TONAL COHERENCE
IN COPLAND’S MUSIC OF THE 1940S

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April 19, 2006
To Annie and Ian
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Abstract

Aaron Copland’s compositions of the 1940s present unique approaches to large-scale tonal organization. Particular pitch classes become central through their perceptual salience. In combination with one another and with surface-level pitch events these centers create a sense of contextually-defined tonal coherence.

The analyses in this study explore the tonal coherence of five Copland works of the 1940s: the first Allegro from Appalachian Spring, the finale of the Third Symphony, the three movements of the Sonata for Violin and Piano, Quiet City, and “Nature, the gentlest mother” from the Twelve Poems of Emily Dickinson. The first Allegro from Appalachian Spring organizes multiple tonal processes around two structural pitch centers, creating a tonal impetus for the climax of the Allegro. The Third Symphony’s finale adapts music from another Copland composition, Fanfare for the Common Man, connecting surface-level thematic elements with shifts between pitch centers and their associated diatonic collections. These shifts are classified according to particular common tones shared by the collections. The finale’s linking of pitch centers, collections, and thematic materials manifests a tonal structure that parallels a motive from the Fanfare across the span of the movement. Analyses of the Sonata for Violin and Piano and Quiet City show contextually-driven ways in which the composer structures entire multi- and single-movement works. Finally, the tonal ambiguities and subtleties of “Nature, the gentlest mother” reflect the song’s poetic text and formal design.

Although the approach to tonal coherence is unique in each composition, subsequent comparison of the analyses highlights recurring features among these works’ methods of tonal organization. These shared features include the varying emphasis of notes, triads, or pitch centers related by interval class 5, the association of thematic identity with particular shifts in pitch centricity, the ramifications of ambiguity for the
tonal organization of the work, and the use of abrupt shifts in centricity to call attention to impending elements of large-scale tonal structure.
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Chapter 1
Introduction

Justification

In 1985 André Previn described the significance of Aaron Copland and his work:

Aaron Copland is such a towering figure in twentieth-century music that he has become synonymous with American music. Time and time again, when my colleagues and I are asked for the inclusion of an American work in a concert (particularly in Europe), what the presenters are actually requesting is a work of Copland’s. This kind of total identification with nationalism in music has also lapsed into the somewhat dangerous field of commercially cynical imitations; for examples, endless film scores attempting to depict certain “outdoor” aspects of America—to be specific, the West and New England—steal blithely from those pages of Copland’s most famous scores which can be imitated but never actually duplicated....

A fascinating aspect of Copland’s compositions is that his particular voice, his handwriting, is discernable even in his most dissonant works.... Copland belongs to that handful of twentieth-century composers who have managed to be instantly identifiable.¹

Previn’s remarks bring to attention two crucial points regarding Copland’s place in twentieth-century music. The first is his significance in performance repertory. Among American composers his is certainly some of the most-often programmed music, and that music’s influence on other composers has spawned an entire school of composition that is frequently identified as “American.” It is not without cause that he has been identified as “the dean of American composers.”² The second point is that Copland’s music—despite


its influence and imitators—represents a compositional voice that is unmistakable. Copland’s output is certainly diverse: his music ranges from the jazz-influenced *Music for the Theatre* to the biting Piano Variations to the cowboy-tune laden *Rodeo* to the serial Piano Quartet. Even so, many studies of his music attempt to define and describe stylistic features that span his broad output. This is certainly at least in part because as listeners we do perceive some consistent elements across this music’s wide stylistic range.

If Previn’s premises are correct—that Copland’s significance to American music is inestimable and his works diverse yet uniquely identifiable—then it is unfortunate that the music theory community has granted relatively little attention to his music. As described above and in the “Literature Review” that follows, a growing interest in Copland on the part of musicologists has led to several studies placing Copland’s music in its cultural contexts and describing its main stylistic features. In contrast, neither *Music Theory Spectrum* nor the *Journal of Music Theory* has ever published a study of Copland’s music. *Perspectives of New Music*’s most recent attention to Copland (aside from Arthur Berger’s 1992 eulogy) is a collection of short essays, poems, and compositions celebrating his eightieth birthday in 1980. In the modern musical world, theorists are uniquely trained and equipped to perform the rigorous analysis needed to bring the critical but elusive

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4These trends in musical academia culminated in 2000 with several events celebrating the centenary of the composer’s birth. Primary among these were a series of sessions jointly sponsored by the American Musicological Society and the Society for American Music in Toronto (1–5 November 2000) and the Copland Centenary Conference at the University of London (18 November 2000). Many of the musicologists who participated as speakers are represented in *Copland Connotations: Studies and Interviews*, ed. Peter Dickinson (Woodbridge, United Kingdom: Boydell Press, 2002).

details of this music to light. That musical world is certainly the poorer for theorists’
inattention to music so frequently performed and cited as influencing an entire national
school of compositional thought.6

One aspect of Copland’s music that certainly deserves consideration is its tonal
organization. In that respect, it presents unique challenges to the analyst. Many passages
exhibit clear pitch centers, though those centers are usually posited through means other
than those of conventional functional progressions. Moreover, the composer’s harmonic
palette includes triads, quartal/quintal sonorities, and other diatonic and non-diatonic
chords that may or may not reference a specific, unambiguous pitch center. Among other
twentieth-century composers his music is often described as “accessible,” perhaps in part
because of its frequent emphasis on diatonic (or nearly diatonic) collections and
presentation of pitch centers. On the other hand, this music resists the use of traditional
analytic tools (e.g., Schenkerian reduction), especially in attempts to describe its large-
scale tonal organization.

The problems surrounding the very meaning of the word *tonal* (and its noun form,
*tonality*) must be addressed in a study such as this. Joseph Straus specifically relates tonality
to the common practice of the later baroque, classical, and romantic periods, and
distinguishes it from the larger concept of *pitch centricity*:

All tonal music is centric, focused on specific pitch classes or triads, but not
all centric music is tonal. Even without the resources of tonality, music can be
organized around referential centers. A great deal of post-tonal music focuses on
specific pitches, pitch classes, or pitch class sets as a way of shaping and organizing

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6In the last several years, the Society for Music Theory has directly sponsored the reading of two
papers about Copland’s music: David Kopf, “Harmonic Process in Copland’s Piano Variations” (paper
presented at the annual meeting of the Society for Music Theory, Madison, Wisc., 6 November 2003); and
Lisa Behrens, “The Twelve-Tone Organization of Aaron Copland’s *Piano Fantasy*” (paper presented at the
annual meeting of the Society for Music Theory, Cambridge, Mass., 11 November 2005). A search of
abstracts from the society’s meetings dating back to 1996 uncovered no other references to Copland or his
music.
the music. In the absence of functional harmony and traditional voice leading, composers use a variety of contextual means of reinforcement.\(^7\)

Straus’s own scholastic work (and that of many others), however, does not rigorously adhere to the connection between traditional harmonic/voice-leading practices and this meaning for *tonal*. When Straus uses the terms “tonal axis” and “tonal scheme” in application to works by Stravinsky he certainly does not mean to evoke the precepts of functional harmonic progression. In fact, his prose belies an awareness of this problem by referring to “tone centers” (rather than “tonal centers”) in Stravinsky’s music.\(^8\)

Other related theoretical terms further cloud the lexicology. *Atonal*, whose root words mean simply “not tonal,” is commonly used to describe music that does not feature a pitch center. Repertoire Straus calls “post-tonal pitch-centric music” typically is not regarded as atonal. *Atonality* refers usually to a lack of pitch centricity and not simply to a lack of functional harmony. (Schoenberg’s own distaste for the term *atonality* in application to his music, while historically interesting, has had little impact on modern usage of the word.)

In my discussion I will use the terms *tonal* and *tonality* to describe any music that exhibits pitch centricity. The equating of *tonality* and *pitch centricity* has antecedents in other authors’ work. In his study of Debussy’s music, for instance, Richard Parks defines *tonality* in a way that reflects the meaning of *pitch centricity* as I will use it in this study: “…I use the term *tonality* to describe pitch materials, processes, and contexts that project into prominence one or more pcs [pitch classes] to a significantly greater extent than (or at the expense of) other pcs.”\(^9\) When employed in this sense, *tonality* does not necessarily connote the voice-leading conventions typical of Western music of the common-practice era. The


essential characteristic of tonality and of pitch centricity is the perceptual prominence of a
given pitch class.\(^\text{10}\) (I will address the specific ways a pitch class might be “projected into
prominence” in chapter 2.)

There are admitted advantages and disadvantages to making tonality and pitch
centricity synonymous. This nomenclature will spare us occasionally from verbose
designations such as “post-tonal pitch-centric structure”; while this remains an accurate
(and most specific) description of this study’s focus, equating tonality and pitch centricity
allows one to speak of “tonal structure” in Stravinsky or Copland without implying
functional harmonic/voice-leading practices. The broader use of tonal will also allow the
opposition between the terms tonal and atonal, manifest in their etymology, to take on real
meaning. This dichotomy is crucial in Copland’s music, which often features passages
that lack a clear pitch center themselves but relate to a nearby pitch center via certain
musical processes. Unfortunately, assigning this meaning to tonality creates inconsistency
with some other authors, including Straus. This inconsistency, however, seems not so
egregious when one considers that Straus himself is not consistent, as noted above. When
discussing specifically the pre-twentieth-century practices Straus associates with
“tonality,” I will refer to “functional” or “traditional” harmonic practice. Post-tonal can
retain the usage Straus gives it, in that it points to music written after a certain historical
period—i.e., after the period in which tonal music was composed exclusively.

If one equates tonal coherence with satisfying the contrapuntal and harmonic
precepts of Schenkerian theory, then Copland’s music (and that of a great many other

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\(^\text{10}\)There appears to be agreement among the authors cited here that pitch centricity is an implicit
abbreviation for pitch-class centricity. Music described as pitch-centric almost invariably focuses not on an
iteration of a single note in a single octave, but rather on a pitch abstracted to include all its potential
manifestations. For example, when a work is described as centered “on C,” what is meant typically is that
the work give special attention to the pitch class C rather than, say, the note middle C. The present study
follows the convention of equating pitch centricity with pitch-class centricity.
post-romantic composers) must be regarded as tonally incoherent. But Copland’s music does feature pitch centers whose presentations and relationships to one another afford the possibility of a different brand of tonal structure. By examining the pitch centers explored in a particular work and the processes used to move between those centers we may find criteria besides a priori harmonic and contrapuntal conventions that illuminate interesting tonal structures.

Straus suggested a method for this type of analysis in “Stravinsky’s Tonal Axis.” He pointed out that, nearly twenty years earlier, Arthur Berger had called for “a new branch of [music] theory.” This new branch would specifically treat the large body of twentieth-century music that is “organized in terms of tone centers but not tonally functional.” While noting earlier attempts to approach this repertoire with quasi-Schenkerian techniques (see the summary of Straus’s discussion of prolionalgional techniques in the literature review below), Berger and Straus were interested in developing a method that would “start from what this music itself is, rather than dwelling upon its deviation from what music was previously.”

Straus’s article specifically develops the concept of tonal axis as a tool for analysis appropriate to much of Stravinsky’s music. The axis consists of a pair of overlapping major or minor triads that each represents a tonal “pole” emphasized in the music. For example, the axis C-E-G-B corresponds to the tonal centers of C (major) and E (minor). In the repertoire explored by Straus, “the polarity embodied in the axis is the principal

11Heinrich Schenker analyzes Stravinsky’s Concerto for Piano and Wind Instruments in Das Meisterwerk in der Musik (vol. 2). “In judging Stravinsky’s music from the point of view of a model derived from the music of the Classic-Romantic period, Schenker is led to dismiss the Piano Concerto as a poor, failed, incorrect tonal piece. Rather than attempting to confront the piece on its own terms, Schenker analyzes the work in traditional tonal terms and rejects it as a failure.” Straus, “Stravinsky’s Tonal Axis,” 263.

determinant of structure. The large-scale harmonic motion in such a piece explores and composes-out that polarity.” The tonal axis additionally “must function in the piece as a referential sonority…. It must be the essential harmonic generator of the piece; other harmonies derive from and relate to it.”

Straus’s approach to twentieth-century pitch-centric music exemplifies the approach advocated in this study, in that his analyses demonstrate methods to connect a composition’s pitch centers (and the movement between them) with events at the music’s surface. At their best, Straus’s analyses provide what I call a _tonal impetus_—a reason, suggested by the relationships between the pitch centers of the work, for significant (often climactic) tonal events in the music to happen as they do. A good example is Straus’s analysis of the first movement from Stravinsky’s _Symphony of Psalms_, in which motion from E centricity to G centricity is dramatized in the tonal axis, E-G-B-D, and in specific musical elements infused into the music’s surface. (This analysis is summarized and compared to the present analytic approach in the following chapter.)

Without turning to the more restrictive criteria Straus presents for applying his tonal-axis theory to selected Stravinsky works, this study explores the organization of the pitch centers in Copland’s music and the relationships between those centers and significant musical events. It shows that this music employs specific processes to establish pitch centers and associate them with one another, giving rise to tonal coherence across large musical spans. The fundamental principle dictating the tonal organization of many Copland works is the association of significant pitch centers with other pitch events in the musical surface in contextually meaningful ways. Although the ways in which pitch centers are posited and linked with other musical elements vary widely from composition to composition, showing that several pieces use such principles will define a meaningful

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method for describing and discussing large-scale pitch organization in post-tonal pitch-centric music by this and other composers.

Copland’s approach to tonal organization is difficult to describe, though pitch centricity would seem to be a crucial feature of his compositional language. Considering the pitch centers of a Copland piece in light of other emphasized musical elements can demonstrate how the work coheres in a contextual, organic way. What is needed is an analytic method that can highlight the ways a given composition’s pitch centers are reflected in other pitch elements of the music. In this repertoire pitch centers, the criteria contributing to the perception of those pitch classes as centers, and other significant elements of the music are coordinated with and reflect one another, coalescing to create a coherent musical structure. The analyses in this study highlight the consistencies between significant elements of a given composition’s musical surface and its collection of structurally important pitch centers across the span of the work.

Survey of Relevant Literature

Many analysts have approached the issues surrounding pitch structure in atonal music. In contrast is the relative lack of attention given to the tonal structures of post-tonal pitch-centric music. Such studies devoted to music by Copland are especially rare.

Copland offers little as to his own conception of how tonal structure operates in his or others’ post-tonal music. In What to Listen for in Music, a book “designed for the layperson and music student, not for the professional musician,” he provides only a hint during a discussion of melody: “At least, in pretwentieth-century music, all melodies tend to center around the tonic. Despite heroic efforts to break the hegemony of the tonic, it is
still, though not so obviously as in former times, the central point around which other notes tend to gather.”

Unfortunately, Copland’s music remains underrepresented in published analysis. There are several biographies focused on Copland, most notably by the composer himself (co-written with Vivian Perlis in the composer’s last decade) and by Howard Pollack (published in 1999). Neil Butterworth also surveyed Copland’s output in a bibliography published in 1985. Earlier efforts to address Copland’s style—written in the midst of the composer’s career—include monographs by Julia Smith (1952) and Arthur Berger (1953). In most of these cases, Copland’s music is described in prose or excerpted a few measures at a time to illustrate its stylistic features and trends, including its relationships with jazz and American folk music, its approach to texture, the construction of selected harmonies and melodies, and occasionally, in broad strokes, its formal design. Tonal centers are sometimes named in individual sections or movements, but large-scale tonal structure is hardly addressed in this literature. Excerpts from Butterworth’s discussion of the Third Symphony’s finale, which in many ways typifies the approach of these bibliographies to Copland’s music, follow.

The movement opens in the key of A flat with a pianissimo version of the fanfare on flutes and clarinets. At the entry of the fanfare, itself at the eleventh bar, there is an abrupt change into C major. The fanfare, for brass and percussion, is then played in its complete 1942 version. Between the fanfare and the allegro, Copland inserts a five bar transition passage… The hints on the oboe in the above extract become the allegro theme itself as the music settles firmly into D major.

…The recapitulation, following a fff chord, is “far from literal,” a characteristic of all his works in symphonic form, but certain figures and


treatments of themes already heard make re-appearances sufficiently consistent to indicate that the development has formally come to an end and the recapitulation has begun, although now in D flat, a semitone lower than the exposition.\textsuperscript{16}

This treatment of pitch centers—inasmuch as they are actually named in the analysis—is actually remarkable in comparison to most of the content of these monographs. Even the identification of tonalities is frequently omitted in analyses from this literature, depending upon the general stylistic features the author intends to highlight. These writings serve the laudable purpose of introducing Copland’s overall musical approach and development as a composer, but as a result simply do not focus upon the kinds of analytic concerns that are addressed in the present study.

Following Copland’s death in 1990 there has emerged a nexus of scholarship surrounding the possible political and personal influences on his compositional approach and evolution. Elizabeth Bergman Crist, Jennifer DeLapp, Nadine Hubbs, Daniel Mathers, David Metzer, Pollack, and several others have each put forth interesting and often compelling theories positing connections between Copland’s compositional choices, his leftist political leanings, and his vaguely-closeted homosexuality. Certain aspects of his music might therefore be read as the composer’s responses to specific crises (such as his testimony before Joseph McCarthy and the House Un-American Activities Committee in 1953) or as implicit efforts at self-defining individuality in a right-leaning, homophobic culture.\textsuperscript{17} Without devaluing this exploration of Copland’s personal context in the

\textsuperscript{16}Butterworth, \textit{The Music of Aaron Copland}, 109–10. Butterworth’s claim that the \textit{Fanfare for the Common Man} is, in this finale’s opening, “played in its complete 1942 version” is at the least an oversimplification. The changes wrought on this fanfare as it is merged into the Third Symphony’s finale are treated in detail in chapter 4.

America he helped to define musically, it must be pointed out that the composer’s fundamental methods of tonally structuring his music are almost completely unaddressed in this recent literature. Hubbs, for instance, locates Copland as the hub of a network of New York-based, gay, tonal composers whose work today defines the conventional view of “American music”—as much is implied in Previn’s remarks at the beginning of this chapter. But Hubbs’s theses do not depend upon detailed examination of Copland’s music other than to identify it as frequently “tonal.” If this music’s employment of tonality is one of its quintessential features, as Hubbs suggests, then the impact of pitch centers on the architecture of the music is certainly worthy of further investigation.

Of the smattering of theses and dissertations on Copland’s music in the last few decades, most were written to fulfill requirements for degrees in musicology or composition. The analyses contained here, for the most part, do not tend to treat issues of large-scale tonal organization. Two notable exceptions are Richard Sayers’s “Tonal Organization in Selected Early Works of Aaron Copland” and Russell Todd Rober’s “Tonality and Harmonic Motion in Copland’s Appalachian Spring.” Sayers blends Schenkerian and pitch-class set theories in treatments of several works from the 1920s as well as the Statements for Orchestra of 1935; the issues raised by this analytic work parallel those in similar analyses by Roy Travis and others (discussed below). Rober’s approach to Appalachian Spring has similarities in certain details to the analysis presented in chapter 3, though in the end he attributes the work’s large-scale tonal coherence to a general


emphasis on third relationships (in keys and in other musical elements) rather than showing a specific tonal structure for the work.\textsuperscript{19}

One dissertation that relates more directly to the present study is Stephen Creighton’s, completed in 1994 at the University of British Columbia. Creighton focuses on one Copland technique—the preservation of “common tones” across changes in tonal center and/or referential collections—and its ramifications for tonal design in four selected works. Creighton provides interesting discussions of how Copland’s music establishes tonal centers and moves from one to the next, and thus provides a precedent for this study. Nevertheless, his analytic concerns differ from those of this study in many respects. One of his main goals is to show

that Copland’s “popular” and “serious” works share a common set of tonicizing techniques, which are used to establish tonics and to modulate from tonic to tonic. These techniques focus on the connections between the pc collections associated with successive tonics by emphasizing pitch-classes that are common.\textsuperscript{20}

In his efforts to treat successions of tonics in Copland’s music, Creighton tends to de-emphasize any potential tonal ambiguity a given passage might display (though, in his defense, he usually acknowledges the potential for such ambiguity). He also notes interesting patterns in his series of tonics (and pitch classes shared by those tonics’ referential collections). In contrast, the analytic approach I advocate in this study values tonally ambiguous processes. Some passages do not perceptually project a pitch center when considered in isolation, but the processes they employ might be shown to predict or reinforce the main pitch centers of the work. My approach will posit a structural

\textsuperscript{19}Russell Todd Rober, “Tonality and Harmonic Motion in Copland’s \textit{Appalachian Spring}” (M.M. thesis, University of North Texas, 1993). See Rober’s pp. 85–87 for his conclusions about third relationships in \textit{Appalachian Spring}.

hierarchy between passages/processes most strongly asserting tonalities and passages/processes connecting them. Creighton’s study does not make such distinctions between the varied tonal processes of a given work.

Mathers’s 1989 master’s thesis focuses on defining and describing the cadential language of Copland’s Sextet (a 1937 arrangement of the Short Symphony, completed in 1933). The Sextet, like much of Copland’s output, places emphasis on fifth-related pitch classes. In his analyses Mathers selects a single pitch class as a “fundamental” that is connected via perfect fifths to chains of more perfect fifths above and below. These chains surrounding the fundamental constitute “dominant” and “subdominant” poles respectively. As the music progresses, the fundamental is either reinforced through symmetrical exploration of both poles or weakened through asymmetrical emphasis of one pole over the other (according to Mathers, “bilateral symmetry engenders stability”). Attention to perfect-fifth relationships is also crucial in the present study of Copland’s later music, though the natures and ramifications of these relationships vary widely from piece to piece, impacting tonal organization in different ways and to different extents.

Another author who has given thought to the tonal structure of Copland’s music is Larry Starr. He has provided an analysis of Music for the Theatre that defines a dichotomy between two “voices.” These voices are introduced in the composition’s first movement: “forte versus piano, detached versus legato, ‘sharp’ and ‘nervous’ versus ‘espressivo,’ brass sonority versus woodwind sonority, an implied center of G versus an implied center on B…” Starr associates specific tonalities with clusters of other musical dimensions to distinguish these voices, which in his discussion account for various events as the piece

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progresses. By making mention of certain pitch centers’ roles in Music for the Theatre, this brief analysis thus presages the context-driven approach to uncovering tonal structure advocated in the next chapters. More recently, Starr has completed the only published monograph focusing on a single Copland work, the Twelve Poems of Emily Dickinson.23 The issues raised by this book are treated in chapter 7 alongside my analysis of the cycle’s first song.

Some theorists have targeted post-tonal centric music by composers other than Copland. Roy Travis and Felix Salzer are two early proponents of a movement to apply Schenkerian/prolongational analysis to such repertoire. Travis, for instance, posits the prolongation and unfolding of dissonant harmonies as the basis for the compositional background of a work by Bartók, and uses hierarchical, reductive graphs reminiscent of Schenker’s to express these prolongations.24 Salzer’s Structural Hearing actually includes brief analyses of passages from Copland’s music, including the first movement of the Piano Sonata, music from the film score to Our Town, and Appalachian Spring.25 In each case, the analysis attempts to reconcile the music in question with the norms of functional harmony and species counterpoint. The most extended analysis (of the end of the Piano Sonata’s first movement) depends upon the prolongation of a polychord consisting of a tonic triad and its minor dominant. Salzer’s prose does not describe the criteria employed to identify or label such a prolongation.

An early Allen Forte monograph (Contemporary Tone-Structures, 1955) includes an analysis of the third of Copland’s Four Piano Blues. Though Forte does not explicitly invoke


Schenker when describing his analytic method, the analysis is reductive; Forte prescribes a set of salience conditions to justify the derivation of each deeper, less-detailed level from the previous. The analysis begins with this claim: “The entire work is heard as an expansion of the single sonority: B♭-D♭-F-Ab.” Forte’s approach can be grouped with those of Travis and Salzer in that they each view certain musical surfaces as prolonging a dissonant harmony.

Travis, James Baker, and others have used quasi-Schenkerian prolongational techniques to treat atonal music as well. These analyses purport to demonstrate prolongations of significant pitch-class sets in perceptually atonal works by Schoenberg, Webern, Scriabin, and other composers. In contrast with the atonal repertoire explored in these analyses, Copland’s music tends to be more avowedly tonal (with significant exceptions). In any event, Fred Lerdahl criticizes this pitch-class set/Schenkerian hybrid approach as “theoretically unsatisfying” because “it does not establish any real connection between the theories of the two idioms.” Moreover, Joseph Straus (in several writings) provides compelling arguments against the use of prolongational analysis in post-tonal music. Those arguments include:

1. Traditional tonal music as understood in Schenker’s theory provides clear criteria by which consonances and dissonances can be distinguished. Therefore,

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27Ibid., 63.


distinctions between structural and embellishing notes in a post-tonal musical surface tend toward the arbitrary.

2. Consonant notes and chords must be further assigned relative structural weights for prolongational analysis to answer the questions that arise at more remote levels—which consonances serve to prolong others, and which are thereby prolonged? Such a hierarchy of consonances is difficult to prescribe absent the tonic/dominant relationship.31

3. Distinction between motion within a harmony (arpeggiation) and motion between harmonies (voice leading) becomes problematic when the intervals suggesting each type of motion are themselves no longer discrete. In Schenker’s model, harmonies are constructed with the intervals of the triad (thirds, fifths, and their inversions) while voice leading takes place by step. When the harmonies being “prolonged” are no longer necessarily triadic, intervallic functions become inconsistent, and the vertical and horizontal dimensions are in danger of becoming confused.

As described above, Straus’s “Stravinsky’s Tonal Axis” demonstrates an analytic method for similar repertoire (certain pitch-centric music by Stravinsky) connecting features of the music’s surface with the tonalities explored therein. The value in this method, I believe, is its willingness to consider each musical surface as a potential

31Steve Larson has argued that the problem described here (as applied to traditional tonal music) is in fact the converse: consonance is defined by the object being prolonged, rather than consonance defining the prolongation. Steve Larson, “The Problem of Prolongation in Tonal Music: Terminology, Perception, and Expressive Meaning,” Journal of Music Theory 41, no. 1 (1997): 101–36. Straus’s response acknowledges that some give-and-take between basic assumptions about consonance and actual musical contexts is needed for sensitive analysis, but stands by his basic premise: “Unless you can reliably and consistently distinguish between consonant/stable/supported tones and dissonant/unsupported/unstable tones and unless you can reliably and consistently describe the embellishing relationships that tie the latter to the former, then you will have difficulty in producing persuasive prolongational analyses of any music.” Joseph Straus, “Response to Larson,” Journal of Music Theory 41, no. 1 (1997): 138.
generator of a self-defining tonal structure, in contrast to an approach that compares a
given musical object with precompositional (indeed, preanalytical) precepts.

If, for the reasons described above, one rejects prolongational analysis as a means
for describing the tonal structure of post-tonal pitch-centric music, then one must define
other methods for determining relative structural weights of pitch centers and musical
processes connecting them. In this light, the salience conditions proposed by Lerdahl for
analysis of atonal music may prove useful.32 The experienced listener posited by Lerdahl
and Ray Jackendoff’s A Generative Theory of Tonal Music intuitively negotiates conditions of
tonal stability with the relative salience of pitch events to form an impression of the work’s
structure.33 For instance, a long appoggiatura might exhibit a great deal of salience via its
metrical and agogic weight and its dynamic and registral emphasis, but it is subsumed
structurally by its resolution because it is not stable in the context of the surrounding
harmony. Lerdahl suggests that in atonal music, the relative absence of stability
conditions “makes salience cognitively all the more important. I argue that listeners
organize atonal surfaces by means of it. As a result, atonal music collapses the distinction
between salience and structural importance.”34 In the absence of traditional tonal
structure, he proposes favoring more salient elements as structural.35

I believe that analysis of post-tonal centric music also demands an emphasis on
salience. Any of the salience criteria outlined by Lerdahl has the potential to help define
pitch centers and parse the processes linking them in Copland’s music. Additionally,

33Fred Lerdahl and Ray Jackendoff, A Generative Theory of Tonal Music (Cambridge, Mass.: MIT
Press, 1983).
34Lerdahl, “Atonal Prolongational Structure,” 73.
35Lerdahl’s salience conditions are enumerated explicitly in the next chapter. In summary, they
place greater weight upon events that are louder, in strong metrical positions, in extreme registers, longer,
timbrally emphasized, etc. Lerdahl, “Atonal Prolongational Structure,” 73–74.
though, some elements of tonal stability may also obtain in Copland’s music. For example, triads frequently appear in prominent roles in his compositions—because of their perceptual identity as triads, our conditioning as tonal listeners creates inevitable foci around their roots and they therefore must be granted some structural weight.

Lerdahl seems to have come to a similar conclusion: “I see little interest in making a theory of atonal music that cannot find its place in a general theory of music. One normally listens to Bach, Brahms, Bartók, and Boulez with the same ears, adjusting for the manifest differences. A music theory should reflect this continuity.” For this reason Lerdahl adds to salience a limited number of “principles of perceptual organization” that have roots in traditional tonal practice. In summary, these principles allow for pitches to ornament one another based upon specific criteria grounded in current perceptual theory of consonance and dissonance. This supplementation of his salience conditions is supported by Nicola Dibben’s 1999 study of the perception of atonal structures, which found that “listeners hear atonal music in terms of the relative structural stability of events and that this mode of hearing is influenced by dissonance and horizontal motion as well as salience.” Since I (and Straus and Berger) have proposed to approach post-tonal pitch-centric repertoire by giving more weight to contextual criteria, it follows that the salience of a given musical event, and the ways in which we perceptually connect it to other events, are important factors in determining its role in the work’s tonal structure.

30Fred Lerdahl, “Spatial and Psychoacoustic Factors in Atonal Prolongation,” Current Musicology 63 (fall 1997): 9. Lerdahl’s use of the term prolongation is explicitly and consistently non-Schenkerian; he equates prolongation simply with the repetition of an event (often after its absence). This contrasts with Straus and Larson, who describe it more specifically as the ornamentation of a given event by a different event. My discussion of Lerdahl here is presented so as to avoid this semantic problem, but the reader should be aware of the issue when consulting these authors’ writings.


**Organization of this Study**

Chapter 2 of this study enumerates and addresses the analytic issues raised by the pitch structure of Copland’s music. The advocated approach catalogs the criteria by which analytic decisions are made, while providing rationale for an especially contextually-sensitive approach to this music. The discussion includes examples demonstrating how the present analytic approach has antecedents in other repertories and analyses, as well as showing that approach’s potential for illuminating the tonal structure of this repertoire.

Chapters 3 through 7 bring this analytic approach to bear on several Copland works completed between 1940 and 1950. I have chosen to focus on this decade of Copland’s career for a combination of reasons. His tonal language, which had evolved over the first stages of his career, crystallized during this period in a series of works for varied performing forces that exhibit a focus on certain elements today commonly associated with the composer: pandiatonicism, pitch centricity, harmonies and melodies emphasizing interval class 5, and melodic material either derived from or reminiscent of American folk music. On one hand, Larry Starr’s observation that “attempts to categorize Copland’s output in terms of style… usually run into difficulty at every turn” is reflected inasmuch as my analyses show that each work’s approach to tonal structure is unique to that work. Even so, works like *Quiet City* and *Appalachian Spring*, completed in 1940 and 1944 respectively, certainly sound more like one another than do, for instance, the Piano Concerto and *Vitebsk*, which were written just two years apart (in 1926 and 1928). When pioneering an analytic approach to a repertoire that has not been previously explored in great depth or detail, it makes sense to begin with a collection of compositions that exhibit some surface commonalities. The consistencies that can be discerned in this

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period of Copland’s compositional maturity suggest that this part of his output may constitute an appropriate analytic beachhead. In addition, Copland’s most famous and oft-performed compositions hail from the 1940s. As I have already proposed, scrupulous exploration of the analytic issues surrounding such well-known music is long overdue.

Finally, Copland’s music of this period tends to be more unabashedly and perceptually pitch centric than either his earlier or later music. Examples of Copland’s earlier works that are less focused on pitch centers include Vitebsk, the Symphonic Ode (1929), and the Piano Variations (1930), as well as long stretches of the Short Symphony (1933). Following the works of the 1940s, Copland turned immediately to serialism in pieces like the Piano Quartet (1950), the Piano Fantasy (1955–57), and Connotations (1962) while also continuing to write pitch-centric diatonic music in works like The Tender Land (1952–55) and Dance Panels (1959–62). Clearly, a new examination of Copland’s approach to pitch organization benefits from concentrating on a period in which pitch centricity is the norm.

Chapter 3 therefore begins this study’s detailed analyses with an examination of the first Allegro section from Appalachian Spring. This Allegro exhibits a clear organization of tonal processes around two structural pitch centers. The ways in which these processes link these pitch centers are made apparent in the music’s surface, making it relatively easy to trace the ways in which pitch centers and processes are associated with one another. The chapter concludes by comparing Appalachian Spring’s coda with the Allegro to demonstrate how pitch centers can relate to one another across the span of an entire composition.

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40 Other works from the 1940s not explored in this study that further demonstrate the homogeneity of this period include the Piano Sonata (1939–41), Lincoln Portrait (1942), Rodeo (1942), and In the Beginning (1947), as well as several film scores (Our Town, The Red Pony, and The Heiress).

41 This is not to suggest that perceptually atonal music cannot assert structural pitches, only that a work’s assertions of centric pitch classes constitute useful signposts to its tonal organization.
Chapter 4 focuses on the finale of Copland’s Third Symphony (completed in 1946). This movement offers a more complex set of contextually-defined relationships among pitch centers, shifts between pitch centers, and other pitch elements. Specifically, the ways in which this movement appropriates music from another Copland composition, *Fanfare for the Common Man* (1942), leads to a set of associations between thematic elements and different types of tonal shifts as classified according to the shifts’ attention to specific common tones. The tonal structure of the movement interacts with its formal organization in interesting ways and also parallels a motive from the *Fanfare* across the span of the movement.

Chapters 5 and 6 explore the tonal organization of two complete Copland works from the 1940s: the Sonata for Violin and Piano (1943) and *Quiet City*. These analyses afford the opportunity to consider contextually-driven ways in which the composer structures entire multi- and single-movement works. Chapter 7 investigates the tonal treatment of a vocal work, “Nature, the gentlest mother” from *Twelve Poems of Emily Dickinson* (1949–50). This song’s tonal treatment, when carefully considered in light of its ambiguities and subtleties, demonstrates a reflection of its text not illuminated in existing analyses.

The Violin Sonata, *Quiet City*, and “Nature” each represent a unique configuration in terms of organizational scope. *Quiet City* is a single-movement work lasting about nine minutes, the Violin Sonata is in three movements lasting a total of about twenty minutes, and “Nature, the gentlest mother” is the longest of the songs from its cycle at approximately four minutes. Considered alongside the excerpts from *Appalachian Spring* and the Third Symphony, this repertoire represents, within the gamut of Copland’s compositions of the 1940s, a wide variety of performing forces—from full orchestral works to trumpet and English horn with strings to solo instrument with piano to solo song. The poetic text of the last work also affords additional analytic opportunities.
The analytic approach of this study thus demonstrates flexibility in its treatment of this relatively diverse cross-section of Copland’s output.

As suggested above, and explained and illustrated in the next chapter, the analytic approach advocated here depends upon a contextually-sensitive treatment of tonal organization. This allows for each composition’s unique correspondences between pitch centers and other musical parameters to “speak for themselves” in a self-defining, organic way, rather than being tethered to a single theory of tonal structure meant to explain a wide swath of repertoire. Even with priority assigned to the unique tonal characteristics of each piece, broad correspondences illustrating Copland’s continuing concern for internal tonal coherence emerge from this collection of analyses. The final chapter of this study focuses upon those correspondences, creating a perspective of Copland’s approach to tonal structure in the 1940s. The chapter concludes with suggestions regarding future avenues of related research and speculation about that research’s possible results.
Chapter 2
Analytic Issues

Overview

Organization of this Chapter

The following chapters demonstrate an analytic approach in which pitch-centric music by Copland displays contextual tonal coherence. This method begins by identifying the most significant and salient pitch centers of the work. Subsequent probing of the musical surface uncovers the contextually sensitive ways in which other musical parameters correlate with those structural pitch centers. That is, specific musical elements will be shown to parallel pitch centers and the distance between them, thereby suggesting, summarizing, and providing impetus for the larger-scale movement from one pitch center to another. Attention to the correlations between structural pitch centers and features of the music’s surface illuminates the tonal coherence of Copland’s compositions.

This chapter begins with synopses of analyses of earlier works by two other composers—one a common-practice-era sonata by Beethoven, the other a movement by Stravinsky as analyzed by Joseph Straus. Both analyses will demonstrate that, whether a given work exhibits functional tonality or post-tonal pitch centricity, tracing the correspondence of the work’s pitch centers with other pitch elements of the music’s surface can elucidate the work’s tonal coherence. While the music explored in the present study differs in specific ways from that of the Beethoven and Stravinsky analyses below, focusing on the parallels between pitch centers and other musical elements is hardly a new endeavor, and in fact has proven fruitful in a variety of repertoires—as these analyses illustrate.
An outline and justification of the analytic principles involved in identifying and assigning structural value to pitch centers and other pitch events follow the consideration of these two analyses. As applied to Copland’s music, the criteria by which such decisions can be made are categorized as salience criteria, tonal-residue criteria, and contextual criteria. By way of demonstrating explicitly how these criteria might apply and interact in a given piece, analytic examples from Copland works are provided. One example shows how a pitch center can be established emphatically as structurally significant to the composition, one shows how analytic principles interact to create tonal ambiguity that has consequences for the piece’s tonal structure, and one shows how a pitch event can be aligned with surrounding pitch centers without itself projecting a center. This chapter concludes with a discussion of certain terminology as it will be used in the remainder of this study.

Analytic Antecedents

The demonstration of a given composition’s tonal coherence by paralleling its pitch centers with other musical elements is not a new analytic tactic. As the following analyses of music by Beethoven and Stravinsky will show, the approach to tonal alignment advocated in this study has antecedents in music predating Copland’s and in analyses predating this approach. However, differences in Copland’s treatment of tonality require an analytic technique at variance in certain ways from the methods shown in these samples from other musics. These analytic synopses therefore serve two purposes. First, they illustrate that the linkage of tonal centers to other musical elements yields worthwhile results in a large cross-section of repertoire cutting across stylistic and historical boundaries. Second, the following analyses of other composers’ music serve to highlight the ways in which an investigation of Copland’s tonal structures necessarily differ. If Copland’s works share with so much other previous music a preoccupation with
pitch centricity, then it seems appropriate to consider analytic approaches to those earlier repertories that place importance on pitch centers—while bearing in mind that dissimilarities in Copland’s tonal language will necessitate differences in its analytic treatment.

Beethoven’s Piano Sonata Op. 14, No. 1—and especially its second movement—demonstrates how pitch centers can reflect other dimensions of the music’s surface. The second movement of the sonata is cast as a minuet and trio in E minor. The opening minuet ends with an E-major chord, supplied by the typical Picardy-third inflection of a tonic minor triad. The trio that follows, however, is in the key of C major. The single common tone shared by the E-major and G-major triads, E, is emphasized by its isolation just as the minuet ends and the trio begins. This modulation from E to C is shown in example 2.1.


The juxtaposition of keys related by major third—here, E and C—is not so unusual in Beethoven’s output. What is interesting for our purposes is that Beethoven parallels this juxtaposition of E and C elsewhere in the movement and the sonata. This movement’s first two harmonies are in fact E minor and C major, as shown in example 2.2.
Example 2.2. Beethoven, Op. 14, No. 1, II, mm. 1–2

The melody’s hovering around E₄ in these two measures emphasizes this common tone, just as E is stressed at the juncture between the minuet and trio. The first two bars of the movement thus constitute a microcosm of the movement’s eventual tonal progress toward C. The minuet goes on to tonicize C in mm. 17–24, reaching a half cadence in C at the end of this phrase and thereby further forecasting the trio’s C centricity. Finally, the first movement of this sonata in E major offers in its recapitulation a striking presentation of a theme in C major. Aside from E and its dominant, C is the only pitch center explored in this movement outside the development—and perhaps half of the development is itself focused on C major. The significance of C major in the context of a reigning E tonality is suggested long before the second movement’s trio is reached.

The multi-leveled parallelisms juxtaposing C with E form a fascinating subplot to this otherwise typical early nineteenth-century sonata. In this case, the conventions of harmony and voice-leading, so well articulated by Schenker, govern the large-scale tonal organization of this piece. In this perspective, the three-part form of the second movement results from the large-scale contrapuntal progression i–VI–i (E–C–E), but at deeper levels gives way to the essential harmonic/contrapuntal structure permeating this repertoire: i–V–i. This perspective is illustrated in the graph of example 2.3.¹

The minuet’s opening harmonies, as well as the first movement’s forecasting of C major’s importance, neatly parallel the movement from i to VI. However, this parallel between the movement’s pitch centers and such surface features is not essential to the logic of the movement’s background tonal structure. At the deepest level, the movement’s expression of a tonal archetype, i–V–i supporting $\hat{3}-\hat{2}-\hat{1}$, ensures its coherence. With or without the interesting parallelisms explored above, the entire musical surface can be reconciled as an Auskomponierung of a tonic chord via specific harmonic and voice-leading conventions taken for granted by this approach. Suppose for a moment that m. 2 simply repeated the opening bar’s E-minor harmony rather than moving to C. The correspondence between this feature of the musical surface and the movement’s middleground would dissolve, but the background i–V–i would continue to define the movement’s deepest tonal structure. The movement’s use of VI at multiple levels is ultimately nonessential to the music’s tonal coherence at the largest level.

In contrast, much of Copland’s work displays similar parallels between pitch centers and surface-level musical phenomena without consistently attending to the other traditional principles of voice-leading and harmonic functionality. As a result, a view of tonal structure that hinges upon reducing a musical surface to a consistent background via a set of commonly-held harmonic and voice-leading conventions is unable to come to
grips with this repertoire. Instead, a sense of internal consistency between pitch centers and pitch elements of the musical surface, modeled by the multi-leveled E/C relationship of Beethoven’s minuet and trio, provides contextual coherence in Copland’s works. I propose that these pitch centers themselves, their methods of presentation, and their relationships to the musical surface are aligned with one another in aesthetically satisfying ways. The difference from this Beethoven example is that, in Copland’s case, this tonal coherence exists divorced from any pre-existing harmonic or contrapuntal conventions allowing for reduction to a background (like I–V–I) that is consistent from work to work.

A similar case for describing tonal structure via correspondences between pitch centers and musical events is made by Straus in regard to certain repertoire by Stravinsky. In “Stravinsky’s Tonal Axis” Straus identifies a “significant body of works by Stravinsky” that could be viewed as being organized around a pair of overlapping major or minor triads that, considered together, take the appearance of a major or minor seventh chord. Straus designates this pair of triads the work’s tonal axis, and as such it displays two other characteristics:

It must function in the piece as a referential sonority. It must occur prominently as a discrete harmony within the piece, particularly in cadential situations. It must be the essential harmonic generator of the piece; other harmonies derive from and relate to it.

It must embody a conflict or polarity between its two constituent triads. All axes have the appearance of seventh chords, but not all seventh chords function as tonal axes. Each of the overlapping triads which constitute the axis must be shown

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2 As Straus and Lerdahl have argued (see the literature review in the previous chapter), the absence of such conventions in much post-tonal music seriously hinders the ability of a prolongational analytic approach to distinguish that which is structural from that which is ornamental. Copland’s music does sometimes evoke elements of common-practice-period harmonic and voice-leading practice, and as a result impact tonal structure at local levels (described below as “tonal residue”). Nevertheless, such evocation is not consistently present, and Straus and Lerdahl’s objections therefore also apply to this repertoire. Schenkerian prolongation depends upon harmonic and contrapuntal conventions that simply do not govern Copland’s music.
to have a palpable identity and centricity of its own.³

One of Straus’s analyses employing this tonal axis theory examines the first movement of Stravinsky’s *Symphony of Psalms*. Straus finds in this movement’s famous opening chord a “musical tension” embodying “the central tonal polarity of the movement which governs all the principal motions.”⁴ This chord, shown in example 2.4, is literally an E-minor triad, but its idiosyncratic spacing and doublings places unusual prominence upon its third, G.

![Example 2.4. Stravinsky, *Symphony of Psalms*, opening chord](image)

Straus goes so far as to suggest that “the particular disposition of this chord might be said to imply the pitch D as an overtone.” This chord thus fulfills the requirement that the tonal axis be “present” at the music’s surface in a prominent way—the E-minor triad in this context also points to a potential overlapping G major triad. The chord of example 2.4 is in fact repeated as a simultaneity several times throughout the movement with the same spacing and orchestration, and Straus points out that, just before one of its restatements (in the measure before rehearsal number 9), the pitches of the chord are arpeggiated with the “missing” D. Thus, the opening chord of the movement points primarily to E, but implies that G has importance to the movement as well.

This E/G duality is manifested in the organization of the rest of the movement. The movement ends with a climactic arrival on a G major triad, reinforcing the G side of

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⁴ Ibid.
the tonal axis that was left implied at the movement’s opening. Moreover, Straus also finds that the tension between E minor and G major is played out elsewhere in the music:

Throughout almost the entire movement, motion is directed toward the EGB part of the axis by means of the association of E and F. In numerous passages, beginning with the first choral entrance [shown below in example 2.5], the F functions as an upper neighbor to E. Throughout the movement, the appearance of F signals a return to E. Through the close association of these two pitches and through the embellishing role of the F, the tonal motion is confined around the E. At the final cadence, however, the firm relationship between E and F is disrupted: the F passes upward to G rather than moving back down to E...\(^5\)

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Example 2.5. Stravinsky, *Symphony of Psalms*, I, rehearsal number 4

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^5Ibid., 268.
Straus’s example 6, reproduced here as example 2.6, shows the end of the movement superimposed over his analysis. The analysis illustrates that, in the melody, E is finally allowed to ascend to G through the F that previously served as a neighbor to E.

Example 2.6. Straus’s example 6 (Symphony of Psalms, conclusion of first movement)\(^6\)

\(^6\)Ibid., 270.
The lower portion of his sketch shows how the bass moves from E to G as well, though in this case the motion is downward through a sixth. The tension between G and E suggested by the tonal axis, implicit in the work’s opening chord and its repetitions, is here expressed by the climactic way in which G is finally attained via motion from E.

By considering the pitch centers of this work and the ways in which motion between them is manifested, an analysis of its tonal structure that links important features of the music’s surface with the movement’s pitch centers becomes possible. Straus’s demonstration of a commonality among several Stravinsky works—their use of similarly constructed “tonal axes”—certainly generates additional analytic interest. As we apply a similar approach to Copland’s music, however, we should not expect to find that his tonal structures are similarly governed by pairs of third-related major or minor triads, or that a fused version of such triads will be apparent in the music itself. The value of Straus’s analysis to the present endeavor is its modeling of a contextually sensitive approach to a pitch-centric musical surface. By considering the main pitch centers of this Stravinsky movement in relation to other significant pitch elements of the music (the opening chord, the neighbor treatment of F, and the climactic arrival on G), Straus is able to show a remarkable level of coherence and correspondence among all these pitch aspects. Unlike the tonal-axis theory of Straus’s article, the main goal of this study is not to posit a single overarching approach governing tonal structures in a body of works by Copland (though commonalities across this repertoire are highlighted in the concluding chapter of this study). Instead, each analysis will seek to describe the tonal organization of a given musical work as that work itself defines and presents it.

The present methodology for analyzing Copland’s music hinges upon principles of salience, tonal residue, and contextual criteria, which will be defined and described

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7 Straus uses his tonal axis theory to treat the first and third movements from the Symphony of Psalms as well as the Dumbarton Oaks Concerto, Oedipus Rex, and the Symphony in C.
below. The individual analyses of excerpts and complete works by Copland deal with these issues in ways that are unique to each piece, but as was the case with these analyses of Beethoven and Stravinsky works, each analysis engages issues of pitch centricity, connections between pitch centers, and alignment of those centers with other musical parameters. This concern with tonal coherence, as defined by the unique alignment of pitch centers with other elements in an individual work, is the common ground linking Copland’s music and this analytic approach with the music and analyses explored above.

**Analytic Principles**

*Lerdahl’s Salience Conditions*

As discussed above, the main goal of this analytic approach is to show how the relationships between pitch centers of a given work and the movement from one center to the next are paralleled in surface musical events. Above all, this analytic methodology proceeds first from the way each musical surface presents pitch centers. The approach starts directly with questions such as, “What pitch centers are (most) emphasized by this music?” “How does this music foreshadow the arrival of each pitch center?” and “In what ways is the movement between important pitch centers suggested by other pitch events?” The answers to such questions will suggest ways that the work’s pitch centers and other specific musical processes are connected, creating a cohesive whole.

In order to answer these questions, criteria by which pitch events and pitch centers are identified and classified as more or less structural must be established. In prolongational theories meant to address common-practice tonality, the conventions of voice leading and harmonic progression fill this role, as seen above in the Beethoven movement. Given the different treatment of tonality in Copland’s music, we must define other means of labeling and linking pitch centers. It therefore seems appropriate to
generate a method that places higher value on those pitch classes that the music itself
emphasizes. All things being equal, the more salient a pitch event is, the more analytic
value it should carry.

For this reason, the salience criteria catalogued by Fred Lerdahl in “Atonal
Prolongational Structure” will prove helpful. His theory, as described in this article, is
clearly geared toward the atonal repertoire of Schoenberg, Webern, and others; much of
the analytic technique he advocates is immaterial to the present methodology. However,
his approach hinges upon the relative salience of pitch events, as he argues that “atonal
music collapses the distinction between salience and structural importance.” To parse
the music he is addressing (in “time-span reductions”), he outlines a set of “salience
conditions” that neatly summarizes the ways in which a pitch event might be stressed.
Lerdahl points out that salience also plays a crucial role in understanding traditional tonal
music, and convincingly states that “[w]e do not hear Elektra and Erwartung in completely
different ways…. In short, the historical development from tonality to atonality (and back)
is richly continuous. Theories of tonality and atonality should be comparably linked.”
Any compelling technique linking these musics and theories with each other and with our
experience of them would certainly place a premium on the salience of pitch events.

Lerdahl’s salience conditions prefer an event that is

(a) attacked within the region [i.e., begun within the rhythmic group this event is
meant to represent];
(b) in a relatively strong metrical position;
(c) relatively loud;
(d) relatively prominent timbrally;
(e) in an extreme (high or low) registral position;
(f) relatively dense;
(g) relatively long in duration;
(h) relatively important motivically;

Lerdahl, “Atonal Prolongational Structure,” 73.
Lerdahl, “Atonal Prolongational Structure,” 73.
Ibid., 67.
(i) next to a relatively large grouping boundary;
(j) parallel to a choice made elsewhere in the analysis.10

Omitted from this list are numbers Lerdahl uses to quantitatively distinguish the “relative strengths” by which each criterion is applied. Elsewhere, Lerdahl admits that “quantitative measures of salience are hard to establish because the perception of salience is so contextual.”11 Because the methodology described here will not culminate in time-span reductions (or, for that matter, in “prolongational reductions” like those shown by Lerdahl), because additional criteria besides those of Lerdahl will be used in this method, and because the tonal vocabulary of the present repertoire is so different from that for which he devised his “relative strengths,” those strength factors will not be invoked. The worth of Lerdahl’s theory to this analytic approach is that he makes explicit the myriad ways in which a pitch or pitch event can assert itself. In some passages, we shall see Copland invokes several of these conditions simultaneously in regard to a single pitch center, thus creating great emphasis on that pitch class and requiring our analysis to similarly regard that center as structurally important. At other times, a pitch center might be more weakly asserted via only one or two of these conditions, or multiple pitch classes might vie for centricity by simultaneously invoking different conditions. These latter situations frequently involve other analytic principles to be explored below; examples of each situation appear after the discussions of these principles.

10Ibid., 73–74. Allen Forte provides a similar list of factors that “may determine the value of a tone in relation to the other tones in a composition,” including octave doubling, successive repetition, recurrence over longer spans, duration, accent, volume, “order-position” (“Where does [the note] stand in a particular unit?”), timbre, and registral placement. Forte, Contemporary Tone-Structures, 17. It is not difficult to correlate most elements of Forte’s and Lerdahl’s lists, suggesting that a long-standing (if implicit) consensus exists regarding the ways in which structural pitch elements can be emphasized in post-tonal repertoire.

**Tonal Residue**

An important difference between the atonal music of the Second Viennese School (with which Lerdahl is primarily concerned in his generation of the salience conditions described in “Atonal Prolongational Structure”) and much of Copland’s music is the latter’s frequent allusion to certain tonality-defining techniques of common-practice era music. This claim is not meant to contradict previous assertions that the principles of voice-leading and harmonic progression characterizing this earlier repertoire are typically absent in Copland’s music. However, some of the vestiges of earlier compositional practice are prevalent in Copland’s output and must be considered in making analytic decisions regarding tonal structure.

Perhaps the most crucial component of this “tonal residue” in Copland’s music is the stable (i.e., major or minor) triad. While his harmonic language overall differs in obvious ways from those of common-practice-era composers, his work is still replete with triadic harmonies and arpeggations. Because these harmonies have perceptual salience as triads, they have consequences upon any analysis that places importance on pitch centricity. All other things being equal, a triad performed in isolation points to its own root as perceptually more important than its third or fifth, and in fact Copland frequently emphasizes particular pitches or pitch centers by presenting them as roots of triads. In Schenkerian theory (and the theories of Lerdahl and Jackendoff’s own *Generative Theory of Tonal Music*) triadic roots by definition exhibit greater stability than other members of the chord. The entrainment of the perception of that stability—in the minds of the composer, listener, and analyst—causes triadic roots to become that much more salient when they appear in music that lacks the other stability conditions of earlier music. The Eb-major chord that brings Webern’s Op. 7, No. 1, to a close is an exaggerated example of this phenomenon—the triad’s shocking appearance at the end of an otherwise highly chromatic and perceptually atonal piece serves only to bring further emphasis to the
chord’s identity as a triad. As a result Lerdahl is led to state that “[a]ny convincing analysis must address the striking ending” on this triad.\textsuperscript{12} Copland uses triads with much greater frequency than Webern, and their appearances are therefore much less marked. The presence of these chords nevertheless impacts the perception of the relative salience of pitches and pitch events in Copland’s works, and that impact must be similarly confronted in an analysis of this music.

A related perceptual holdover from the common-practice era is the tonality-defining feature of the perfect fourth and its inversion to a perfect fifth. It is certainly because of the ubiquitous dominant-to-tonic progression that, nearly a century after this progression lost its status as the \textit{sine qua non} of Western music, the higher note of a given perfect fourth still tends to be apprehended as a tonic pitch, ornamented by its “dominant.” In traditional tonal music, the isolated perfect fourth implies either a motion from dominant to tonic or an arpeggiation inside a single triad. In either case, the salience of this interval inevitably grants structural importance to its upper note. Schoenberg’s output of the 1910s is commonly cited as some of the earliest atonal music precisely because it so fastidiously avoids perceptually discrete perfect fourths and fifths. In contrast, when Copland’s Third Symphony opens with a slow descending fourth from E to B in a monophonic texture, the listener is irresistibly pulled to regard the E as a pitch center and B as its fifth.\textsuperscript{13} Because of the rich history surrounding this interval class’s structural importance in defining pitch centers, its appearance has inevitable consequences on post-tonal pitch-centric music as well.


\textsuperscript{13}In this example it is hypothetically \textit{possible} to regard the descent from E to B as a plagal-inspired motion that posits B as the pitch center. Nevertheless, without other musical evidence to support such an apprehension of this isolated interval, E is more likely to be perceived as the tonic.
It is worth mentioning here that Copland's music does contain some instances of pairs of major triads, performed in succession, whose roots are a perfect fourth apart. Such a situation not only combines the tonal-residual power of the triad with that of the perfect fourth, but also clearly evokes the authentic cadence, thereby granting a strong sense of centricity to the second chord’s root. The voice leading joining the chords in these cases is often not traditional. Additionally, Copland almost always includes other musical elements that make clear he is embedding this tonal-era convention into a modern aesthetic rather than imitating a previous practice. The example from the opening of his Sonata for Violin and Piano appearing later in this chapter illustrates this technique.

One other element of the common-practice era that Copland assimilated into his music is the major scale. The consequences of this component’s presence in the compositional mix are potentially different than those associated with triads and perfect fourths and fifths, however. Unlike the triad and interval class 5, the diatonic collection does not intrinsically and unambiguously grant a single pitch class salience or structural weight. In functional harmonic practice, the diatonic collection is a reflection of the pitch classes required for the expectations of linear and chordal progression as they relate to a given major tonality. Thus, a major scale performed in isolation needs little more than a sympathetic metrical context before it suggests some of those expectations, such as the tendency for \( \hat{7} \) to gravitate upward to \( \hat{1} \). On the other hand, a diatonic collection can be manipulated so that any of its members might be apprehended as a pitch center. By saliently emphasizing a member of the collection other than its traditional “tonic” (via one or more of the criteria already suggested above), a composer can cause the collection to be perceived modally, resulting in a pitch centricity unrelated to the collection’s potential identity as a major scale. Absent functional harmony, the white-note collection (for instance) can easily be made to point to D or G centricity in dorian or mixolydian
contexts respectively. This property of the diatonic collection was exploited by Debussy, Stravinsky, Ravel, and others long before Copland reached his compositional maturity.

Copland’s work makes common use of diatonic collections, and in light of their musical contexts those collections can frequently be reconciled as major scales; that is, the collection’s musical surroundings often provide additional salience to the pitch class also serving as the collection’s tonic scale degree. In such instances the music’s emphasis on a given pitch class reinforces that collection’s identity as a major scale, and any potential modal interpretations of the collection are rendered moot. It is important to bear in mind, though, that the diatonic collection does not carry with it into post-tonal music the other compositional practices that orient the collection around its typical tonic. External musical forces—such as those outlined as salience criteria above—must act on the collection for that pitch class to emerge as structurally superior to other pitch classes of the collection, and those forces can just as easily reinforce another member of the collection instead.

The elements of traditional tonal practice designated as tonal residue in this analytic method are those that are readily perceivable in Copland’s music. Authentic cadences, triads, melodic and harmonic perfect fifths, and the like immediately evoke a sense of pitch centricity because of their centuries-old use to place focus on particular pitch classes, and they therefore can serve a similar role when they appear in more recent music. A complete conception of common-practice-period tonality also gives attention to contrapuntal and harmonic features that govern deeper levels of the music’s structure—these features are the focus of Schenker’s theory. As noted above, however, Copland’s music does not retain these middleground features. For this reason, references to functional tonality in this analytic approach will tend to concentrate on elements of the music’s surface that are palpable, even as those elements contribute to a work’s overall contextually-defined tonal coherence.
Contextual Concerns

Lerdahl’s salience conditions and issues of tonal residue are both invoked in this methodology so as to privilege those elements of Copland’s pitch organization that are emphasized perceptually. The resulting analyses will therefore be contextually sensitive, since they will depend to the greatest extent upon those elements suggested as important by the pieces themselves, rather than on elements put forth by any pre-existing analytical paradigm.

The consideration of a given work in light of the perception-based criteria described above gives rise to piece-specific principles governing its tonal organization. On the other hand, it is also possible for these principles to come into play in ways that are not immediately salient. It stands to reason that such situations cannot be identified until the music has already been considered in terms of salience conditions and tonal residue. A close reading of the music in terms of perceptual issues leads to analytic constructs that are naturally based on those issues. Those constructs themselves might then be shown to apply in ways that are not discernible to a listener. One hypothetical example of this kind of analytic application might involve the correspondence of a series of important pitch centers to the individual notes of a significant motive. If a motive is repeated and emphasized, salience conditions may lead to the conclusion that it has importance. Such a conclusion begs the question, “Are there ways in which this crucial motive is reflected elsewhere in the music?” The paralleling of the notes of the motive in a series of pitch centers in the work would lend further structural value to the motive and further coherence to the piece. This correspondence, and others like it, play out over long temporal spans and may therefore not be directly perceptible. However, this correspondence still has analytical significance because the principle that first suggested it—the importance of that motive—was grounded in the motive’s value as a highly salient musical feature.
As this hypothetical example shows, such applications of context-suggested analytic principles become possible only after careful consideration of the music in terms of salience criteria, and in fact generally reinforce the structure already suggested by those criteria. This analytic approach is meant to allow the music to “speak for itself,” and such an orientation necessarily demands that phenomenally stressed elements of the music be given due consideration. Those elements may, once uncovered, point to a contextually-driven rationale for organizing tonal structure in a specific way, creating tonal alignment between the structure and the palpable features of the music’s surface.

**Small-Scale Examples of Analytic Methodology**

The following analytic examples, based on short passages from representative Copland works, will demonstrate the analytic issues invoked in this chapter. These samples will serve to illustrate some of the ways that the analytic principles described above might relate to a given passage. In some cases, these principles reinforce one another in emphasizing a certain pitch or pitch event, thus asserting with clarity its structural significance. At other times, these analytic principles are at odds with one another, resulting in an ambiguity that might, from a larger perspective, have ramifications for the tonal structure of the piece.

Example 2.7 appears near the end of the last movement of Copland’s Sonata for Violin and Piano (completed in 1943). This climactic passage clearly points to the importance of the pitch class G in several ways. The violin presents G in an extreme register and dynamic in the excerpt’s first two measures and goes on to present a melody
beginning with an octave leap between Gs, returning to G5 as its lowest point five more times. The piano’s topmost voice oscillates between G and B—G’s triadic major third. Reinforcing this emphasis on G is both instruments’ exclusive reliance on the one-sharp diatonic collection. This passage is emphatic in its assertion of G as a pitch center, and—given this passage’s climactic character and placement near the end of the entire sonata—as a structurally significant pitch in the context of the complete work.

**Molto allargando (Twice as slow)**

![Musical notation image]

An interesting feature of this G-centric music is its lack of reliance upon triads. The piano’s right hand considered in isolation features some G-major chords and open fifths on G, to be sure, but perceptually those chords are buried between the other
thundering piano pitches in the left hand and the violin melody that contradicts these triads as often as it complements them. There is no sense of traditional functional progression in this passage. The excerpt makes direct use of only one element of common-practice era syntax: the diatonic collection. It is the stress G receives via salience conditions that allows that collection to orient around that pitch center. Even so, Copland is able to end this passage with a sense of tonal openness that simulates a typical half cadence. The violin cycles repeatedly through a “B–G–A” motive and emphasizes it via augmentation in m. 216 before coming to rest on A5. This halt on the only note of the motive not part of the G major triad generates a palpable sense that the phrase is tonally incomplete and must continue. (A short coda centered on G in fact immediately follows.) The rhetoric surrounding the notion of “half cadence” is thus evoked without even the suggestion of dominant harmony.

Example 2.7 illustrates how Copland’s music can vigorously assert a pitch center via salience factors (register, volume, metrical placement, density, duration, placement near the end of the movement, etc.), thus suggesting that such a pitch center might be regarded as structurally significant. To paraphrase Lerdahl, any convincing analysis of this piece must address this ending on G centricity. It might thus be similarly fitting to consider how the sonata begins. Example 2.8 displays the initial measures of the first movement.

In contrast to example 2.7, these opening measures express an interesting tonal ambiguity. The piano’s right-hand part clearly presents oscillating A-major and D-major triads in mm. 1–6. The bass, however, underpins each D triad with an incongruous octave on G (and similarly colors the A chord of m. 5 with a D). The right hand’s A and D triads seem to point to D centricity, as their reference to the traditional dominant-tonic relationship is projected in its own discrete register. Meanwhile, the repeated returns in
the lowest register to long Gs at phrase endings (m. 3 and m. 6) lend salience to this pitch class.

Andante semplice (\(\text{\textit{d}} = 72\))

Example 2.8. Violin Sonata, I, mm. 1–20

The violin’s first three entrances comment on this ambiguity between D and G by stressing the roots and thirds of both these major triads and by starting and ending each phrase on the single common tone they share. As this passage unfolds, C\(_5\) and G\(_5\) are both employed, thus referencing both the one-sharp diatonic collection (suggesting the potential for G “major”) and the two-sharp collection (suggesting D “major”). This
collectional uncertainty thus reflects the music’s tonal ambiguity. Finally, the passage ends at m. 20 with a harmony that at once includes the root and third of G major and the root and fifth of D major. While it is possible to apprehend this sonority as a G-major triad with an added ninth, the G-versus-D context that permeates the rest of this opening passage in more salient ways points to the potential for regarding this chord as embodying instead that G/D duality. In fact, Copland confirms this potential in the last bars of the movement, which constitute a paraphrase of example 2.8. Example 2.9 shows that the last sonority of the movement corresponds closely in pitch content and register to the final chord of example 2.8; only the doubling of the lowest G an octave higher is omitted. Here, though, Copland uses the violin’s timbre and register to isolate the members of the D-major triad. While this harmony can still possibly be regarded as an altered G-major triad, this use of the violin places marked emphasis on D alongside its fifth, providing further confirmation of the G/D ambiguity pervading this music.

Example 2.9. Final chord of Violin Sonata, I

This brief encounter with the Violin Sonata demonstrates how the analytic principles outlined in this chapter interact, sometimes working in tandem to stress a single pitch class, sometimes stressing different pitch events simultaneously and thereby breeding uncertainties regarding the supremacy of one pitch class over another. In the work’s final climax shown in example 2.7, a large number of salience conditions point
simultaneously to the significance of a single pitch center, G, even while principles of
tonal residue are minimized in this section. In the work’s opening measures, by contrast,
the apprehension of triads in one register signaling D centricity is mitigated by the
simultaneous salient emphasis on G in an extreme low register. The context of G/D
ambiguity, woven by the interaction of these various analytic principles, supports the
assessment of the chords in m. 20 and at the end of the movement as reflections of that
ambiguity (rather than as simple G chords with added notes). The more-thorough
analysis of the whole sonata in chapter 5 builds on these observations, showing that the
G/D issue has consequences that are worked out through the rest of the work.

In considering the tonal ambiguity of the Violin Sonata’s opening, it becomes
possible to imagine a pitch event that, without itself defining a pitch center, has
consequences for the structure of the work. In the case of example 2.8, G and D
simultaneously vie for tonal supremacy via different conditions of salience and tonal
residue. In other instances, however, a pitch event can align itself with the work’s tonal
organization without projecting a specific tonality. Example 2.10, taken from the first
Allegro of Appalachian Spring (completed in 1944), displays such a circumstance.

The opening string/piano melody uses salience factors and triadic emphasis to
clearly present A as the pitch center in this excerpt. Measures 55–56, however, contain a
series of triads that would seem to momentarily contradict A’s supremacy. While the
triads are easily recognized as triads, their effervescent nature and the perceptual value of

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13 This survey of the main tonal issues of the Violin Sonata seems to square with Vincent
Persichetti’s impression of the work’s tonal flavor: “The effect of one triad harmony pulling against another
tightens the band of harmonic tension in such a way that its numerous releases into clear and pure places is
splashed with vividness.” Vincent Persichetti, “Modern Chamber Music in Philadelphia,” Modern Music 22,
no. 1 (1944): 47.

16 We have already seen that the third movement ends with unequivocal centricity on G. As it
happens, the intervening second movement lends weight to the other vying pitch class, D, in the context of
another interesting tonal ambiguity that parallels that of the first movement.
the final E-major triad as a “dominant” chord leading back to the A octaves of m. 58 keep them from seriously disrupting A as a pitch center.

**Ex. 2.10. Appalachian Spring, mm. 51–58**

The structural significance of this triadic series becomes apparent when it is subsequently expanded and altered later in the Allegro so that it leads in a specific way to the next significant pitch center, F, rather than landing on the current pitch center’s dominant. Example 2.11, taken from the end of the Allegro after the arrival on F, shows the series as it appears following a short A-centric flute melody.

**Ex. 2.11. Appalachian Spring, mm. 147–50**

The series as it is deployed here connects the previous pitch center, A, with the new one, F, via a pattern of descending half steps in chordal roots. It thus reflects the Allegro’s larger-level motion from one pitch center to another without itself putting forth a centric pitch.

The entire Allegro, including the development of this triadic series, is analyzed in detail in the next chapter. This analysis appears here only to demonstrate that a given
pitch event need not assert a pitch center to have significance in a work’s tonal organization. Considered in isolation, these series of inverted triads in themselves do little to establish a centric pitch class. Which triadic root might serve as a tonic—the highest or lowest, the first or last? Lerdahl’s salience conditions seem to work against one another in this case. These series require the tonal contexts supplied by their immediate surroundings in the music to create the perception of a pitch center. As the Allegro unfolds, however, the reappearances of and changes to the series reflect the section’s tonal organization by highlighting and dramatizing the progress of the music from one structurally important pitch center to another. It is in the context of those pitch centers that tonal processes like this one add to the work’s tonal coherence.

**Terminology**

Much terminology, potentially useful in discussion of various musics and analyses, has been appropriated to fill specific needs in prolongational analysis of common-practice-era tonal music. Terms such as interruption, middleground, and even structure have taken on such strong connotations from Schenkerian theory that one cannot use them in non-Schenkerian contexts without some concern for misinterpretation. This is unfortunate. Copland’s music certainly demonstrates, for instance, the need to describe the discontinuation of a goal-oriented tonal process—an interruption—without evoking the Schenkerian notion of halting an Urlinie’s descent over a dominant harmony. Similarly, post-tonal pitch centric musical analysis benefits from consideration of pitch centers and the connections between them; certainly the term structure is appropriate in this context if it can be divorced from its Schenkerian connotations.

In order to avoid such potential confusion, included here are brief but explicit descriptions of the ways in which certain terms, often associated with prolongational
theory, are intended in the context of this study. Broadly speaking, the more general etymology surrounding these words, divorced from the specific associations they bear in prolongational analysis, will underlie their intended meanings in the discussions that follow.

One of the more important concepts permeating this study is that of coherence. Implicit in this word is a sense of aesthetic consistency inasmuch as the constituent parts of a composition coalesce to create a logical whole. Tonal coherence, then, will refer broadly to the ways in which the pitch content of a composition exhibits a sense of completeness and internal consistency.

In the above analysis of the movement from Stravinsky’s Symphony of Psalms, a sense of tonal coherence is achieved through alignment of various melodic and harmonic elements with two significant pitch centers, E and G. The movement’s establishment of E centricity via its idiosyncratic E-minor triads is itself pregnant with the possibility for G also to take on a structural role. This possibility is dramatized through much of the movement as E’s upper neighbor, F, struggles and finally succeeds in defining melodic motion away from E to G just as G centricity is achieved and the movement closes. This coordination between E and G as structural pitch centers and these other musical considerations—the marked emphasis of G in the opening E triads and the efforts of F to pass melodically upward to G—creates a sense of internal logic that can be described as tonal coherence.17

The above examples from Copland’s Violin Sonata and Appalachian Spring suggest tonal coherence as well. The Violin Sonata’s opening ambiguity juxtaposing G and D as

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17 Tonal impetus, already defined in the previous chapter, describes the need for E to eventually progress to G in this example. The movement’s opening E-minor chord includes a strong focus on G, hinting at the latter pitch class’s potential significance for the movement. The final climax (shown in example 2.6) is, in a metaphorical sense, caused by the movement’s need to reflect this emphasis on G in the larger-scale tonal structure.
potential pitch centers is reflected not only in the entire sonata’s large-scale preoccupations with these two tonalities, but also in its emphases on other perfect-fifth related pitch centers. Appalachian Spring’s “Eden Valley,” framed by the structural pitch centers A and F, makes use of triadic series that eventually connect A with F via half-step motion as this section moves temporally further from A and closer to F. In each of these examples, the most important pitch centers and the “distance” between them are reflected and elaborated by specific elements of the music itself. That distance, as elaborated by the musical surface, might be intervalllic (as in the Violin Sonata’s obsession with the interval separating G and D, the perfect fifth) or temporal (as in the working out of the movement from A to F via half-step triadic chains in “Eden Valley”). Crucial to this conception of tonal coherence is a sense of association between pitch elements of the music’s surface and the significant pitch centers put forth by that music.

Implicit in this model of tonal coherence is the multi-leveled parsing of musical surfaces. The significance of a pitch center is determined using the analytic principles described in this chapter; e.g., a pitch center that is emphasized with less ambiguity, sustained for a longer period of time, accented via dynamics, registral placement, and triads, and reinforced in contextually meaningful ways will be regarded as having greater structural weight than one that is not. This use of the word structure does have some parallels with its use in Schenkerian theory. In both cases, structural pitch elements of greater significance are decorated, elaborated, or embellished by other pitch events. A crucial difference, though, is that the present analytic approach does not invoke the notion of prolongation. In accord with the arguments against prolongational analysis set forth by Straus (see the literature review in chapter 1), this study does not purport that certain pitch elements are “prolonged” by others, only that those pitch events with greater affinity for the analytic principles outlined above are connected and/or reflected by
other pitch events.\(^{18}\) Prolongation, in the contrasting sense of a given pitch element’s *continuation* by other events when it is no longer literally present, is not asserted in this methodology. Structural levels are defined, therefore, not by the subsuming of elements less structural by those more structural, but by comparing elements’ relative emphasis in the music via salience, tonal-residual, and other contextual criteria. In this sense it is also possible to speak of a work’s middleground, which would show the most structurally important pitch centers and the ways in which other, less structural pitch elements link and reflect those centers, creating a cohesive whole.

The next chapter presents in detail an analysis of “Eden Valley” from *Appalachian Spring*, incorporating the brief observations made about this music above into a complete perspective of this music’s tonal structure. The triadic series already described is only one of several discrete features of the music’s surface reflecting the larger-scale motion from A to F; considered together, they provide a clear model of Copland’s approach to tonal coherence in this music.

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\(^{18}\)It is worth noting that Schenkerian theory, as applied to traditionally tonal music, posits a *harmony* as the structural object being composed out—“prolonged”—by the musical surface. In the present methodology, the elements with the greatest structural weight are pitch *centers* rather than the specific harmonies representing them.
Chapter 3

*Appalachian Spring’s* First Allegro

**Overview**

The suite from Copland’s ballet *Appalachian Spring*, and especially the Allegro that immediately follows its introduction, is especially appropriate for the analytic method described in the previous chapter. By examining the discrete tonal techniques that parse the Allegro into smaller subsections in relation to its most strongly asserted tonalities, it becomes clear how this music creates a sense of tonal coherence that is unique to this composition.

This Allegro, which Copland called in his sketches “Eden Valley,” actually makes use of functional harmonic progressions in two passages. However, functional harmony constitutes only one of several tonal techniques employed in this section.\(^1\) The left side of example 3.1 shows that, including functional progressions, four contrasting harmonic vocabularies are juxtaposed in the Allegro (triadic T\(_{11}\) chains, quartal trichords, polychords, and functional progressions). The example also partitions the Allegro into twelve subsections. This division is based upon shifts between the tonal techniques labeled in the leftmost columns. Subsection boundaries are supported by other musical

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\(^1\) At the risk of overusing a few terms, I will reserve the designation *section* for larger formal units of the entire suite (such as the whole Allegro)—since these units are not separated during performance, it seems inappropriate to label them “movements.” The words *passage* and *subsection* are used (synonymously) to refer to the constituent parts of a section.
### Example 3.1. The subsections of the first Allegro from *Appalachian Spring*

<table>
<thead>
<tr>
<th>Subsection</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pandiatomic counterpoint</td>
<td>Melody derived from counterpoint.</td>
</tr>
<tr>
<td>Triadic chains</td>
<td>T₁₀/T₁₁ chain: A–G–F–E.</td>
</tr>
<tr>
<td>Quartal triads</td>
<td>Decorated polychord accompanies melody (C/F).</td>
</tr>
<tr>
<td>Functional progressions</td>
<td>Polychord accompanies melody (F/B♭).</td>
</tr>
<tr>
<td>Pitch centers</td>
<td>A, C (IV/I), A → A, F, F (IV/I)..., B♭ (I/V)?, F, F, (summary of A → F), F (IV/I), B♭.</td>
</tr>
</tbody>
</table>
parameters such as orchestration,\textsuperscript{2} dynamics, and silences or sustained chords separating the subsections. The discreteness of the tonal procedures outlined in example 3.1 is thus quite apparent (with the exception of a “pandiatonic exordium melody,” which is used in combination with each of the other techniques and thus constitutes a special case).\textsuperscript{3}

The fundamental tonal structure of the Allegro can be described as a movement from tonal centricity on A to centricity on F. This movement is multi-faceted. The different tonal techniques sometimes work in tandem, interacting by virtue of their blunt temporal juxtapositions with one another. Simultaneously, the first three tonal procedures listed each create a unique, individual narrative of the procession towards F, though the individual narratives frequently interrupt each other. The different musical approaches behave like excited, breathless children trying to tell a single story but continually interrupting each other while doing so. The listener hears multiple tellings of the same story—in this case, the “story of movement to F”—told by three different speakers with unique perspectives. The structure of the whole story, once completed, is unsurprisingly more complex because of the way in which it is presented.

The four subsection-defining tonal procedures are arranged in example 3.1 from a non-diatonic approach lacking a clear tonal focus (“triadic T\textsubscript{11} chains”) to diatonic

\textsuperscript{2}For purposes of simplicity, this analysis will deal exclusively with the orchestral version of \textit{Appalachian Spring}. The tonal structure is reinforced by the choices made by the composer in his orchestration of the original thirteen-instrument chamber version, but that tonal structure (which constitutes the main focus of this study) is not itself changed by the orchestration. Moreover, the orchestral suite is more widely performed and known than \textit{Appalachian Spring}’s manifestation as a ballet for chamber ensemble. The transcription (and abbreviation) of the original version does not necessarily negate the potential for the resulting concert work to exhibit a logical and compelling tonal structure.

\textsuperscript{3}The pitch centers indicated in example 3.1 and other similar formal tables throughout this study refer only to the centers themselves. While Copland’s music makes frequent use of diatonic collections that are often perceived as major scales, it does not necessarily follow that a given pitch center is always supported by the major scale of which it is the tonic. Music focused on A, for example, is often but not invariably based in a three-sharp diatonic collection. (Moreover, Copland’s music does not always adhere strictly to diatonic collections, as the analyses of subsequent chapters will illustrate.)
approaches suggesting a tonal center ("quartal trichords" and "polychords") to diatonic progressions clearly rooted in classical-era harmony ("functional progressions"). Moving downward through these four rows brings one to a technique that more strongly asserts a tonal center. The significance of this organization will become apparent when the interaction of these tonal procedures is considered. First, each procedure listed in example 3.1 will be examined individually. The transitional passage shown in example 3.1 will also be briefly considered. Because the pandiatonic exordium melody is presented in combination with each of the other techniques, it will be described first. A reduction of the entire Allegro is provided as example 3.2.
Example 3.2. “Eden Valley,” reduction (continues on next page)
Example 3.2 (continued). “Eden Valley,” reduction (continues on next page)
Example 3.2 (continued). “Eden Valley,” reduction (continues on next page)
Example 3.2 (continued). “Eden Valley,” reduction

The Pandiatonic Exordium Melody

The Allegro begins with a vigorous, diatonic melody that goes on to permeate the rest of the section. Example 3.1 identifies it as the “pandiatonic exordium melody,” given
its declamatory nature coupled with its placement at the opening of the section. The first three manifestations of this melody are presented in example 3.3.

Example 3.3. Three versions of the pandiatonic exordium melody

This melody projects a pitch center. In its first two versions, the pitch class A is emphasized by starting and ending there, and the other members of the major triad on A are also stressed via leaps in proximity to recurrences of A. The use of the three-sharp diatonic collection in these melodies also serves to reinforce this tonal center. The third version of the melody in example 3.3 is centered somewhat less emphatically on C, though its direct transposition of the first two measures from the previous version makes that tonal center clear. Of importance to this entire analysis is that this melody posits its tonic merely through salient emphasis on that pitch class; i.e., perception of its tonal center does not result from implied harmonic progressions in the same way that, say, an unaccompanied melody by Bach might imply a specific tonality. The use of functional progressions is monopolized by two crucial passages to be discussed below, and while this

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4 Melodic rhetorical theory has a long tradition dating at least to the eighteenth century. See Leonard Ratner, Classic Music: Expression, Form, and Style (New York: Schirmer, 1980), 91–107. The description of this melody as an “exordium” simply reflects my effort to provide it a meaningful designation based on its first appearance as a “call to attention” for the rest of the section.
melody appears in both of those passages, the melody itself does not imply a functional harmonic approach.

The role of this melody as a unifying feature of the Allegro should also be stressed. Example 3.1 shows that it appears in six of the section’s twelve subsections, and is thus at least indirectly involved in 75 of the section’s 103 measures. Because it is so frequently present in one shape or another, this melody never defines a sub-section itself; rather, it always appears in juxtaposition or superimposition with another tonal technique. This is illustrated in example 3.1 by the fact that mention of the exordium always appears in a column above another technique. In addition, similarities between this melody and the motives used in many of the other tonal procedures in the Allegro tend to further unify this section internally. The details of those motivic similarities will be explored below.

**Functional Progressions**

As illustrated in example 3.1, there appear in the Allegro only two passages that suggest functional, common-practice era harmony. The first occurs in mm. 80–97 and focuses on the pitch center A. The second, which is located near the end of the section (in mm. 136–46), constitutes a nearly complete reprise of the first but is centered on F. Each passage consists of a chorale texture presented in counterpoint with different versions of the exordium melody. A reduction of the first chorale, demonstrating its use of functional authentic cadence formulae, is given as example 3.4. The chorale is organized into four phrases, each of which culminates in a harmonic gesture resembling an authentic cadence in A major. Each phrase’s identity is reinforced by the sustaining of its final A-major triad for at least five beats. As shown in the reduction, functional analysis becomes possible as cadences approach in m. 82, m. 88, m. 92, and m. 96. Copland weakens the effect of the first three cadences by suppressing the expected melodic A at each cadence’s culmination;
the topmost voice instead leaps down a seventh to C# or down a fifth to E. Only as the subsection itself draws to a close does the melody finally come to rest on A in m. 96.

Example 3.4. Reduction of mm. 80–97

Another cadential moment takes place in the second phrase—the melody hovers at B for three beats, supported by all the members of the dominant (E major) triad. The C# in the bass, however, negates the cadential potential of the melody, which then soars to its apex (A5) before finishing the phrase in m. 88.

The F-major version of this passage (in mm. 136–46) exhibits harmonic content similar to that of mm. 80–97. Besides its different tonal center, the F-major chorale omits the penultimate phrase of example 3.4; a reduction of the F-major chorale would otherwise look very similar. The F-major music does differ in other ways from the A-major passage just discussed: the vigorous pandiatonic countermelody formerly sounded in octaves by upper strings and piano has been replaced by a less-athletic version presented by solo flute. The string section takes up the chorale (now marked piano) that was earlier sounded fortissimo by brass, flutes, and bassoons in the A major version. As a result of these changes, the F-major passage constitutes a softer, more intimate remembrance of the A-major passage while retaining a nearly unchanged harmonic structure.

These two chorales obviously could not be mistaken as settings by a classical-era composer. Prior to a cadence, each phrase is based in nonfunctional (though usually triadic) pandiatonicism. The angular voice leading, particularly in the melody at the
cadences prior to the end of each subsection, also betrays this music as evoking an earlier harmonic practice without actually embodying it. Nevertheless, these passages’ invocation of cadential formulae with such significant historic—and thus perceptual—antecedents marks them as the most emphatic assertions of a pitch center in “Eden Valley.” Nowhere else are cadential formulae with such rich historical context used to establish tonal centers.

These two passages’ assertions of unambiguous tonal centers via functional progressions, greater lengths, and placement near the beginning and end of the section all contribute to a view of them as the pillars defining the large-scale motion from A to F. These functional passages represent the tonal poles of the Allegro, while the movement between them is explored and elaborated by the other passages surrounding them. The simplest representation of this structure is given as the (admittedly vague) diagram in example 3.5. Consideration of the other tonal procedures in “Eden Valley” and their relationships to these tonal poles will allow us to describe its tonal structure with greater detail and with more elaborate versions of example 3.5.

![Diagram of A and F]

Example 3.5. Tonal structure of the Allegro in its most basic form

**Polychords**

The technique labeled “polychords” has a direct antecedent in the introductory section of *Appalachian Spring* immediately preceding this Allegro. Examining the original appearances of these polychords in the introduction will help to better contextualize their identity and usage in “Eden Valley.”

Following a slow unfolding of the A major triad, the introduction (in mm. 4–6) presents the simultaneity most famously associated with this composition: an E major
triad in second inversion stacked atop an A major triad in first inversion. It appears in
example 3.6 (with the A2 that appears below it in these measures). The same chord at the
same pitch level reappears in mm. 21–23 and mm. 30–33 (without the underpinning A2).

Example 3.6. The “Appalachian Spring Polychord”

There is no immediate reason that this chord need be considered a “polychord”
when it is first presented—it might just as easily be regarded as an extended tertian
sonority whose root is A (in effect, a major ninth chord). The two major triads that make
up this chord, shown with separate stems in example 3.6, are separated registrally but are
not especially distinct. The chord’s timbre is homogenous from top to bottom (it is set
entirely in strings), and it is arpeggiated in a slow, perceptually ametrical fashion that does
not distinguish its constituent triads. Nevertheless, by m. 11 Copland has begun to exploit
this simultaneity’s potential to be parsed as two major triads by distinguishing those triads
metrically and timbrally. Example 3.7 shows this music in full score.
Example 3.7. Measures 8–21
In mm. 11–12, the first horn arpeggiates a D major triad in first inversion, and is answered by a solo clarinet moving through an A major triad in second inversion with the same rhythm. These two chords, when stacked as a single simultaneity, form a transposition of the A major/E major polychord heard earlier. This polychord reappears in a linear fashion in mm. 25–29 and as a clear simultaneity in mm. 34–38, confirming its potential identity as a polychord. Example 3.8 shows both polychords side by side.

![Example 3.8](image)

A: I/V IV/I

Example 3.8. Two transpositionally-equivalent polychords

Given that A is the tonal center of this music (as established by the opening A-major triad, reiterated As in the lowest register, and reliance on the three-sharp diatonic collection), it becomes possible to generate labels based upon the positioning of each polychord’s constituent triads on specific scale degrees. The roman numerals in each label are arranged to reflect the registral ordering of triads from bottom to top. Thus, these transpositionally equivalent polychords can be distinguished in relationship to the prevalent tonality of the passage.

For much of the remainder of this introductory section, major triads rooted on A, E, and D are arpeggiated upward, overlapping to create a placid diatonic accompaniment to melodies in various solo instruments. Further, the pitches of these triads consistently reappear in the registers shown in example 3.8: D major in first inversion based on F♯3, A major in first or second inversions based on C♯4 or E4, and E major in second inversion based on B4. The stasis on these triads and registers continues to recall the two-triad polychords of example 3.8 that appeared earlier, though all three triads overlap in this seamless texture. Even so, each triad maintains something of its
identity by its organization into a short-short-long (quarter-quarter-half note) rhythmic motive. This is the duality prompting the label poly chord. The constituent triads are registrally and (beginning at m. 11) rhythmically discrete, yet at the same time they blur into one another in imitation of their very first presentation as represented in example 3.6. While in “Eden Valley” these chords are consistently presented in a horizontal, linearized fashion, their previous presentations in this introduction tend to encourage perceiving them as single, arpeggiated harmonies rather than oscillations between inverted major triads.

Example 3.1 shows that there are three passages in the Allegro hinging on polychords; specifically, each passage relies on other transpositional equivalents of the “Appalachian Spring Polychords” shown in example 3.8. Every polychord discussed in this chapter can be completely—if verbosely—described as “a pair of major triads with roots a perfect fifth apart, the lower of which appears in first inversion and the higher in second inversion.”

Looking first at the passage beginning in m. 112, we can see the polychord presented as an ostinato in clarinets and harp. Besides its replication of the registral arrangement of the introduction’s polychords, mm. 112–18 also recall the introduction’s polychords by imitating their upward arpeggations in short-short-long rhythmic patterns. As seen in the introduction, this polychord with triadic roots a fifth apart can be labeled as either I/V (positing B♭ as a tonal center) or IV/I (implying F as a tonal center). Which is the better choice at m. 112?

Persuasive evidence from the other elements of the passage can be found to support B♭ and F. While the exordium melody played by flutes and these measures’ strict adherence to the one-flat diatonic collection point to F, the trumpets and oboes in m. 115

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5 Of course, each triad also has an historical identity as a triad, which in this ordered, arpeggiated presentation lends further weight to perception of the discrete triads in each polychord—rather than an inverted major ninth or merely a pentachord subset of the diatonic scale.
introduce a figure emphasizing B♭ in two registers along with the other members of its major triad. It is perhaps most accurate to describe these seven bars as subtly shifting tonal focus from F to B♭. In this way the passage exploits the potential for tonal ambiguity inherent to this polychord.

Measures 66–73, which constitute the first polychordal music of the Allegro, are less tonally ambiguous. After toying with a rhythm and contour that suggest the polychord, this subsection employs a decorated version of it to again accompany the exordium melody. Because this earlier passage does not employ anything like the trumpet/oboe figure of mm. 115–18, it is easier to conclude—from the exordium melody and the diatonic collection used—that it is centered on C. The underlying F/C polychord, arpeggiated by violins beginning in m. 69, can therefore be labeled IV/I in C.

If the tonality of this passage is less ambiguous, the presentation of the polychord itself is somewhat hazy in this excerpt. The violins clearly arpeggiate it in its characteristic rhythm and contour, but its constituent triads are clouded by additional pitch classes in the lower strings. While the polychord’s registral placement above these incongruous pitches ensures that its unfolding from bottom to top is still clear, this addition to the polychord offers a contrasting perspective on its identity as a section-defining tonal technique. This more-obscure perspective is reinforced by the playful but uncertain reference to it in mm. 66–68 before the exordium melody’s entrance in m. 69.

The third (and only other) passage of the Allegro based on the polychord is a three-measure snippet that ends this section of Appalachian Spring (in mm. 152–54). By this point the large-scale shift to F major has been completed; this B♭/F polychord would therefore be understood as IV/I in F. The sonority also glides neatly into the Moderato section that begins in m. 155 by outlining B♭’s tonic and dominant triads. The tonal ambiguity of a polychord built from triads with roots separated by a perfect fifth makes it an ideal tool for “modulating” from one tonal center to another a perfect fifth away.
This last characteristic of the polychord has ramifications for the tonal design of the entire Allegro. Example 3.9 illustrates how the polychord passages, as a group, might be seen to contribute to the large-scale shift to F and then to B♭ at the Moderato’s opening.

Both F and B♭ (as unambiguous tonal centers) are preceded by a polychord that contains its own tonic and dominant triads. The B♭/F polychords of mm. 152–54 foreshadow the arrival on B♭ in m. 155. Similarly, the F/C polychord in mm. 66–73 presages the arrival on F in mm. 136–46. The two unequivocal declamations of A—the opening exordium melody and the A-major functional passage—are shown to be separated by the F/C polychord. The large-scale shift to F is thus prophesied even before A has been established as the first pillar of the Allegro. The B♭/F polychord at mm. 112–18 also participates in the movement towards the functional passage in F major (by containing an F major triad), but it additionally forecasts that B♭ will become the next strongly-asserted tonal center. After this polychord’s repetition in mm. 152–54, that forecast is confirmed in the Moderato’s opening.

The tonally ambiguous nature of the “Appalachian Spring Polychord” allows the passages that make use of it to reference specific tonalities without asserting them with the certainty of the functional-progression passages. In this way, the polychord subsections form a path that leads first to F and then B♭. The potential for such a path is confirmed
by the assertion of F as the second tonal pole of the Allegro and of B♯ as the opening
tonality of the *Moderato*. Neither polychords nor any of the other tonal techniques yet to
be explored establishes a tonal center with the stability and emphasis of the two passages
using functional progressions. In ways analogous to the polychord passages explored here,
the remaining tonal procedures each support the shift from A to F by providing their own
unique paths leading to F and by the specific arrangement of passages demonstrating
each technique as the Allegro proceeds.

**Quartal Trichords**

There are only two passages in “Eden Valley” that hinge upon the tonal
vocabulary designated “quartal trichords.” This label refers to pairs of trichords each
stacked in perfect fourths. Example 3.10 shows the only two versions of this musical
object used.

![Example 3.10. Quartal trichords](image)

As with the “Appalachian Spring Polychord,” this sonority is always presented in
this precise arrangement in pitch space—two pairs of stacked perfect fourths either
separated by a major third (as in mm. 103–11, with an extension to F5 that will be
described) or overlapping by a minor third (as in mm. 132–35). The trichords are always
presented in arpeggiation from bottom to top, and often in the short-short-long rhythmic
configuration (exemplified in m. 103) that typifies polychord passages as well. An
additional constraint placed upon the quartal trichords is that they never appear in
transposition during the Allegro (with the exception of octave transposition of the entire sonority): these are the only pitch classes on which this musical object is hung.

The first quartal-trichord passage begins in m. 103. Measure 104 rhythmically compresses the trichordal pair by turning B♭3 into an eighth note, and m. 105 subsequently extends the higher trichord upward an additional fourth to land at F5. This landing emphasizes F’s potential as a tonic pitch class, as does this section’s use of the one-flat diatonic collection. Moreover, the extension to F5 allows this passage to embed a new quartal trichord (G–C–F) that will come to have its own identity as a discrete trichord in mm. 132–35. The last measure of the passage (m. 111) restates the melodic extension to F5, while the intervening measures, mm. 107–10, contain another version of the exordium melody also emphasizing F.

The other quartal-trichord passage, mm. 132–35, is an abbreviated variation of the first organized to lend even more weight to F. This entire passage is identical to mm. 103–106 in terms of rhythm and contour. However, every bar in mm. 132–35 ends on an accented F. This subtle change creates an even sharper focus on F than was exhibited in mm. 103–06, and thus heralds the F-major functional passage that immediately follows at m. 136.

Unlike the passages based on the “Appalachian Spring Polychord,” these two quartal passages are nearly equivalent in terms of their pitch-class content. The second seems to emphasize F more strenuously; this fact is perhaps the only way to speak of the quartal trichords “leading” to the structural arrival on F major in mm. 136–46. As example 3.1 illustrates, the first quartal-trichord subsection represents the first time F can be posited as a tonal center in the section. Nevertheless, this passage cannot provide the same structural weight to F that the repeated authentic cadences of the later functional-harmony passage do. In fact, the second quartal trichord passage more strongly asserts F’s importance than the first; in this way it anticipates the F major functional passage that immediately follows it. While the content of the two subsections using quartal trichords
do not generate in themselves an especially dynamic path to F (owing to their relatively static treatment), their temporal placement among other passages using other tonal procedures is significant and helps to highlight the progress towards F as the second tonal pillar of the Allegro. Example 3.11, a more elaborated version of examples 3.5 and 3.9, shows the role these two passages play in supporting this progress via arrows pointing to the manifestation of F that they forecast.

Example 3.11. Large-scale tonal motion with quartal trichords considered

**Triadic T_{11} Chains**

The only tonal technique in the Allegro that is not based on a diatonic collection also provides the most intricate path from A to F. Perhaps the best way to discuss this path is to consider it in its entirety first, even though the only time it is made explicit in the music is after the large-scale movement to F has been completed. The presentation of the whole path takes place in mm. 147–51. As the strings continue to sustain the F-major triad that was the culmination of that functional subsection, the flute reminisces on A major with the exordium melody for the last time. Following in mm. 149–50 is a series of second-inversion triads presented in the now-familiar short-short-long rhythmic pattern. Consider the abbreviated notation of example 3.12.
Example 3.12. Completed T₁₁ chain (from mm. 149–50)

If A (represented by the flute melody and its open-fifth accompaniment) is regarded as a starting point, the four inverted triads represent a complete chain of T₁₁ transformations (i.e., transpositions of chordal roots in pitch space up eleven half steps) ending at F. Measures 147–50 thus constitute another manifestation of the Allegro’s movement from A to F. Here at the end of the section, the T₁₁ chain reconfirms the arrival on F; appropriately, whenever T₁₁ chains are invoked before the structural F-major arrival of mm. 136–46, they are unable to complete the march to F successfully. We will see that the chains’ attempts to reach F become more and more dramatic as the section progresses, creating a tonal impetus for the section’s climax in mm. 129–31.

The first subsection of “Eden Valley” consists of two statements of the pandiatonic exordium in A separated by similar triadic chains. Beginning in m. 55, woodwind instruments take turns arpeggiating second-inversion major triads in ascending registral order. As example 3.13 shows, however, these triads do not form a chain of strict T₁₁ transformations. The G triad is followed by an F triad, creating a T₁₀ transformation that skips the theoretical G♯ triad of this chain and lands at F “too early.” Because of this hiccup, the last triad turns out to be not F but E major, which neatly leads back to the starting point—A—by behaving perceptually like a dominant chord. This initial presentation of the tonal procedure thus actually reasserts A rather than leading to F. This makes sense given this passage’s location at the Allegro’s beginning.
The next $T_{11}$-based subsection, mm. 98–102, appears just after the A-major functional passage and begins to provide evidence that F might be the chain’s goal. It begins with a one-measure fragment of the exordium melody in much the same way that the concluding $T_{11}$ passage begins. As illustrated in example 3.14, in both passages a solo flute presents part of the exordium melody in a new tonality as the previous passage’s last authentic cadence fades away.

In mm. 147–48, after the structural arrival on F has been attained, the flute makes use of the exordium melody to reminisce on A, which was the first structural tonality of the Allegro. In contrast, at m. 98 the flute melody, which seems centered on C#, can be reconciled as a dominant to the ensuing F# triad that begins a new $T_{11}$ chain. The
symmetry between m. 98 and mm. 147–48 complements the polarity of the functional passages in A and F. Measure 98 constitutes a tonal preparation of the $T_{11}$ chain that immediately follows—thus continuing the search for a “path to F”—while mm. 147–48 recall the section’s beginnings in A.

Example 3.15 shows the rest of the second $T_{11}$ passage in condensed form (following the flute solo of m. 98). The music moves from $F\#$ (the triad missing from the previous $T_{11}$ passage) to $F$, dawdles on $F$ for a moment, and then continues through one more application of $T_{11}$ to land again at $E$. While $E$ is not resolved as a dominant this time (the first quartal trichord passage immediately follows), its presence indicates that it is not yet time to settle on $F$. This passage’s end suggests an uneasy balance between A, to which we cannot return, and $F$, which we are not yet ready to confirm.

The climactic passage in mm. 119–31 heightens the anticipation of $F$’s structural arrival by presenting $T_{11}$-based chains that attempt again and again to reach $F$ by starting from $A\flat$ (the first “$T_{11}$ step” away from A). Example 3.16 illustrates this series of attempts. The dotted bar lines in this example correspond to the restarts of the $T_{11}$ chains; measure numbers are provided to aid in relating this example to the score in example 3.2.
The chains beginning at m. 119 and m. 121 share the same “imperfection” found in the first T_{11} chain (from mm. 55–58, see example 3.13): in each case the T_{11} chain is interrupted by T_{10} after the G triad, and as a result these series overshoot F to E (which has previously represented A as its dominant). Measures 121–22 are a repetition of mm. 119–20 in regards to pitch, but not rhythm. Each triad of the chain starting at m. 121 has been altered from the short-short-long rhythmic motive to “short-short-short,” causing the underlying (and notated) meter to change from simple to compound. Moreover, the truncation of this characteristic rhythmic pattern increases the music’s sense of urgency.

Beginning at m. 123 Copland creates a sense of excited anticipation by applying an additive process to the T_{11} chain. This T_{11} process starts over in m. 123 on Ab, gets only as far as G, then begins again in m. 124. This time the cycle reaches F via the same T_{10} intrusion after G, and actually makes a dying reference to A. The first sound of m.
125 is an open fifth on A, generated by the T₁₁ chain’s hesitation on A (which it approaches through an F-major triad) in concomitance with a melodic pause above on E.⁶ The T₁₁ chains then begin anew at A♭ twice more, skipping G♭ both times to arrive first at E and then extending the cycle one step further to a piercing E♭ in m. 128. Each of the last three “near”-T₁₁ cycles, having reached F by means of their T₁₀ blemishes, rockets past F and soars progressively further into tonal and registral space. This climactic passage becomes more and more frenetic as it tries madly to achieve an arrival on F from A through an unblemished T₁₁ chain.

Finally, at m. 129 the music climaxes by showing how A can be connected to F via a perfect T₁₁ chain. In order to accomplish this with the greatest possible intensity, the T₁₁ process actually gets a running start by starting with a C triad. As the root motion moves down, the series explicitly includes the A triad (for the first time in any T₁₁ chain), and continues through it to F♯—the last stop before arriving at F. This stop at F♯ is appropriate given its location in the Allegro: the structural arrival of F via functional progressions is just about to take place, heralded (in the measure immediately following this F♯ triad) by the emphatic quartal trichords already discussed.

The perception of F♯ in m. 131 as penultimate is prepared by a specific metrical context created by the T₁₀ in the last triadic chain. Each of the triads in this chain spans three eighth-note durations. (Recall that in mm. 121–22 we saw how this truncation took place while preserving the metrical identity of each discrete triad.) If we take the perceptual step of grouping these triads into pairs to form 6/8 “measures,” they then

⁶The stepwise melodic line, not shown in example 3.16, moves more or less in consonance with the underlying triads of the T₁₁ chains. The details of its rhythmic interaction with the triads (while mostly tangential to the aims of this study) would form the basis of an interesting metrical analysis. For our purposes it is enough to note the brief emphasis it places on A by pausing on the perfect fifth above it in m. 125.
constitute a string of alternating strong and weak beats, as shown in example 3.17.

Example 3.17. Rebaring of mm. 129–31

Because the C triad was followed by $T_{10}$ (to $Bb$) rather than $T_{11}$ (to $B$), the unbroken chain of $T_{11}$s starting at $A$ can place the $F\#$ triad in a metrically weak position.\(^7\) $F\#$'s function as the penultimate chord in this chain leading to $F$ is reinforced by its metrical context as an upbeat—we now have metrical and tonal reasons to expect the $F$ triad. This climactic moment is reinforced by the loudest, most thickly-orchestrated passage in the entire Allegro. That Copland immediately follows this upbeat not with the expected $F$ triad but with a quarter rest and then a quartal-trichord passage emphasizing $F$ only heightens the excitement surrounding this moment.\(^8\)

It seems appropriate that, after $F$ is firmly established via the $F$-major functional passage, the entire unbroken $T_{11}$ chain from $A$ to $F$ would be restated in mm. 147–51, for it was so difficult to achieve. While the $T_{11}$ chain does not itself project a tonal center, that lack of implicit tonal focus helps it to provide the most dynamic and intricate path

\(^7\)It is worth noting that $C$ serves as a catalyst in two of the tonal procedures described. Not only does it give rise to the unbroken $T_{11}$ chain from $A$ to $F$, but it also constituted the trailhead for the path to $F$ implied by the passages of polychords. *Appalachian Spring* ends with an extended coda in $C$ major, suggesting that this tonality/triad would play an important role in an analysis of the entire work. This issue will be addressed in greater detail in the last section of this analysis.

\(^8\)For a detailed metrical analysis of this passage see Peninah Kanovsky, “Metric Hierarchy in Music by Bartók, Copland and Stravinsky” (Ph.D. diss., City University of New York, 2002), 68–77.
between the section’s tonal pillars. Example 3.18 summarizes how the four $T_{11}$ passages point to the tonal centers of the other subsections in the Allegro.

![Diagram of tonal motion and polychords]

Example 3.18. Large-scale tonal motion with $T_{11}$ cycles considered

**Motivic Links and a Transitional Passage**

Example 3.19 displays the motivic connections between the various tonal techniques, thus illustrating that these varied compositional devices have other commonalities in addition to their shared reflections of the larger-scale motion from $A$ to $F$. The rows of example 3.19 are arranged to coordinate with the order in which the devices of the leftmost column appear in *Appalachian Spring*. Some of these connections have already been noted.
<table>
<thead>
<tr>
<th></th>
<th>Inverted Triad</th>
<th>Upward Arpeggiation</th>
<th>Ascending P4s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polychord</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Exordium Melody</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>T₁₁ Chains</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Transition Motive</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Functional Melody</td>
<td></td>
<td>X</td>
<td>(augmented)</td>
</tr>
<tr>
<td>Quartal Trichord</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Example 3.19. Motivic connections

The polychord is prior to all other devices because it appears in the section that precedes “Eden Valley.” The exordium melody, the T₁₁-based passages, and the quartal trichord passages all derive their short-short-long rhythmic gestures from the polychord. Additionally, the T₁₁ and quartal subsections’ upward arpeggiation of their characteristic harmonies is inspired by that of the polychord, and the second-inversion triads used in the T₁₁ chains themselves can be considered as derived from the upper triad of the polychord. The opening melodic gesture of each phrase in both functional-progression passages is in fact a quartal trichord. (This motivic parallelism was emphasized in example 3.4 with beams connecting the ascending E–A–D in each phrase.) Finally, example 3.19 shows a “transition motive” which is derived from a combination of the polychord and the quartal trichord. This motive is used to generate the only passage of “Eden Valley” not yet discussed: mm. 74–79.

This passage uses the motive of example 3.20 at five different pitch levels, the first of which is shown. The example also displays this motive’s kinship to other motivic material of the Allegro via its embedding of an inverted triad (from the polychord) and a
quartal trichord.

\[
\begin{array}{c|c|c|c}
& & \\
\hline
& & \\
\hline
& & \\
\end{array}
\]

Example 3.20. Transition motive used in mm. 74–79

This transitional passage serves to return to A from the F/C polychord that precedes it. Its repeating use of this motive at various pitch levels suggests a modulating sequence, though the intervallic distance between the repetitions is not consistent: the five statements of the motive begin on D, G, E, A, and E. The exact transpositions of the motive in this order, however, do create a smooth transition to the three-sharp diatonic collection, thus paving the way for the A-major functional passage that immediately follows.

“Eden Valley” and Its Connections with the Coda

Example 3.18 shows what might be construed as the “middleground” of this Allegro. It illustrates that the fundamental tonal centers of the section are A and F, represented by the two passages employing functional harmonic progressions that emphasize those major keys. Divergent tonal techniques are woven around those two pivotal subsections to create a complex web of tonal associations elaborating the shift from A to F. The placement of specific polychordal passages foreshadows the move to F (and, after the Allegro, to B♭). Meanwhile, the two quartal trichord passages alert us to the increasing importance of F as the section progresses. Finally, the passages based on T_{11} chains comment on the large-scale tonal shift by first thwarting F in favor of E (the dominant of A) and then by creating the section’s climax in repeated attempts to progress to an F triad. The final T_{11} passage reflects on the shift from A to F by presenting the
entire chain. Any one of these techniques can be seen to reflect the motion from A to F. As suggested at the beginning of this analysis, the juxtaposition of these tonal processes makes that motion more elaborate and complex.

Can the tonal centers and procedures of the Allegro be related to other parts of the work? Following its oft-cited variations on the Shaker tune “‘Tis the Gift to Be Simple,” Appalachian Spring closes with a quiet coda centered on C. In fact, the last three variations on the tune are in C, and the coda—beginning at m. 619 with the marking “like a prayer”—continues this emphasis on C for over sixty broad measures. The coda additionally recalls materials and techniques first exposed in the introduction and in “Eden Valley.” The work’s final melody is that of the functional-progression passages from “Eden Valley,” and the last sonority is a slow upward arpeggiation of the “Appalachian Spring Polychord,” this time manifested as I/V in C. If the Allegro itself can be construed as a movement from centricity on A to centricity on F, then it may also be possible to describe the large-scale tonal structure of the entire work as movement from A centricity to C centricity. The recapitulation of the functional-progression music, the “Appalachian Spring Polychord,” and the placement of this music at the very end of the work all suggest the possible relevance of linking the coda’s pitch center with those explored in the piece’s opening sections.

Example 3.21 shows approximately the first half of the coda, and is annotated to highlight the triads that serve as cadential goals of each phrase. The coda opens with a homophonic texture, implying a hymn or chorale in four phrases, before restating the functional-progression music from “Eden Valley” beginning in m. 654. Thanks to the climatic emphasis on C just before this passage begins, and the repeated melodic descents to $3$ supported by C triads beginning at m. 619, centricity on C is unequivocal—the appearances of $B\flat$, $E\flat$, $A\flat$, and occasionally $D\flat$ thus suggest a sort of modal mixture between C “major” and C “minor.”
Example 3.21. Coda, mm. 619–55

The first and second phrases of the chorale, set forth by muted strings, are nearly identical save for their final chords. The first phrase ends with an F-major triad in mm. 626–27, while the second phrase culminates in a delicately rearticulated A-major triad in mm. 635–36. The ultimate chords of each phrase are striking: they are each prepared by
a “dominant” triad in C and thus serve as substitutes for an expected C triad. The third phrase contrasts with the first two in its orchestration—the strings are replaced by a woodwind choir—and in melodic/harmonic content, but the phrase also comes to a cadence on an F-major triad. The fourth phrase, in which the strings and woodwinds join forces to generate a thicker texture, creates a sense of closure by allowing the “dominant” G triad to finally progress to C at m. 652. This last phrase is otherwise identical to the second, and thereby confirms the perception that the ultimate chords of the first two phrases were substitutes for C.9

In light of the significance of A and F as pitch centers in the introduction and “Eden Valley,” it is remarkable that this closing chorale comes to rest on F triads twice and an A triad once even as it winds its way to a landing on C. When limiting the analytic scope to a single section of Appalachian Spring we saw that the Allegro’s second tonal pole, F, was anticipated well before its structural arrival. After that arrival, the first tonal pole, A, was recalled (see example 3.14). This examination of the coda illustrates a parallel treatment of important pitch centers across the span of the entire work. As noted in the analysis of “Eden Valley,” C serves an important catalytic role in two of that section’s tonal procedures. First, it constitutes the trailhead for the path to F implied by the polychordal passages—the first such passage in mm. 66–73 is in fact centered on C and contains a IV/I polychord that eventually points the way to F, as discussed above. In addition, C serves as the “slingshot” that finally gives rise to the climactic, unbroken T11 chain from A to F (mm. 129–31, illustrated in example 3.16). In these two ways, the potential importance of C to the tonal progress of Appalachian Spring is forecasted in the tonal procedures of the opening Allegro. In the coda, the reverse holds: C centricity now

9The design of the functional passages in the Allegro also foreshadows this four-phrase design of the coda’s chorale. Comparison of mm. 80–97 with mm. 619–93 shows that in both cases the potential for a strong arrival on a tonic chord is thwarted three times (via melodic motion away from ^1 or cadencing on an unexpected harmony) before being fulfilled at the respective passages’ ends.
reigns, but cadential moments subverting C in momentary favor of A and F triads stand as reminders of the two significant tonalities that governed the opening sections of this work.

By considering portions of Appalachian Spring on their own terms, investigating the tonal procedures specific to this piece, it becomes possible to develop an analysis highlighting the ways in which this work organizes itself around specific pitch centers and elaborates the movement between them. This music coheres tonally by means of the connections between important structural tonalities (A and F in “Eden Valley”; C in the coda) and a body of tonal techniques employed at the music’s surface. Subsequent analyses of other Copland works show that each composition utilizes different musical parameters and tonal procedures to create consistencies between a work’s most significant pitch centers and its other elements. The analysis of the Third Symphony’s finale in the next chapter, for instance, hinges upon a method of classifying shifts between pitch centers that is suggested by the music itself to create a sense of tonal coherence.
Chapter 4
The Fourth Movement of the Third Symphony

The Introduction’s Derivation from Fanfare for the Common Man

Copland’s Third Symphony was completed in 1946 just in time for its premiere by the Boston Symphony Orchestra, directed by the composer’s friend and advocate Serge Koussevitzky. In addition to its status as the largest-scale symphonic work of Copland’s career, the symphony is of additional interest to the present study in the way that its fourth movement appropriates an earlier Copland composition in its entirety. The 1942 Fanfare for the Common Man, originally a brief work for brass and percussion, is famously arranged for full orchestra to become the introductory portion of the Third Symphony’s finale. The theme from this fanfare subsequently reappears throughout the rest of the movement.

The significance of the Fanfare’s rearrangement rests in the changes wrought to its tonal structure as it is inserted into the symphony. This music, which in its original form remained focused on a single pitch center until its final few measures, is altered in the symphony so as to move through no fewer than five pitch centers before concluding and giving way to the rest of the finale. That Copland decided to make such changes as he integrated the Fanfare into the finale would seem to suggest that they have significance for the rest of the movement. Such a clear example of the composer’s tonal alteration of previously-composed music as it is inserted into a new work provides a unique analytical opportunity. What is it about these new tonal shifts that makes the fanfare music and the rest of the movement more congruous with one another? What do these shifts in the fanfare music have in common? In what ways might they reflect the two dozen additional
changes in pitch centricity that characterize the rest of the finale? How do all these shifts work to achieve a sense of tonal coherence?

This chapter seeks to address these questions by beginning with a close examination of the new tonal shifts introduced into the fanfare music. These shifts suggest a specific mode of classifying nearly all the changes in centricity throughout the movement. In the following analysis, this classification scheme will be shown to closely relate to specific thematic materials, and the shifts associated with them, throughout the finale. Finally, an association of one type of tonal shift with a significant theme and other musical parameters generates a large-scale motivic parallelism that recalls the opening melody of the Fanfare. Once the rather complex web of associations between themes and tonal shifts is explored, the chapter concludes with consideration of the movement’s formal design and its relationship to its tonal organization as well as Copland’s own description of the finale as a “modified sonata form.”

Before continuing, it is worth noting that the analysis of this chapter is derived from the “revised 1966” score of the Third Symphony. The main distinction between this version of the work and Copland’s original conception lies in a cut of eight measures from the finale. This cut was originally introduced by Leonard Bernstein in 1948 without Copland’s advance knowledge; Copland was at first offended by this change but later came to agree with Bernstein “and several others about the advisability of shortening the ending.”¹ This cut was adopted alongside several other minor revisions for the 1966 republication of the score, which today is the basis for virtually all performances and recordings of this work.² While the removal of this music has no significant impact on the

¹Copland and Perlis, Copland since 1943, 71.

²Curiously, Pollack claims that “Copland agreed to omit [these] eight measures of the coda for the work’s 1947 publication” (emphasis added). This does not appear to be possible since, as Pollack notes in the same paragraph (and is confirmed in Copland’s autobiography), Bernstein did not suggest the cut until 1948. Pollack, Aaron Copland: The Life and Work of an Uncommon Man, 417; Copland and Perlis, Copland since 1943, 71. The relative obscurity of the original 1947 edition of the score is exacerbated by Boosey &
tonal structure of the movement, the omission of the thematic restatement contained in this passage has some consequences for the work’s overall formal design. This difference will be noted as it applies in the analysis that follows.

**Fanfare for the Common Man**

**and its Fusion into the Third Symphony**

*Fanfare for the Common Man* remains centered on B♭ until its very end, where a shift to D major takes place. This passage is shown in example 4.1.

Example 4.1. *Fanfare for the Common Man*, mm. 41–46 (conclusion, brass only shown)

The only other chromaticism in the entirety of the *Fanfare* is the appearance of A♭ in mm. 31–35, shown in example 4.2. At first, A♭ is reconciled as a modal coloring of the B♭ tonality, which is confirmed when the first phrase of this example culminates with a B♭ triad. The second phrase, beginning with the anacrusis to m. 33, is somewhat more ambiguous tonally: the A♭ that opens this phrase’s melody is bolstered by the brass’s

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Hawkes’s failure to include dates of publications on some editions and printings (some later impressions bear the date 1947 but include the 1948 cut, while some miniature scores bear no date at all), such that one cannot always be certain which edition is which. Nevertheless, the Cook Music Library of Indiana University–Bloomington does hold a copy of what appears to be the original 1947 printing—it includes the missing eight measures and, less significantly, offers some slightly different tempo indications throughout the work. The differences between the 1947 and 1966 printings of the symphony are well-documented in Elizabeth Bergman Grist, “Aaron Copland’s Third Symphony from Sketch to Score,” *Journal of Musicology* 18, no. 3 (2001): 377–405.
cadence on E♭ (for the altering of A♭ to A♭ is the only change needed to turn a B♭ diatonic collection into an E♭ diatonic collection). This arrival on E♭, however, is also immediately preceded by a melodic A♭, and the timpani remain firmly rooted on the dominant and tonic notes of B♭.

![Example 4.2. Fanfare for the Common Man, mm. 31–35 (with anacrusis)](image)

The replacement of B♭ as a pitch center by another a perfect fifth away is tentative at best. In fact, the next phrase, beginning at m. 35, immediately turns back to B♭. This emphasis on a potential pitch center a perfect fifth away from B♭ might thus be described as “shadowing.” A similar instance of “perfect-fifth shadowing” is implicit in the timpani’s tuning throughout the *Fanfare*. From the first measure, the timpani repeatedly sound the harmonic fourth F2/B♭2 (see example 4.3).

![Example 4.3. Fanfare for the Common Man, m. 1](image)

This interval unambiguously points to B♭ as a tonal center, but the registral placement of F below B♭ in this harmonic interval hints at a potential instability. Copland’s
selection of this tuning (and not the equally plausible B♭/F) lends extra emphasis to F, thus again demonstrating the “shadowing” of B♭ by another pitch class related by interval class 5 (i.e. 5). This shadowing of a pitch center by another a fifth away (above or below) proves crucial to this analysis of the Third Symphony’s last movement.

The last movement of the Third Symphony begins with a statement of the Fanfare. The music of nearly the entire original Fanfare is presented, albeit with several changes. For instance, the movement begins with a pianissimo statement of the fanfare theme by the woodwinds, helping to smooth the attacca transition from the previous movement. At R85 the timpani and bass drum are reinforced with harps and low strings that were unavailable in the Fanfare’s original setting for brass and percussion. But the most striking changes made to the Fanfare as it is fused into this symphonic movement’s opening have to do with tonal orientation.

Were the tonal treatment of the fanfare material at the onset of the fourth movement similar to that of the original Fanfare, we might expect that the Fanfare’s tonal motion from B♭ to D would be simply transposed to fit the segue offered by the A♭ chord at the end of the symphony’s third movement. The result of such a direct transcription would be the transposition of the fanfare’s tonal movement: the move from B♭ to D (in the original) would now become A♭ to C. But this is not what happens—when the fanfare material ends just before R88, it does so with a cadence on D major. This symphonic version of the fanfare thus ends at the same pitch-class level as the original, even though the symphonic version begins a major second lower.

Copland has, in fact, inserted several tonal shifts into the fanfare’s reworking, the net result of which is its ending on D. Example 4.4 shows the various pitch centers visited between the beginning of the fourth movement and the conclusion of the fanfare.³

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³Crist provides the first published analysis to make mention of these tonal changes in the fanfare introduction to the Third Symphony. Her analysis, supporting her perspective of the movement as “a drama of reconciliation and cooperation” in reflection of postwar American society, appears in Elizabeth
Example 4.4. Pitch centers of the fanfare introduction to the Third Symphony’s fourth movement

The first two tonal shifts are accomplished not through the addition of any transitional material, but by simply ending a phrase in one tonality and beginning the next in another. Example 4.5 shows the beginning of this movement and these two shifts.

Example 4.5. Third Symphony, IV, beginning to R86 + 1

This excerpt provides a characteristic sample of the changes made to the Fanfare’s tonal makeup as it is placed in the Third Symphony. As previously suggested, there would appear at first glance no compositional reason that Copland could not have simply followed the Fanfare’s original tonal scheme, thus ending at R88 by emphasizing C rather than D. Indeed, the rest of the fourth movement could similarly have been written a major second lower to accommodate the fanfare’s original tonal plan. By introducing these tonal changes into the fanfare when adapting it for the Third Symphony, Copland has seemingly provided an analytic seam by which we might further investigate the structure of the entire movement. Do the tonal shifts of this introduction share anything in common (besides their suddenness)? Do the types of tonal shifts introduced by this fanfare have significance for the rest of the movement? How do the many changes in centricity throughout the finale relate to the overall tonal structure and formal design? The analysis that follows takes up these issues in turn.

**A Classification Scheme for Tonal Shifts**

Copland’s addition of tonal changes to the fanfare introduction suggests that they may hold significance for the rest of the movement. With that premise, this analysis begins with a method for classifying shifts between pairs of major scales along with their associated tonics. The qualities that characterize particular types of shifts are in fact emphasized by the musical surface. Different thematic materials are directly associated with specific types of shifts. Finally, understanding the role of these classifications alongside other musical parameters allows for the tracing of a series of pitch centers that forms a motivic parallelism with the opening notes of the fanfare melody.

The fanfare’s tonal plan, as it appears as the introduction of the fourth movement of the symphony, moves from A♭ to D via the series of tonal shifts shown in example 4.4. Each pitch center explored in the fanfare is emphasized with its associated diatonic
collection (i.e., the major scale of which it is the first scale degree). In fact, diatonic collections are crucial to the assertion of nearly every tonality explored in the entire movement. As we shall see, the rapid and frequent changes in collection and tonality lend to much of the movement a sense of episodic restlessness. The changes in pitch center added to the fanfare opening predict this restlessness.

The pitch centers of the fanfare introduction shift either up a major third (Ab to C and B♭ to D; the latter shift is preserved from the original Fanfare) or down a minor second (C to B and B♭ to B♭). In traditional terms, these two types of “modulations” are not commonly associated with one another—as are, for instance, that subset of modulations linking tonalities related by chromatic third. On the other hand, considering the roles of certain common tones in these tonal shifts, stressed in the fanfare music itself, allows the positing of commonalities between them.

Consider the first change of pitch center in the symphonic fanfare from Ab to C at R85, shown in example 4.5. The diatonic collections representing these tonalities, related by T₄ (i.e., ascending major third or descending minor sixth), contain three pitch classes in common: C, F, and G. This is illustrated in example 4.6.

![Example 4.6. Common tones shared by the Ab and C major scales](image)

It is significant that the only pitch classes the diatonic C music draws from the preceding diatonic Ab music are ¹, ⁴, and ⁵ in C. These scale degrees are heavily stressed in the music of the fanfare. Example 4.5 shows that the fanfare’s opening melody places great emphasis on ¹, ⁴, and ⁵; further, ⁵ acts as a recurring pedal from R85 to R86, and the subdominant and tonic triads are arpeggiated frequently (and sometimes simultaneously).
I have already suggested that the shadowing of a pitch center by other pitch
classes a perfect fifth or fourth away plays a role in the fanfare. That notion is reinforced
by the melody itself, its harmonization, and here by a change in tonality and diatonic
collection that privileges the new pitch center alongside its “shadows” by preserving them
exclusively as common tones. I will refer hereafter to a given tonality’s first, fourth, and
fifth scale degrees collectively as that tonality’s “fifth-complex.” Given this movement’s
rapid shifts between pitch centers, and those centers’ consistent presentation as tonics of
major scales, it seems appropriate to consider how the music’s surface transforms one
major scale into the next in light of those transformations’ treatment of fifth-complexes.

Those transformations are represented by the eleven possible transpositions of a
given major scale into another. Aside from T₄, the only other transposition of the major
scale that allows for preservation of at least some members of the new tonality’s fifth-
complex to the exclusion of any other common tones is T₁₁ (i.e., transposition up a major
seventh or down a half step). In other words: given a major scale “X,” there are only two
other major scales whose fifth-complexes share members with X and that share no other
common tones with X.⁴ Those two other major scales start a major third above and a
minor second below X.

Example 4.7 illustrates. The leftmost column shows the fifth-complex of a
hypothetical X (C major). The remaining columns show each of the eleven possible
transpositions of X. (The transpositions’ groupings and labels in the top row will be

---

⁴Copland in fact alters the opening of the finale’s introduction in a way that reinforces the salience
of the new fifth-complex at the first tonal shift of the movement. The composer selects the second phrase
group of the original Fanfare to begin the symphonic setting. (Compare the opening of the fourth movement,
in example 4.5, with mm. 13–21 of the original Fanfare.) This phrase group, once transposed to the A₉
major scale, includes melodically the pitch classes C and G—two of the common tones preserved at the
R85 tonal shift. Neither would have appeared in the melody’s initial measures if the composer had simply
transposed the first phrase from the original Fanfare to begin the finale. Copland’s selection of a different
phrase group from the Fanfare to begin the symphony’s finale reinforces the very common tones essential to
the classification scheme presented here.
explained later.) Below each potential transposition (hereafter “Y”) there appears the number of members of Y’s fifth-complex present in X, the number of members of X’s fifth complex present in Y, the total number of common tones shared by X and Y, and the number of pitch classes that are members of both scales’ fifth-complexes.

<table>
<thead>
<tr>
<th>X \n</th>
<th>---</th>
</tr>
</thead>
<tbody>
<tr>
<td>(\uparrow 1 \uparrow)</td>
<td>(\uparrow 4 \uparrow 5)</td>
</tr>
<tr>
<td>(C)</td>
<td>(D)</td>
</tr>
<tr>
<td>(T_2)</td>
<td>(T_3)</td>
</tr>
<tr>
<td>members of Y’s fifth-complex in X</td>
<td>3</td>
</tr>
<tr>
<td>members of X’s fifth-complex in Y</td>
<td>1</td>
</tr>
<tr>
<td>common tones shared by X and Y</td>
<td>5</td>
</tr>
<tr>
<td>pitch classes in both X’s and Y’s fifth-complexes</td>
<td>1</td>
</tr>
</tbody>
</table>

Example 4.7. Common tones shared by a given major scale (“X”) and its eleven transpositions

The table shows that, of eleven possible transpositions of a given X, eight will bear common tones with X in their fifth-complexes. Besides \(T_4\) (which was already discussed in terms of its appearance as \(A^\#\)-to-C in the fanfare introduction), only \(T_{11}\) bears such common tones in its fifth-complex exclusively, even though \(T_{11}\) preserves only two such common tones. (Another way to express this is to say that the number of common tones shared by X with Y’s fifth complex equals the number of common tones shared by X with Y only when Y is related to X by \(T_4\) or \(T_{11}\).) In the context of this fanfare’s (and the whole movement’s) diatonic, centric music that exhibits shadowing of pitch centers by their
dominant and subdominant pitch classes, it is significant that at each of the introduction’s tonal shifts the new fifth-complex is prepared via common tones by the previous diatonic collection. Transforming a major scale by $T_4$ or $T_{11}$, as in the introduction, constitutes the strongest possible emphasis on common-tone preparation of the new fifth-complex’s pitch classes.

Example 4.7 generalizes into four types of relationships the eleven possible transformations of a given X into another major scale. For each of these relationships, it is important to conceptualize the major scale “X” appearing earlier than the major scale “Y.” (In this analysis, the designation X will always refer to a musical entity appearing before another entity designated Y.) The relationships, EMERGE, SUBSUME, EXCHANGE, and ISOLATE, are formalized below.\(^5\)

**EMERGE.** Given two non-identical major scales X and Y, the EMERGE relationship holds if the tonic pitch class of Y is present in X and the tonic pitch class of X is not present in Y. If X is C major, EMERGE obtains only when Y is D, E, A, or B major.

**SUBSUME.** Given two non-identical major scales X and Y, the SUBSUME relationship holds if the tonic pitch class of X is present in Y and the tonic pitch class of Y is not present in X. If X is C major, SUBSUME obtains only when Y is D♭, E♭, A♭, or B♭ major.

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\(^5\)By using the term *tonic* in relation to these tonal shifts, I mean to imply that these categories apply exclusively to shifts between diatonic collections presented musically such that the pitch center of each collection leads to the collection's being conceived as a major scale. *Tonic* is a term often used to describe this pitch center put forth by a major scale, and I use it synonymously with “scale degree 1” throughout this discussion. The advantage to *tonic* over *pitch center* in my definitions of these transformational categories is that the term *tonic*, with its suggestion of the diatonic collection’s organization as a major scale, pushes against the possibility of these collections being organized modally around some other member as a center—a possibility that doesn't obtain in these transformations or (for the most part) the music of the Third Symphony's finale.
**EXCHANGE.** Given two non-identical major scales X and Y, the EXCHANGE relationship holds if the tonic pitch class of X is present in Y and the tonic pitch class of Y is present in X. If X is C major, EXCHANGE obtains only when Y is F or G major. (This can also be stated in terms of X’s fifth-complex: EXCHANGE holds that the tonic pitch class of Y is a member of X’s fifth-complex.)

**ISOLATE.** Finally, given two non-identical major scales X and Y, the ISOLATE relationship holds if neither scale’s tonic pitch class is contained in the other scale: the tonic pitch class of X is absent from Y and the tonic pitch class of Y is absent from X. ISOLATE obtains only when the tonic pitch classes of X and Y are related by T6 (C and F♯ major, for example).

These four categories thus catalog transpositional relationships among diatonic scales—and the pitch centers most typically associated with them—strictly in terms of the presence or absence of tonic scale degrees in one another’s collections. Crucial to our purposes, however, is that the other members of a pitch center’s fifth-complex tend to get “carried along” with the tonic pitch class in this scheme. In EMERGE, for instance, X tends to include other members of Y’s fifth-complex—in addition to Y’s tonic—via common tones when moving from X to Y. As example 4.7 shows, in each EMERGE transformation two or three members of the new scale’s fifth-complex also appear in the previous scale, while no more than one member of the old fifth-complex continues in the new scale. One can therefore characterize this category via the “emergence” of the new fifth-complex’s members from the previous music’s major scale. SUBSUME-related scales tend to the contrary: in SUBSUME three of the four possible Ys introduce fifth-complexes that are completely foreign to X, but they carry forward two or three pitch classes of X’s fifth-complex elsewhere in Y’s collection—X’s fifth-complex is “subsumed”
in Y.\(^6\) EXCHANGE shares fifth-complex members from both scales liberally, while ISOLATE represses such common tones. By cataloguing potential X-to-Y transformations according to the preservation of tonic notes across the X/Y boundary we can thus generalize also about the relative preservation of fifth-complexes across that boundary.\(^7\)

Example 4.7 shows that this categorizing of moves from one major scale to another captures the ways in which members of both scales' fifth-complexes are preserved or insulated from the other scale. The relevance of this classification system is already suggested in the introduction to this movement: T\(_4\) and T\(_{11}\), the only shifts explored in the fanfare introduction, are instances of EMERGE. The common tones that emerge from each previous diatonic collection form most or all of the new fifth-complex in every case, and the pitch classes of that fifth-complex are emphasized strongly in the fanfare music itself.

The significance of this classification system to the rest of the Third Symphony’s finale is explored below. As we consider the formal organization of the movement and the pitch centers it explores, patterns exploiting these transformation types emerge, creating

\(^6\)The EMERGE-related scales each have a SUBSUME-related “mirror”: compare each EMERGE column in example 4.7 with its mod-12-related complement in the SUBSUME column (T2 with T10, T4 with T8, and so on). The properties of EMERGE/SUBSUME “mirrors” allow them to “undo” each other: each EMERGE shift can be followed by a particular SUBSUME shift that will return us to the original pitch center and diatonic collection. This property is in fact exploited in the music following the introductory fanfare, as this analysis will show.

\(^7\)Visualization of these transformations on a circle of fifths may help the reader to conceptualize the four categories of shifts: from any given X, one move clockwise or counterclockwise exhausts all possible EXCHANGE relationships, moving two to five stations clockwise or counterclockwise constitutes the EMERGE and SUBSUME relationships respectively, and a move of six stations manifests the ISOLATE relationship. On the other hand, the shifts of the fanfare introduction that originally suggested this classification scheme do not reflect this spatial representation. The T\(_{18}\) and T\(_{138}\) of the fanfare music do not strike this listener as moves “clockwise between two and five stations” around a circle of fifths. Of interest, rather, is the shifts’ retention of members of the saliently projected fifth-complexes over the boundary from one collection to the next. While the four categories can be mapped onto a circle of fifths, doing so dilutes the original conception of these transformations as suggested in the music itself.
interesting counterpoint between the movement’s tonal structure and formal design. SUBSUME and EMERGE shifts, which demonstrate contrary treatment of fifth-complexes, each appear in conjunction with specific thematic material. EXCHANGE, on the other hand, preserves common tones in fifth-complexes to the greatest extent, and appears in connection with every theme identified in this analysis. ISOLATE minimizes such common tones, and its only two manifestations in the movement create a tonal incongruity that is addressed as the finale closes. The distinctions among the four relationships are significant because of the ways this music uses them in tandem with thematic and other formal elements, and because the relationships are themselves suggested by the treatment of the most salient scale degrees in the introduction’s tonal shifts.

**Formal Overview**

The theoretical groundwork laid above proceeds directly from observations about the ways in which the fanfare introduction asserts and moves between pitch centers and diatonic collections. The analysis below uses this framework to shed light upon the tonal structure of the remainder of the fourth movement. As in the introduction, pitch centricity throughout the movement changes frequently and is nearly always posited by a major scale associated with each pitch center. Transitions between tonalities are rare: diatonic collections (and the pitch centers that allow for their perception as major scales)

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8 Every diatonic collection has the potential to be apprehended modally; i.e., given enough emphasis by other musical parameters any member of the collection (with the possible exception of the member suggesting the lycorian mode) can theoretically serve as a perceived pitch center. However, in this movement modality is not an issue. With a few exceptions that will be noted, every pitch center is established through diatonic collections and emphasis on a pitch class that demands interpreting the collection as a major scale.
simply supplant one another as the music progresses through time. In these ways, at least, the remainder of the movement reflects the tonal organization of its fanfare introduction. Example 4.8 provides a complete view of this finale’s thematic events and pitch centers. Its end emphasizes D, paralleling the D centricity of the fanfare’s conclusion just before R88 and thus framing the rest of the movement.9 The composer described this movement as “closest to a sonata-allegro form, although the recapitulation is replaced by an extended coda, presenting many ideas from the work, including the opening theme.”10 In fact, the music beginning at R88 starts by introducing two related themes, labeled “toccata” and “rumba,” which are then developed throughout most of the rest of the movement. One other contrasting theme, the “hymn,” is introduced much later at R105, and the fanfare theme also makes several appearances.11 Copland’s “coda” might begin at R121, which marks the first reappearance of the first movement’s opening theme. On the other hand, a greater sense of arrival and culmination—typically associated with symphonic codas—is achieved a little later at R124. This arrival will be discussed in greater detail in the following analysis, where it will become clear that this form’s tonal structure creates its own sense of culmination at R124.

Example 4.8 also shows the types of relationships between adjacent pitch centers (and their associated major scales) throughout the movement. The remaining sections of this chapter take up the correspondences between different major-scale transformations and specific thematic events. Specifically, this analysis explores: (1) the correlation between SUBSUME shifts and the toccata theme, which constitutes the main scaffolding

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9 Bernstein’s cut takes place just before R129. The original version of the finale included eight additional measures at this point conflating the toccata and fanfare themes in D.

10 Copland and Perlis, Copland since 1943, 68.

11 These terms are used simply to help differentiate the themes in the following discussion, and are derived from the character they typically display in the movement. They are suggested by Pollack, following an unpublished paper by William Austin. Pollack, Aaron Copland: The Life and Work of an Uncommon Man, 415.
of the movement’s tonal structure; (2) that structure’s alignment with elements of the music’s surface via motivic parallelisms; (3) the correlation between EMERGE shifts and the rumba theme and its consequences for the progress of the movement’s tonal structure; (4) the interruptive nature of a passage joined to its surroundings by ISOLATE shifts, and the reconciliation of that interruptive music in the coda; and (5) the transcendent qualities of the hymn theme and the translation of that transcendence into a lack of correspondence with any specific type of major-scale transformation. Finally, consideration of thematic and other musical parameters will clarify the tonal structure of this movement and its interaction with the music’s formal design.
### Fanfare (introduction)

<table>
<thead>
<tr>
<th>(beginning)</th>
<th>R85</th>
<th>R86</th>
<th>R87</th>
<th>R88 –1</th>
</tr>
</thead>
<tbody>
<tr>
<td>fanfare</td>
<td>fanfare</td>
<td>fanfare</td>
<td>fanfare</td>
<td>fanfare</td>
</tr>
<tr>
<td>A♭</td>
<td>E♭</td>
<td>C</td>
<td>B</td>
<td>B♭</td>
</tr>
<tr>
<td></td>
<td>E♭</td>
<td></td>
<td></td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>(T₁)</td>
<td>(T₁)</td>
<td>(T₄)</td>
<td>(T₄)</td>
</tr>
</tbody>
</table>

### Exposition of toccata and rumba

<table>
<thead>
<tr>
<th>R88</th>
<th>R89</th>
<th>R90</th>
<th>R90 + 6</th>
<th>R91</th>
<th>R91 + 8</th>
<th>R92</th>
<th>R93</th>
<th>R94</th>
<th>R95</th>
<th>R96</th>
<th>R98</th>
<th>R99</th>
<th>R101</th>
<th>R103</th>
<th>R105</th>
<th>R107</th>
<th>R109</th>
</tr>
</thead>
<tbody>
<tr>
<td>fanfare</td>
<td>toccata</td>
<td>rumba</td>
<td>toccata developed</td>
<td>toccata (bridge)</td>
<td>rumba motive</td>
<td>rumba sequenced</td>
<td>toccata</td>
<td>toccata (bridge)</td>
<td>toccata (climactic)</td>
<td>fanfare</td>
<td>fanfare (gentle)</td>
<td>hymn</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>E♭</td>
<td>C</td>
<td>E♭</td>
<td>D♭</td>
<td>D</td>
<td>A</td>
<td>B</td>
<td>E</td>
<td>A</td>
<td>Bließ</td>
<td>F</td>
<td>B♭</td>
<td>G</td>
<td>D</td>
<td>E♭</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>E♭</td>
<td>(T₂)</td>
<td>E♭</td>
<td>(T₃)</td>
<td>SUB (T₅)</td>
<td>SUB (T₁₀)</td>
<td>SUB (T₁)</td>
<td>EXC (T₅)</td>
<td>E♭</td>
<td>EXC (T₅)</td>
<td>SUB (T₁)</td>
<td>ISO (T₆)</td>
<td>ISO (T₆)</td>
<td>E♭</td>
<td>(T₂)</td>
<td>SUB (T₁)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Transition

<table>
<thead>
<tr>
<th>R110</th>
<th>R112</th>
<th>R114</th>
<th>R114 + 9</th>
<th>R117</th>
<th>R118</th>
<th>R119 + 2</th>
<th>R120 + 4</th>
<th>R121</th>
<th>R124</th>
<th>R125</th>
<th>R126</th>
<th>R127</th>
<th>R129</th>
</tr>
</thead>
<tbody>
<tr>
<td>based on hymn?</td>
<td>rumba in imitation</td>
<td>rumba with augmentation</td>
<td>“crash,” toccata emerges</td>
<td>toccata</td>
<td>toccata/fanfare</td>
<td>toccata’s scales/fanfare</td>
<td>fanfare/scales, mvmt. I theme</td>
<td>hymn, mvmt. I theme</td>
<td>fanfare, hymn</td>
<td>fanfare (military, minor)</td>
<td>E♭</td>
<td>G♭</td>
<td>D♭</td>
</tr>
<tr>
<td>(ambiguous)</td>
<td>F</td>
<td>D</td>
<td>E</td>
<td>C♯/D♭</td>
<td>D♭</td>
<td>G♭</td>
<td>D♭</td>
<td>G</td>
<td>D♭</td>
<td>B♭</td>
<td>D</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>E♭</td>
<td>(T₂)</td>
<td>E♭</td>
<td>(T₉)</td>
<td>EXC (T₅)</td>
<td>SUB (T₁)</td>
<td>EXC (T₇)</td>
<td>E♭</td>
<td>(T₉)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*EME = EMERGE, SUB = SUBSUME, EXC = EXCHANGE, ISO = ISOLATE*

Example 4.8. Thematic Events and Pitch Centers in the Finale of the Third Symphony
The Toccata Theme and SUBSUME

The Toccata in R88 to R93

Example 4.9 displays the first presentation of the toccata theme, which immediately follows the fanfare introduction.

Example 4.9. R88 to R90, reduction

The music between R88 and R89 might be described as the afterglow of the fanfare introduction, as motives from the fanfare are quietly restated below the toccata
theme. The toccata theme continues the fanfare’s characteristic assertion of pitch
centricity via a major scale while emphasizing non-tonic notes of the fifth-complex. The
theme in solo oboe, labeled “toccata 1” in example 4.9, hovers incessantly around A as 5
of the prevailing D major, and continues to do so when the tempo doubles at R89. Here
the oboe is answered by a solo clarinet, which presents a related melody (“toccata 2”) that
embellishes first 1 and then 6 while arpeggiating a G major triad. Toccata 2 thus lends
some weight to the remaining pitch class of the fifth-complex, G.

Finally, I have also labeled a “toccata 3” gesture in example 4.9 near R90. This
thematic snippet also sometimes appears in conjunction with toccata 1 and toccata 2, but
it is noteworthy in addition because it continues the fifth-complex focus. At R90 the
music’s pitch center shifts for the first time since the fanfare introduction. Toccata 3
implies the change of diatonic collection by introducing D#, suggesting a B major triad in
so doing, and then lands directly on E in two registers including the highest thus far since
the movement’s introduction.12 Yet even as E is asserted as a pitch center for the first time
in the first beat of R90, it is “fifth-shadowed”: the first notes of this measure suggest not
an E major triad but A major, thus emphasizing E’s subdominant. Because of the quasi-
authentic-cadence gesture that characterizes toccata 3, E’s centricity is not questioned but
is shaded by its 4.

In some respects it is problematic to label a toccata “theme” in this movement.
The melodies just labeled as toccatas 1 and 2 reappear frequently, but are often
fragmented, juxtaposed against other potentially thematic material competing for
attention, and as they progress they are usually liquidated into athematic, pandiatonic

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12Identifying the beginning of toccata 3 is difficult. Here, as in its later appearances, it emerges
from athematic sixteenth-note lines to create its cadential implications, and the precise intervallic content of
the last few notes before its downbeat arrival on 1 varies. (Compare R92 + 2 in example 4.11 and R93 + 2
in example 4.12.) Locating an exact starting point for this motive’s appearances is not essential to its
palpability or to this analysis.
passagework. Even as these phrases appear at R89 they quickly dissolve into the busy contrapuntal texture leading to R90. However, many other statements of the toccata theme later in the movement sharpen the focus on this motivic material, helping to distinguish it from the non-thematic counterpoint that often accompanies or follows it.

Example 4.8 shows that, beginning at R91, the toccata theme is used to move rapidly through four pitch centers. These centers—C, Eb, D#, and D—constitute a chain of SUBSUME shifts. In the context of this whole movement, SUBSUME is in fact most closely associated with the toccata theme. The first of these shifts, C to Eb, is shown in example 4.10.

Example 4.10. R91 to R91 + 8 (toccata using SUBSUME)

R91 begins by clearly asserting C. As the five-part texture emerges one voice at a time, however, that tonality is contradicted by the entrances in R91 + 6. These imitative entrances by violas and celli introduce pitch content that can be reconciled to only one diatonic collection: the Eb major scale. Centricity on Eb is confirmed shortly thereafter in
R91 + 8 (the first bar after the notated key signature change\textsuperscript{13}) as violins and horns converge on that pitch in extreme registers via scalar runs. The two measures before the Eb convergence can be regarded as an overlap between C and Eb, for the C-centric toccata music in violins and horns continues at the same pitch level even as the viola and cello entrances, forecasting Eb, appear below.

The characteristic feature of SUBSUME relationships—the carrying forward of X’s (in this case, C’s) fifth-complex in Y’s (Eb’s) diatonic collection—is emphasized by the two-measure overlap between these tonalities. While these measures (R91 + 6 and R91 + 7) perceptually suggest an overlap because the lower string entrances disrupt the C diatony, the pitch content of these bars is in fact entirely diatonic to the Eb major scale. The violins and horns in these two measures rely on the notes of C’s fifth-complex almost exclusively, and those three pitch classes (C, F, and G) are all members of the Eb diatonic collection. C, F, and G are thus “subsumed” in the three-flat collection that follows. This overlap thus suggests the potential significance of distinguishing shifts between diatonic collections based on those shifts’ treatment of the associated fifth-complexes. Cataloging such shifts according to their treatment of fifth-complexes is exactly the goal of the classification system put forth above.

Two more SUBSUME shifts follow on the heels of the move to Eb, as shown in example 4.11. The new pitch centers, Db and D, are indicated in the example.

\textsuperscript{13}The four-flat key signature, which holds until R93, does not directly reflect the diatonic collections of the pitch centers discussed in this passage. The signature might be regarded as a sort of “accidental average” in that only one flat need be added or removed to arrive at the diatonic collections associated with this passage’s tonalities (first Eb, and later Db)—and in fact this is how the signature is treated. It is a notational convenience rather than an indicator of the pitch centers perceived.
The $D_b$ music beginning around R92 represents one of the few instances in the movement wherein a pitch center is not presented as the tonic of a major scale. The $C_b$ necessary to the $D_b$ major scale is for a time supplanted by $C_b$, creating with the rest of the pitch content from R92 to R92 + 5 a complete six-flat collection. $C_b$ is finally taken up in place of $C_b$ at R92 + 6. Nevertheless, centricity on $G_b$ (suggested by the six-flat collection) does not obtain. A great many $D_b$s in these measures are approached by large upward leaps (often from other members of the $D_b$ major triad), stressed by their relative
lengths, and marked with accents. Moreover, the rapid pace of sixteenth notes and the intensely contrapuntal treatment create an impression of pandiatonic fluttering from which accented D♭s repeatedly emerge. We might say that this D♭ music demonstrates yet another example of fifth-shadowing—here D♭ is shadowed by its subdominant G♭.14

Centricity on D is weakly established by the appearance of the D-major diatonic collection just before R93. That appearance again echoes toccata 3 at R93 + 2 as shown in example 4.12. The cadential arrival at R94 also tends to reinforce D. The D major triad is embedded in the chord at R94’s downbeat, by which point the melody of this “bridge” passage has moved inexorably up a D major scale to land at A, the dominant note of D.

Example 4.12. R93 to R94

14The only material that specifically points to G♭ as a potential pitch center is a reference to toccata 3, the first instance of which starts in R92 + 2 (labeled in example 4.11). Toccata 3’s pitch-class level suggests G♭, but it is immediately followed by a stressed D♭.
As shown in example 4.8 and the discussion above, by R93 the toccata has established a firm correlation with SUBSUME. The toccata is first introduced as a primary theme for the movement by virtue of its emphasis at R89. Focus on this theme returns at R91 as the music shifts rapidly through three pitch centers (C, E♭, and D♭) and returns to D at R93. (The intervening “rumba” music at R90 is a subject of a later section in this chapter.) Each of these shifts—T₃ (C to E♭), T₁₀ (E♭ to D♭), and T₁ (D♭ to D)—is an instance of SUBSUME. Throughout the rest of the movement this correspondence of toccata material with SUBSUME shifts continues.

Many of the pitch centers explored thus far in association with the toccata appear and disappear quite rapidly. Example 4.10 above shows that there are only six measures of unambiguous C-centric music at R91, while example 4.11 illustrates that there are only four bars of E♭-centric music (after the two-measure overlap with C starting at R91 + 6) and ten bars of D♭-centric music before R93. A crucial exception to this trend is the affiliation of the pitch center D with the toccata. The toccata is introduced in D for thirteen measures beginning at R88, and the first five measures at R88 are performed at a quite slow tempo. D is again asserted (with the toccata) beginning at R93 for an additional fourteen measures. Moreover, D is the tonal culmination of the fanfare introduction, and should therefore receive great weight in an analysis of this movement.

Because D receives greater stress as a pitch center, example 4.8 displays D in a heavier typeface than the other pitch centers explored up to R93. Example 4.8 also shows other pitch centers that are similarly emphasized with a heavier typeface. This analysis will illuminate a basic tonal thread running through the movement by privileging certain pitch centers. These centers are associated with the toccata theme, are linked with a SUBSUME tonal shift, and that are retained as pitch centers for a relatively long period of time. The pitch centers involved in this tonal thread appear in bold face in example 4.8; their appearances will be examined below to demonstrate how they meet these criteria for being considered part of the fundamental tonal structure in this movement.
The Toccata in R96 to R99

Following D, the next pitch center to receive such an extended treatment is E at R96 + 1. This passage dawdles on E for sixteen measures while continuing the contrapuntal development of the toccata theme before coming to an end at R98. Example 4.13 shows this music as well as the SUBSUME shift from E to F that comes just after R98.

At R98 another bridge passage recalling that of R93 + 4 appears (compare example 4.13 with example 4.12). In contrast to the otherwise analogous passage at R93 + 4, which stays true to D-major diatony, the music of R98 wrenches the pitch center from E to F. The four-sharp collection is summarily replaced by the one-flat collection by R98 + 2, and the topmost voices create a rollicking stepwise ascent from $\hat{5}$ to $\hat{5}$ (C5 to C6 in the reduction) in F. The *sforzando* sonority on the downbeat of R99 marking the end of this ascent thus stresses C as $\hat{5}$ of F, bringing the new fifth-complex to the fore. Simultaneously, this downbeat includes the two members of the previous fifth-complex (E and A$^{15}$) that are diatonic to the new one-flat collection. This SUBSUME shift from E to F thereby again emphasizes the importance of fifth-complexes to tonal shifts in this movement, for it is the preservation of X's (in this case, E's) fifth-complex in Y's (F's) diatonic collection even as Y's fifth-complex asserts itself that typifies SUBSUME relationships.

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$^{15}$In fact, A is emphasized as E's fifth-shadow in the imitative counterpoint beginning at R96 + 2 (see the first system of example 4.13). The low-register accompaniment starting at R97 – 4 also stresses A alongside its “leading tone.”
Immediately following this arrival on 5 at R99 is a climactic unison statement of the toccata theme in strings. Toccata 1 and toccata 2 are presented in succession for the first time since the Allegro’s opening. The brass’s chords, which interject whenever the toccata hesitates for longer than a quarter-beat, add to the massive emphasis on F and its associated diatonic collection. Some of the music following R99 is presented in example 4.13; in fact this F music continues for a total of twenty-two measures past R99.

This shift from E to F just after R98, the assertion of the toccata in conjunction with these pitch centers, and the relative emphasis these pitch centers receive all help to place them alongside D as significant markers in this movement’s tonal design. The SUBSUME shift from E to F (T1) is most closely associated with the toccata theme, as have been all earlier instances of SUBSUME. The music beginning at R98, where the shift takes place, is immediately preceded and followed by toccata music. Further, the octave-long approach to 5 culminating at R99 reflects the decoration of 5 that characterizes toccata 1. SUBSUME thus continues to be affiliated with the toccata theme. In addition, E and F linger as points of tonal/collectional stability among the rapid changes of pitch center thus far in the movement (by R99 centricity has changed ten times since the Allegro’s onset). E and F thus continue a series of structural pitch centers that began with D and, if considered in pitch space, ascends by step to E and then F.

The Toccata in R118 to R122

This series of structural tonalities is continued by the last SUBSUME shift of the movement,\footnote{The only SUBSUME relationship shown in example 4.8 that is not addressed in this section of the analysis appears at R109. This T1 shift from D to E♭ is affiliated not with the toccata but with the hymn theme, and thus constitutes a special case that will be considered below.} which takes place at R121 and is shown in example 4.14.
Example 4.14. R118 to R122 (continues on next page)
This transformation, a $T_1$ move from centricity on $G_b$ to centricity on $G$, is remarkable in a number of ways. As shown in example 4.8 and example 4.14, the toccata...
theme reappears at R118 after an extended absence. At first it is centered on D♭ and the five-flat collection. However, at R119 + 2 C♭ supplants C₃ as bassoons and horns superimpose fragments from the fanfare theme suggesting G♭ centricity. G♭ is unambiguously confirmed at R120 + 3 by six-flat diatonic scales emphasizing G♭.¹⁷

As D♭ subtly gives way to G♭, the fanfare theme meanwhile takes on more and more prominence while the toccata is gradually liquidated. By the time the solo horn takes up the fanfare at R120 + 4, the toccata’s characteristic shape has dissolved into a bubbling stream of scalar thirty-second notes in an accompanying role. In an important sense the toccata is still “present” all the way through example 4.14, but that presence hinges upon hearing the transfiguration of the toccata into this scalar material as the music of this passage progresses. In this way the toccata can still be associated with the SUBSUME transformation from G♭ to G at R121. At R89 the fanfare “passes the torch” to the toccata; at this point the toccata is passing the torch back to the fanfare, and in fact the fanfare becomes a significant theme of the movement’s conclusion while the toccata is relegated to relative obscurity.¹⁸

In addition to manifesting yet another SUBSUME transformation in conjunction with the toccata, the arrival on G at R121 receives additional, unique significance. At this point, the violins and glockenspiel reintroduce the melody that opened the first movement of the entire symphony (and has not been heard since the closing moments of that first movement). This melody is presented in counterpoint with another theme in violas and

¹⁷The shift from D♭ to G♭ is an instance of EXCHANGE, which for our present purposes is not significant. EXCHANGE is associated at various times with every theme used in the movement, as shall be discussed later in this analysis.

¹⁸It is worth noting that Bernstein’s eight-measure cut just before R129 deleted a climactic final restatement of the toccata. That Bernstein suggested the removal of these measures, and that Copland came to agree to the cut, suggests that their intuitions reflect the toccata’s role as described in this analysis. After the tonal return to D centricity is achieved at R124, the toccata’s raison d’être is exhausted, and any further restatements of it become superfluous.
trumpet that also originated in the first movement. The conflation of the fanfare, the
toccata-based scalar motives, and these first-movement melodies, just as the tonality is
nudged up one more half step, all make this a magical moment of the symphony. By
recapitulating and superimposing these themes at R121 Copland has granted its pitch
center, G, a special status that will impact this analysis.

Of course, G♭ and G also meet the other criteria already established for
membership among the structural pitch centers of this movement. They are presented in
tandem with the toccata theme, they are joined to one another by a SUBSUME shift, and
they are retained as pitch centers for relatively long periods of time. They therefore
might be appended to the series of structural pitch centers already explored above (D–E–
F), and the resulting tonal thread continues its upward motion through pitch space by half
and whole steps. Some ramifications of this thread for the movement’s overall tonal
structure are considered in the next section.

**Tonal Structure and Motivic Parallelisms**

Among this movement’s plethora of pitch centers are some that might be
considered to bear greater structural weight, as suggested in the previous section. This
analysis privileges certain pitch centers based on their meeting specific, significant criteria.
Example 4.15 culls from the movement only those centers that are associated with the
toccata theme, that are linked with a SUBSUME transformation, and that are retained as
pitch centers for relatively long periods of time. Only the final D of example 4.15 is not
directly linked with SUBSUME or the toccata theme, but the intense emphasis it receives

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19G♭ centricity lasts for approximately thirteen to fourteen measures, depending on how one parses
the gradual emergence of this tonality from the preceding D♭ just after R119. G centricity continues past
the end of the music shown in example 4.14 for a total of about twelve measures. Note also the slower pace
at which the measures of this 4/8 meter expire; Copland’s tempo markings in the revised 1966 score
indicate eighth note = 104 at R118 and eighth note = 96 at R121.
as the final pitch center of the entire symphony cannot be overlooked. This ultimate D also frames the tonal structure with the D that served as the goal of the fanfare introduction. The intervening pitch centers of this example, if themselves considered in pitch space, fill in the gap between D and G with half- and whole-step motion leading to G.

Example 4.15. Tonal thread of the fourth movement

Privileging pitch centers with these attributes has perceptual value. In light of the frequent tonal shifts that permeate this movement, it makes sense to regard with greater structural weight those tonalities that don’t dissipate quickly. That such tonalities make consistent use of the main toccata theme reinforces their sense as tonally significant, especially given the slow introduction emphasizing this theme just before the Allegro begins. Finally, SUBSUME shifts are stressed as such in at least two locations. The shift from C to Eb after R91 (see example 4.10) explicitly recontextualizes the content of C’s fifth-complex in Eb’s major scale as discussed above. At R98, the SUBSUME shift from E to F is accomplished by altering a passage that, when heard previously at R93, was clearly diatonic to a single major scale and centered on a single pitch. The altered version culminates with a chord at R99 that stresses C as a of F in its highest register but also includes A and E, which are the members of E’s fifth-complex that can continue in F’s

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20C and Eb do not, however, retain structural weight in this analysis because neither pitch center is retained for very long. This is the first in a quick succession of three SUBSUME shifts that, as described below, “undo” a series of three EMERGE shifts and thus lead back to the opening tonality, D, at R93. Example 4.8 shows these six shifts in succession beginning at R90.
major scale. The tonal thread, which at first seems buried in the episodic surface of this movement, is thus granted perceptual prominence by its defining features.

The tonal thread of example 4.15 actually appears as a diatonicized line in the movement’s coda, thus demonstrating the alignment of this music’s tonal structure with its surface features. Example 4.16 shows this parallelism as it appears at R127.

The lower two staves of this reduction display a recapitulation of the “hymn” theme (to be discussed below). Pounded out against the hymn in the top staff at first are open fifths on D. At R128, the top two voices of the reduction ascend to E and its fifth, and then to F♯ and G and their associated fifths before landing on D and its fifth at R129. This music thus summarizes the tonal thread of example 4.15 (while omitting the non-diatonic F♯), which by this point in the movement has already been completed. It also continues the notion of fifth-shadowing that has characterized earlier themes and pitch
centers in the movement by presenting each pitch of the tonal thread motive alongside its “dominant” note. The sonority marking the arrival on D at R129 epitomizes this fifth-shadowing by superimposing the D triad (including its fifth, A) above G, its subdominant, in its bass. D’s entire fifth-complex is thus articulated at the culmination of this motivic parallelism.

Finally, taking one more step back from the analysis of example 4.15 uncovers a further parallelism with the opening motive of the fanfare’s melody. G is the goal of the final SUBSUME transformation at R121, and is marked also by the return of the first-movement theme (helping to define the magical moment described in the last section). If we therefore retain G alongside only the heavily emphasized Ds that bookend both the tonal thread and this movement’s music following the introduction, we are left with the pitch-center series D–G–D. As shown in example 4.17, translating those three pitch centers back into pitch space yields the opening motive of the fanfare. The tonal thread thus is aligned with the melody serving as a “motto” for the entire movement.

Example 4.17. Opening fanfare motive as suggested by the tonal thread

This representation of the motive starts and ends on D, reflecting (of course) the Ds framing this movement’s tonal design. On the other hand, example 4.17’s manifestation in pitch space of these three most fundamental tonalities itself suggests G as its pitch center. The ascending motive D–G–D characteristically implies scale degrees $\hat{5}$–$\hat{1}$–$\hat{5}$ of G rather than $\hat{1}$–$\hat{4}$–$\hat{1}$ of D, even though intuition suggests this movement, at the largest level, should be regarded as focused on D rather than G. The tonal thread of the movement, like its themes and pitch centers throughout, suggests the issue of fifth-shadowing. Examples 4.15 and 4.17 illustrate that, at the most global level, D as a “main” pitch center is presented alongside strong emphasis of its subdominant, G.
Examination of the toccata music in tandem with the pitch centers it asserts and the SUBSUME shifts with which it is typically affiliated thus points to the analysis of example 4.15 as a sort of tonal scaffolding for the rest of the movement. In analogy to the A-major and F-major tonal pillars that frame Appalachian Spring’s “Eden Valley,” the tonal thread of the Third Symphony’s finale stands as a basic skeleton to be elaborated by the other, less structural pitch centers explored as the movement progresses. The next several sections of this chapter investigate the elaborations offered by other themes, pitch centers, and tonal shifts and their relationships to this tonal thread.

**The Rumba Theme and EMERGE**

*The Rumba in R90 to R91*

Like the fanfare theme, the theme labeled “rumba” in example 4.8 is most closely associated with EMERGE tonal shifts. As shown in example 4.8, focus shifts at R90 from the toccata theme to introduce the rumba. This new melody, which derives its designation from its characteristic rhythm (\[\text{music symbol}\]), is marked as it appears in example 4.18.
Example 4.18. R90 to R91 – 1

The rumba is presented imitatively at first, counterpointed against free-flowing sixteenth notes derived in part from toccatas 2 and 3 (as indicated in the example). This
imitation is *diatonic*, recreating the theme at different pitch-class levels but preserving the prevailing E major collection for a little over four measures. Unlike the toccata, the rumba’s identity depends upon its characteristic rhythm and melodic contour rather than on association with specific scale degrees of a given diatonic scale. The rumba is also affiliated with a particular type of major-scale relation: EMERGE. This affiliation is initiated even as the rumba debuts at R90, for at just this point the D centricity that has prevailed since the end of the movement’s introduction is replaced by centricity on E and its associated diatonic collection. This T₂ shift from D to E is an instance of EMERGE.

Also shown in example 4.18 is the next change of pitch center following E’s establishment at R90. Beginning five measures before R91, the first violins arpeggiate a sequence of major triads related by T₂, beginning with E and moving up by whole tone until reaching B♭ in R91 – 3. The transitory character of this passage, resulting from the abandonment of a consistent diatonic collection, is supported by the rhythmic instability of the melody as it repeats the rumba’s syncopation several times. Examples 4.19 and 4.20 dissect this melodic material in detail. The line is supported by quick octave leaps in the other strings (not shown in example 4.19) that add emphasis to the fifths of the triads in this passage (and thus reflect the notion of fifth-shadowing intrinsic to this movement).

(Previous four measures
diatonic to E)

\[ E \rightarrow F^\sharp \rightarrow A^b \rightarrow B^b \rightarrow E^b \] (diatonic to Eb)

\[ \frac{3}{E^b} = \frac{5}{C} \]

(toccata emphasizing \(^\uparrow\))

Example 4.19. R91 – 5 to R91 + 3, first violins
By beginning the F♯, Ab, and B♭ triads with their thirds, these T₂ shifts stress their identity as manifestations of EMERGE: the third is the only member of each new triad that is not also a member of the diatonic collection suggested by the previous triad. For example, F♯ and its fifth C♯ are both diatonic to the E-major scale. The shift out of E diatony to the F♯-major triad can be perceived only because Ab, the third of F♯, is not diatonic to E. Such preparation of the new ^1 and ^♭ is in fact a typical feature of EMERGE transformations.

The series of T₂-related triads ends with the B♭ triad of R91 − 3, which is followed by its “dominant resolution” to E♭. The remaining two measures before R91 are diatonic to E♭. This transition is not unlike a modulating episode of a Vivaldi ritornello form: after cycling through a harmonic pattern (here related by ascending whole tones rather than a baroque circle of diatonic fifths), the cycle stops on the dominant of the new harmonic arrival point. In this sense at least we might say that the goal of this transitory passage that began on E (as a triad and as a pitch center) is E♭. This transition thus demonstrates a preoccupation with EMERGE on two different levels. Regarding each major triad labeled in example 4.19 as representative of a major scale rooted on the same pitch class allows for the interpretation of example 4.20, which shows that the EMERGE shift from E to E♭ is realized via a more-local series of EMERGEs (i.e., T₂) followed by a single EXCHANGE. In this way the rumba theme strongly asserts a preoccupation with EMERGE (and T₂ transformations in particular) that will characterize all its appearances in this movement.
Finally, E♭ is itself succeeded by C at R91 as shown in example 4.19. The G on
which the repeating melodic syncopations finally come to rest in R91 − 1 is immediately
reinterpreted as ^5 in C major. The listener has been already conditioned to hear toccata
1, presented beginning in R91, as a decoration of ^5. When G is thus decorated by toccata
1’s reappearance at R91, C centricity is therefore posited. Even as the rumba hands
thematic supremacy back to the toccata, it does so on its own terms: the movement from
E♭ to C is an instance of EMERGE (T₃), the rumba’s preferred transformation type.²¹

*The Rumba in R95 to R96*

The next time that the rumba and toccata themes abut one another is at R96.
The music leading up to this moment, shown in example 4.21, makes use of EMERGE
(and, secondarily, EXCHANGE) in a way that recalls the music just before R91.

Following the arrival on a D-majorish harmony at R94’s downbeat, the rumba
appears, juxtaposed against cascading sixteenth notes that echo the toccata. See example
4.21. The tonal focus of this passage is interestingly vague until R95, despite its
maintenance of the two-sharp diatonic collection (with the exception of a hardly-audible
passing F♯ just before the punctuating chords of R94 + 2 and R94 + 4). The rumba
theme’s two-bar phrases emphasize the tonic and dominant notes of A. Meanwhile, the
*sforzando* downbeats following these phrases contain the members of the D major triad as
a subset, though their ability to assert D is muddied by their F♯ bass and, in the chord at
R94 + 4, the B in the chord’s topmost register. When the rumba melody comes to arrive
on C♯ at R95, accompanied now by an unadorned A major triad that is stressed with a

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²¹It is interesting to note that the EMERGE transformations that characterized the rumba music
between R89 and R91 are followed by a series of three SUBSUME transformations as the toccata theme is
subsequently developed. (This is readily observed in example 4.8.) Moreover, the three EMERGE shifts—
T2, T11, and T9—are each “negated” by their mod-12 complementary SUBSUME shifts: T10, T1, and
T3 respectively. The net result of these six changes in pitch center is a return to the movement’s main
tonality, D, at R93.
snare drum rim shot, it is difficult not to perceive A as a new pitch center, and in fact the rumba-derived melody of R95 begins by arpeggiating A major. As a pitch center A is fifth-shadowed. The mixolydian version of 7 appears in R95 + 1 and R95 + 3 as G♯, thus flavoring A with D’s diatonic collection despite the strong emphasis placed on A by the sforzando chords.

Example 4.21. R94 to R96 + 2

The A♯s just before R96, on the other hand, do suggest a change in pitch center. The melodic analysis of example 4.22 shows that E, the last major triad diatonic to A, is followed by an F♯ major triad that points the way to B centricity. This modulatory passage works in much the same way as that just before R91, and makes similar use of the repeated syncopations derived from the rumba. In that light the T₂ movement from E to
F♯ in R96 – 1 might be regarded as a truncated version of the T2 triadic chain witnessed before R91. Also parallel to R91 is the taking up of the toccata theme (in R96 + 1) following the rumba-induced tonal shift. The toccata begins again in R96 + 1 with its characteristic decoration of ♯; that is, ♯ in B is immediately reinterpreted as ♯ in E.

(diatonic to A)   |   (diatonic to B)   |   ♭B = ♯/E

Example 4.22. Analysis of melody from R96 – 2 to R96 + 1

In summary, the music of R95 to the downbeat of R96 + 1 contains a single tonal shift from A to B, which represents EMERGE. That shift is accomplished via T2 movement between E major and F♯ major triads, which in analogy to R91 also represents EMERGE. This passage is further set apart from the music immediately surrounding it—featuring the toccata theme—by EXCHANGE transformations. R95 is the culmination of a change in centricity from D to A (T7, EXCHANGE). After moving from A to B via EMERGE, tonal movement by T5 (EXCHANGE) to E immediately follows and thus complements the T7 shift. The net result of this entire rumba-based episode, which began at R94, is a shift in centricity between D and E, the first two elements of the movement’s tonal thread.

The Rumba in R112 to R117

The rumba returns for the final time beginning at R112. While its presentation in this passage is different in many ways from its previous appearances, this analysis shows that its tonal role in the movement continues here.

R112 begins by presenting the rumba in imitative texture with accompanying ostinati, as shown in example 4.23.
Example 4.23. R112 to R112 + 6

The ambiguity created by fifth-shadowing permeates the passage. While this music is diatonic to the one-flat collection, suggesting centricity on F, emphasis on B♭ is also created by the oboe’s arpeggiation of that triad in the first measure. Meanwhile, the sustained chord beginning this section models perfectly the ambiguity of fifth-shadowing. This tetrachord contains all the notes of the B♭ major triad, but its bass is E—the only note of the one-flat collection foreign to a B♭ major scale. Oscillation between F and E in fact is the basis of the ostinati that continue through the entire section, thus reinforcing F centricity via neighboring motion to and from its leading tone. The imitative treatment of the rumba is not confined to any particular scale degrees in this section; following the oboe’s outlining of the B♭ triad at R112, F major and D minor triads form incipits of the theme’s recurrence, and later entrances follow the rumba’s rough contour without outlining triads at all. This section retains centricity on F until R114, but begins with some attention to the fifth-shadow B♭.

The one-flat, F-major music is supplanted without transition by two-sharp, D-major music at R114. This move from F to D centricity constitutes another MERGE
transformation, which is consistent with the continuation of the rumba material into the section beginning at R114. In fact, another EMERGE shift takes place before R115. As shown in example 4.24, E is first emphasized as a member of D’s two-sharp collection via its stress by the first violins in R114 + 7. The characteristic quality of EMERGE is here again featured, for E, a member of the new fifth-complex, is accented as a member of the previous diatonic collection before the new four-sharp collection is established with the introduction of G♯ and D♯ at R114 + 9. The music remains focused on the rumba theme until R117.

Example 4.24. R114 to R115
The rumba music between R112 and R117 represents a tonal reminiscence of the structural pitch centers already established by the toccata theme earlier in the movement. While remaining fixated on the rumba and its associated EMERGE shifts, this music recalls the earlier steps of the tonal thread D–E–F, though not in that order. (Recall that this thread was established by each tonality’s association with SUBSUME shifts, statements of the toccata theme, and longer, more emphatic assertions of these pitch classes as centers.) This extended treatment of the rumba hits upon each of the tonalities already granted structural weight by other parameters of this analysis. Nevertheless, the rumba is unable to extend the tonal thread past F—the rumba is not associated with the SUBSUME shifts that typify the introduction of new tonalities to this thread. The music has become, in a sense, tonally stagnant.

This stasis provides a tonal explanation for the heretofore unseen musical violence that emerges as the rumba lingers past R115. The four-sharp collection is the source for restatements of the rumba’s characteristic rhythm and contour every two measures by woodwinds and strings (joined at times by a muted trumpet). Meanwhile, the horns present an augmented version of the rumba beginning in R115 + 3. As shown in example 4.25, a pair of unmuted trumpets joins the horns just before R116. Meanwhile, the woodwind/string rumba example changes contour and begins to ascend. As it does so, it abandons the four-sharp collection, and its periodic rhythm for more intense syncopations, at R116 + 5. The rumba here careens out of control into a cycle of major triads related by whole step as analyzed in example 4.26. This triadic sequence ascends higher and higher, making an entire trip through the whole tone cycle and starting again from E before finally crashing to a halt (with the rest of the music) at R117. Example 4.25 presents the enormous buildup to this dissonant climax in full score.
This series of whole-step related triads recalls the similar $T_2$ triadic series that ended just before $R91$ (see example 4.19). This earlier series also began with E-centricity, was based on a hyper-syncopated rumba motive, and relied upon ascending whole steps (which, as already discussed, suggest EMERGE via the $T_2$ relationship). The rumba sequence at $R116 + 5$ ascends incessantly as if it has lost its way, leading to increasing tonal frustration as it desperately seeks a landing point. Being based on the rumba theme, this music cannot escape the pervasive EMERGE relationships, and as such it cannot
lead to a new structural tonality in the same way that toccata-related SUBSUME relationships can. Example 4.26 shows that the $T_2$ chain actually cycles all the way back to its starting point, $E$, and then begins its futile search again. The immense crash at R117 is the ultimate result of the rumba’s tonal frustration.

Example 4.26. Analysis of rumba melody, R116 + 4 to R117

This climactic crash is, of course, reinforced in several musical dimensions. It is the goal of an enormous crescendo, several instruments are asked to flutter-tongue, and the biting chord at R117 is without parallel in the rest of the movement. In the context of this movement’s pervasive diatonicism, this pentachord ($C\sharp$, $D$, $E\flat$, $E$, $G\sharp$) is markedly anti-diatonic. Nevertheless, Copland’s careful orchestration of the measures following R117 gradually brings focus to the perfect fifth embedded in the chord. As example 4.25 shows, the piccolo’s “hesitant” solo reiterates $G\sharp$ while $C\sharp$ is sustained in octaves in the lower strings. The other pitch classes gradually fade away; the remaining open fifth points obviously to $C\sharp$ centricity. The music of example 4.25 is immediately followed by that of example 4.14, which finally ushers in the long-absent toccata theme. As already discussed, the toccata is the thematic catalyst for all the SUBSUME transformations that constitute this movement’s structural tonal thread. It is fitting that, after the rumba’s frenzied attempts to “move past” the already-attained steps of the tonal thread, it collapses with exhaustion. Meanwhile, the toccata emerges from the wreckage of R117 to fulfill the
tonal role that the rumba cannot, and eventually furnishes the SUBSUME shift from G♭ to G that continues the tonal thread (as discussed in the previous sections).\textsuperscript{22}

This survey of the rumba’s appearances in the movement shows that, as the toccata is aligned with SUBSUME, so the rumba is aligned with EMERGE. In that sense the rumba provides a “complement” to the toccata theme, and in fact the rumba’s first tonal shifts do literally complement the toccata’s first shifts (see note 20). The rumba is also assigned a role that is subsidiary to that of the toccata. The rumba is unable to present new structural pitch centers; this incapability provides a tonal impetus for the violently explosive climax at R117 that is otherwise quite uncharacteristic of this movement’s music. By considering the rumba, and its focus on EMERGE shifts, in light of the structural tonal thread and its affiliation with SUBSUME and the toccata, the great majority of the movement’s tonal shifts can be explained and related to one another.

**Interruption and Reconciliation using ISOLATE**

In contrast to EMERGE and SUBSUME shifts, EXCHANGE shifts appear in conjunction with each of the finale’s themes and do not exhibit a particular thematic allegiance. The only type of transformation that remains unexplained is ISOLATE, or T\textsubscript{6}. As observed earlier, ISOLATE transformations provide a uniquely vigorous boundary between the two major scales involved, in that they manifest the only possible relationship between major scales wherein neither tonic involved is preserved in the other’s major scale as a common tone. Overall, only two pitch classes from the first scale are

\textsuperscript{22}It is worth mentioning that E, the last “stable” pitch center prior to the T2 cycles leading to R117, and C\textsubscript{♯}, the pitch center that materializes from the crash of R117, together form an instance of EMERGE (T\textsubscript{6}). Even as the rumba crashes into the R117 chord, it does so in a way that preserves its allegiance to EMERGE relationships.
retained in the second. The effect of a sudden ISOLATE shift is therefore especially abrupt.

In that light, the only two $T_6$ shifts in the entire movement, at R101 and R103, create especially jarring tonal effects unduplicated elsewhere in the finale. As shown in example 4.8, following the climactic arrival on F in the tonal thread these $T_6$ shifts set off a militaristic fanfare in B surrounded by two sections in F. This B-diatonic music, already thus marked by its placement in the midst of the structural statement of F, is further set apart as a sort of interruption in other musical parameters (as discussed below). In the context of this movement this B-diatonic fanfare, introduced and left via the movement’s only ISOLATE transformations, constitutes a sort of tonal anomaly that requires—and receives—a reconciliation later in the work.

The two ISOLATE shifts are shown in example 4.27. At R101 the F diatony is suddenly supplanted by the five-sharp diatonic collection, and B is abruptly asserted as the new pitch center. This $T_6$ shift is followed by an equally abrupt $T_6$ shift at R103, returning the music to F and the one-flat collection. The tritone separating F and B, and the dearth of common tones shared by the relevant diatonic collections (let alone their fifth-complexes), create a strong sense of discontinuity at these tonal seams. This discontinuity is further emphasized in other musical dimensions. At R101 the texture of cascading sixteenth notes is abruptly choked off and replaced by motives from the fanfare, heard for the first time since the movement’s introduction, presented here in imitation by trumpets and trombones. Similarly, the seam at R103 is stressed by a two-beat silence, an indication for a new, somewhat slower tempo, and—given the vigorous, militaristic treatment just before R103—an unexpectedly delicate approach to dynamics and instrumentation.

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This tempo marking is absent from the original 1947 edition of the published score.
Example 4.27. Tonal shifts at R101 and R103

This music centered on B between R101 and R103 represents a tonal interruption. Its disruption of the preceding toccata music in F via ISOLATE, its own disruption by a return to F via ISOLATE, and its separation from the surrounding music via other musical parameters all mark this passage as “out of place.” Even as the tonal thread traces its way past this interruption to its ultimate arrival on D, the memory of this circuitous path around B is retained, and is eventually addressed following the culmination of the structural movement to D. This militaristic statement of the fanfare theme in B constitutes a tonal “problem” that requires reconciliation.

That reconciliation comes near the work’s end. Example 4.28 shows that, when the fanfare finally returns in a similarly militaristic setting at R125, it does so again in B.
This time the fanfare is surrounded on both sides by music centered on D, for the tonal thread is now complete and has reached its arrival on D. The ISOLATE shifts that had previously been required to move to and from the B-centric fanfare are here absent. Instead, B is introduced by an EMERGE shift from D in acknowledgment of the EMERGE shifts that dominated the fanfare introduction to the entire movement. The less-straightforward return to D from B is shown in example 4.28.

Example 4.28. R126 + 4 to R127

The fanfare is here reharmonized with quintal trichords (suggesting the notion of the fifth-complex that has proven so crucial to the movement) and major triads (F and A) that cannot share a single diatonic collection. The fanfare’s last three chords, culminating at R127, duplicate the end of the original fanfare (compare example 4.1 with example 4.28): A major, F major, D major. The diatonic-collectional uncertainty of these measures blurs the boundary between the old and new pitch centers (B and D), which would otherwise suggest a SUBSUME shift. This seems appropriate given SUBSUME’s allegiance elsewhere in the movement to the toccata and not the fanfare. Crucial to the present discussion is that the ISOLATE shifts that had characterized the B-centric fanfare music at R101 are here neutralized and replaced by tonal shifts that are more typically associated with the fanfare theme (and with the rest of the movement in general). The
ISOLATE-based interruption of the tonal thread by the B-centric fanfare is rendered irrelevant by the tonal thread’s arrival at its ultimate goal, D; the B-centric music can now be reconciled to its surroundings (via more typical tonal shifts) as the work draws to a close.

Example 4.29 compares and summarizes the treatment of the two appearances of the militaristic fanfare statements in B. The “problem” of the ISOLATE transformations setting off the B-centric fanfare at R101 is solved in the coda by bookending the fanfare with D-centric, rather than F-centric, music. The unique characteristics of ISOLATE are linked with the presentation of a specific theme in a specific tonality to generate an interesting tonal sub-plot that ornaments the movement’s tonal structure as explored in earlier parts of this analysis.

**Interruption:**

<table>
<thead>
<tr>
<th>R99</th>
<th>R101</th>
<th>R103</th>
</tr>
</thead>
<tbody>
<tr>
<td>climactic toccata</td>
<td>militaristic, imitative fanfare</td>
<td>delicate fanfare</td>
</tr>
<tr>
<td>F</td>
<td>B</td>
<td>F</td>
</tr>
</tbody>
</table>

**Reconciliation:**

<table>
<thead>
<tr>
<th>R124</th>
<th>R125</th>
<th>R127</th>
</tr>
</thead>
<tbody>
<tr>
<td>hymn, mvmt. I theme</td>
<td>militaristic, imitative fanfare</td>
<td>hymn</td>
</tr>
<tr>
<td>D</td>
<td>B</td>
<td>D</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>EMERGE</th>
<th>SUBSUME</th>
</tr>
</thead>
<tbody>
<tr>
<td>(T9)</td>
<td>(T3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>blurred by collectional uncertainty</td>
<td></td>
</tr>
</tbody>
</table>

Example 4.29. Summary of tonal treatment of militaristic fanfares in B

**The Transcendent Hymn Theme**

Thus far this analysis has addressed the correspondences between this movement’s themes and various specific categories of major-scale transformations. The only theme
not yet explored is a special case in that it transcends any potential correspondence to a specific transformational category. This theme is atypical in so many other parameters, however, that its independence from any allegiance to specific types of shifts seems appropriate. Its unparalleled musical character and its surprising late appearance in the movement suggest that, when viewed in terms of its tonal shifts, it naturally will refuse to conform to expectations in this domain as well.

When F centricity is taken up again at R103 following the first B-centric fanfare, it is retained (with its associated one-flat collection) for nearly twelve more measures before being replaced at R104 + 4 by G and the one-sharp collection. This music is saturated with motives from the fanfare, so it makes sense that the next tonal shift is a manifestation of EMERGE.

After the shift to G and the one-sharp collection at R104 + 4, a new, hymn-like theme appears at R105 accompanied by a descant of sixteenth notes in first violins. This is shown in example 4.30.

Example 4.30. R105 to R105 + 7
The presentation of a new theme so late in the movement is striking. As seen in example 4.8, each of the other main themes (the fanfare, toccata, and rumba) has been exposed multiple times by this point. In contrast, the hymn of R105 is not heard until over six minutes into the movement. Additionally, this gentle music stands in rhetorical opposition to the frenzied activity that has permeated most of the movement to this point. The hymn’s unique metrical setting and homophonic harmonization emphasizing planed diatonic triads are unparalleled in the movement’s earlier music. The hymn theme lingers for some time, permeating the music until R110, but then does not return until the work’s coda. This section of the movement (R105 to R110) might well be regarded as the metaphorical “eye of the storm,” offering a respite from the restless activity that characterizes the toccata and rumba themes and the frequent tonal shifts of the rest of the movement.

The hymn in fact undergoes only two shifts in tonal centricity: from G to D at R107, and from D to Eb just before R109. The move from G to D manifests EXCHANGE, a shift that is not directly associated with particular themes in this movement. (In fact, EXCHANGE is associated at various times with every theme in the movement.) The association of G and D as pitch centers with this theme, though, creates a parallel with the tonal structure of the entire movement in light of the foregoing analysis. Example 4.15 and the accompanying discussion have already shown the importance of D and G to the tonal organization of this movement at the highest level. It is fitting that this hymn theme, which is in a highly contrasted character and situated approximately halfway through the movement, focuses on G and D (before turning briefly to Eb). The juxtaposition of G with D at R107 forecasts the ultimate completion of the tonal thread at R124 where G again gives way to D.

The hymn’s shift from D (and the two-sharp collection) to Eb (and the three-flat collection) at R109 represents SUBSUME, the type of transformation that is affiliated with the toccata theme every other time it appears in this movement. At first this
SUBSUME shift may seem an inconsistency, but it may also be viewed as the exception that proves the rule. As discussed above, the hymn theme transcends the bustle of the rest of the movement, and is itself anomalous by simply appearing unheralded so late in the work. Why, then, should it not also transcend the surrounding music’s conventions regarding tonal shifts? Moreover, just as the shift from G to D is reflected by the finale’s large-scale emphasis of D shadowed by G, the hymn’s employment of SUBSUME further reflects the type of shift that is most essential to the movement’s tonal thread. The hymn music from R105 to R110 might be viewed as a microcosm of the entire finale’s tonal preoccupations with specific tonalities (G and D) as well as its favoring of certain types of shifts (SUBSUME) to help generate its structure. Even as it stands in contrast to the vigor and athleticism that permeate the rest of the finale, the hymn section’s pitch centers are aligned with the tonal concerns of the surrounding music, as is, in the case of the shift from D to Eb, its movement between pitch centers.

**Formal/Tonal Interactions and Conclusion**

Copland’s own description of this movement’s formal design suggests it might be regarded as a modified sonata form:

The final movement follows [the third] without pause. It is the longest movement of the Symphony, and closest in structure to the customary sonata-allegro form… The fanfare serves as preparation for the main body of the movement which follows. The components of the usual form are there: a first theme in animated sixteenth-note motion; a second theme—broader and more song-like in character; a full-blown development and a re-fashioned return to the earlier material of the movement, leading to a peroration. One curious feature of the movement consists in the fact that the second theme [the hymn] is to be found embedded in the development section instead of being in its customary place. The development, as such, concerns itself with the fanfare and first theme fragments. A shrill tutti chord, with flutter-tongued brass and piccolos, brings the development to a close [R117]. What follows is not a recapitulation in the ordinary sense. Instead, a delicate interweaving of the first theme in the higher solo woodwinds is combined with a quiet version of the fanfare in the two bassoons. [The bassoons
enter at \( R119 + 1. \)] Combined with this, the opening theme of the first movement of the Symphony is quoted, first in the violins [R121], and later in the solo trombone [trombones 1 and 2, R124]. Near the end a full-voiced chanting of the second song-like theme is heard in horns and trombones [R127]. The Symphony concludes on a massive restatement of the opening phrase with which the entire work began.\(^{24}\)

The composer’s comments are certainly intended as program notes for an uninitiated audience; his comparison to sonata form perhaps represents an effort to provide a helpful reconciliation between that audience’s experience with traditional forms and the form with which it is about to be confronted. His description provides aural signposts for which to listen, such as the “shrill tutti” of R117 and the first-movement theme’s return. One positive feature of Copland’s comparison of the movement to sonata form is its acknowledgment of the late arrival of the “second” (i.e., hymn) theme. The hymn does appear much later than one might expect a new theme, and its character is generally consistent with that of the more lyrical secondary themes in historical sonatas. Other formal elements distancing this movement from typical sonata form are not mentioned by the composer. Where, for instance, does the exposition end and development begin? Developmental treatment of the toccata and rumba themes begins almost immediately upon their introduction. For that matter, what is the primary theme? Copland’s discussion implies that the toccata and rumba music are to be regarded as a single thematic “area,” despite their differences and usually discrete treatment as outlined above. Copland seemed to be comfortable with the failing of these formal markers to live up to the typical expectations of sonata form. Moreover, the conception of sonata form upon which he relies for his brief analysis depends entirely upon thematic, rather than tonal, events.\(^{25}\)


\(^{25}\)Copland’s widely-read What to Listen for in Music includes a chapter on sonata forms in which he clearly demonstrates an understanding of textbook classical-era sonata form, complete with its dominant-
Copland’s focus upon thematic events as formal signposts for the uninitiated listener is certainly a reasonable one. A more thorough and comprehensive view of this movement, however, should certainly take its tonal events into account as well. The correlations between themes and the four categories of major-scale transformations explored above provide opportunity for a richer explanation of this movement’s form. One of the formal contributions provided by the preceding classification of major-scale relationships has already been mentioned: it illuminates further distinction between themes based on their associations with specific types of shifts. Thus, in this more-nuanced perspective the toccata and rumba themes enjoy greater differentiation than is implied by Copland’s description. Recall that it was in fact the association of the fanfare theme with specific tonal shifts \((T_4 \text{ and } T_{11})\) in this movement’s introduction that first suggested the value of linking themes with distinctive types of shifts between diatonic collection and pitch centers.

Consideration of the movement’s tonal structure also casts new light on the music beginning at \(R118\), which Copland labels the “recapitulation” (though “not in the ordinary sense”). Thematically this designation makes sense, as \(R118\) marks the point at which the “primary” (i.e., toccata) theme returns, followed by many of the other significant themes of the movement (and the whole symphony). On the other hand, the toccata’s return at \(R118\) takes place not in \(D\)—the tonality in which it was introduced

tonic opposition and its affiliation with “masculine” and “feminine” themes. He also makes comments about the sonata form’s adoption by modern-era composers—comments that are apropos to the present discussion: “One of the most extraordinary mistakes in music is the example supplied us by Scriabin… The quality of his thematic material was truly individual, truly inspired. But Scriabin, who wrote ten piano sonatas, had the fantastic idea of attempting to put this really new body of feeling into the straitjacket of the old classical sonata form, recapitulation and all. Few modern composers make that error any longer. In fact, they sometimes go to the other extreme, giving so liberal an interpretation to the word sonata as to make it practically meaningless. So that nowadays, the listener must be prepared for almost any application of the term.” Aaron Copland, What to Listen for in Music, 153. Copland’s own description of this movement may constitute just such a vague application.
when first exposed at R88—but in D♭. As already noted, the tonal thread of this
movement is not completed until D finally returns at R124. This study’s classification
scheme is hardly necessary for the observation that the “recapitulation” at R118 in D♭ is
tonally “wrong.” The “crash” of R117 and the following emergence of the toccata theme
in the piccolo certainly lend special weight to this thematic presentation, and may indeed
evoke the rhetoric of recapitulation. The analysis presented here gives rise to a nuanced
view of R118 as a thematically, rather than tonally, significant moment. In contrast, the
tonal thread provided by this scheme constitutes an impetus for the progress through G♭
and G to D in the music following the toccata’s return at R118. Copland’s “peroration”
later in the movement is, in this sense, a celebration of this long-expected arrival on D
and the conclusion of the tonal thread. The later return to D at R124 provides an
opportunity for a second, tonal culmination, thus expanding this symphony’s conclusion
into an apotheosis of Mahlerian proportion.

When the tonal thread culminates on D centricity at R124, the hymn theme also
returns after a long absence, and the toccata theme—as represented by its liquidation into
fast-moving scalar passages—finally disappears completely, not to reappear.26 To be sure,
there are historical sonata movements that fail to recapitulate their primary themes in the
main tonality. Nevertheless, when one considers this omission alongside the absence of a
boundary delineating exposition from development, the “curious” late-arriving secondary
theme in the midst of the development, and the consistently ephemeral treatment of both
thematic material and pitch centers throughout, one is left wondering how useful the label
“sonata” really is in discussing this movement.

To come to grips with this formal design, we might instead consider the richly
episodic treatment given to themes and pitch centers throughout this movement.

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26 Bernstein’s cut in fact removes a final triumphant shouting of the toccata theme from its position
just before R129, near the end of the movement.
Example 4.31 superimposes the tonal thread, a summary of the appearances of the movement’s various themes, and Copland’s own description of the finale as a sonata form. This superimposition illustrates the difficulties of reconciling this movement, with its unique approach to tonal structure and thematic presentation, to sonata form. There are moments of rhetorical climax, to be sure—the toccata statement at R99 in multiple octaves (example 4.13), the following fanfare interruption in B (example 4.27), and the rumba’s “crash” at R117 are each examples of this. Equally significant because of its sharp rhetorical contrast with the rest of the movement is the hymn music of R105 to R110. If we regard such moments in light of the work’s tonal structure rather than in relief to a “sonata” form then that structure and the formal design tend to illuminate one another with greater intensity.

The R99 toccata statement represents the shift to F from E centricity via SUBSUME. Its climactic presentation, already discussed above, serves to emphasize that arrival on F. In addition, this moment marks the last move in the tonal thread for some time—example 4.8 shows that ten other pitch centers separate the F centricity of R99 with Gb’s appearance after R119. This temporal separation from the following part of the thread suggests the division of the tonal thread into two segments: D–E–F and Gb–G–D. R99 manifests the end of the thread’s first segment; its climactic reinforcement in other musical parameters is therefore only appropriate.27

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27In light of the composer’s sonata-form explanation, a case might be made that this passage at R99 might represent, in its rhetorical intensity, the end of the exposition. However, the fact that both the toccata and rumba have undergone substantial developmental treatment before this section would seem to undercut such a perspective, as well as a view of this movement’s manifestation of sonata form in general.
<table>
<thead>
<tr>
<th>D</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G#</th>
<th>G</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>$T$</td>
<td>$R$</td>
<td>$T$</td>
<td>$R$</td>
<td>$T$</td>
<td>$F$</td>
<td>$H$</td>
</tr>
</tbody>
</table>

$T =$ toccata, $R =$ rumba, $F =$ fanfare, $H =$ hymn, $I =$ opening first-movement theme.

Example 4.31. Sonata-form and episodic perspectives of the finale (following its introduction)
The fanfare’s B-centric interruption at R101 continues the climactic emphasis of the previous F-centric music. In so doing it stressing the incongruity of the sudden ISOLATE transformation introducing it, and as described above, it points to the potential for reconciling the incongruity. Such a reconciliation takes place when B-centric fanfare music is reintroduced, this time introduced by a more-typical EMERGE shift.

The violent climax at R117 has already been analyzed as the result of a specific interaction between formal (i.e., thematic) and tonal concerns. Beginning at R112, as the rumba tries desperately but unsuccessfully to continue the progress of the SUBSUME-based tonal thread, it instead spins out EMERGE shifts one after another. Example 4.26 shows the end of a mad cycle of T2 shifts leading directly to the “crash” of R117 (Copland’s “shrill tutti”). From the wreckage of this climax the toccata finally peeks out and eventually paves the way to the remainder of the tonal thread.

Finally, the hymn music beginning at R105 has been shown to represent a sort of summary of the movement’s tonal concerns. It links G and D, the two most significant pitch centers of the finale, and the only other pitch center evoked here (Eb) creates a SUBSUME move from D, echoing the importance of SUBSUME (alongside the toccata and other musical parameters) to recognizing the finale’s unique approach to tonal alignment.

In this analysis the interest clearly lies in the interactions between structural pitch centers (as defined by the tonal thread) and thematic events. Like a classical-era sonata, this movement’s architecture hinges upon the relationships between specific tonalities and the thematic materials defining and connecting them. In contrast to Copland’s own summary description, however, this analysis grows out of the observation of specific correspondences between thematic materials and types of tonal shifts in the beginning of the movement itself, rather than comparison to other pre-existing compositional “molds.” Instead of representing a sort of modified sonata form, this movement is better (and more completely) regarded on its own specific, context-defined terms. Such specificity allows for
a close examination that starts, as Berger suggests, “from what this music itself is, rather than dwelling upon its deviation from what music was previously.”

\textsuperscript{28}Berger, “Problems of Pitch Organization in Stravinsky,” 11.
Chapter 5

The Sonata for Violin and Piano

Summary of Tonal Issues

Copland’s Sonata for Violin and Piano, completed in 1943, is described by Pollack as a wartime piece in part because of its “intermittent elegiac passages” and its “suggestion” of “the values at stake: peace, civility and freedom,” and in part because of its dedication to Lieutenant Harry H. Dunham, a friend of Copland and his circle who was shot down in the Pacific theatre of World War II just as the work was being completed.1 It was Copland’s first work featuring solo violin since the Two Pieces for violin and piano of 1926, and his only chamber work including violin between 1937 and 1950. (He apparently felt somewhat self-conscious of his inexperience with this idiom, as he asked David Diamond and the violinist Louis Kaufman for advice about fingerings, bowings, and harmonics.2) Even so, the tonal language of this work, as described aptly by Pollack, is absolutely paradigmatic of the composer’s approach:

And even the music’s largely diatonic harmonic language poses unusual challenges. For instance, the opening of the slow movement, without one accidental, suggests shifting tonal centers in the turn of one or another note. This type of ambiguity—derived largely from Stravinsky but made Copland’s own—helps provide, in Vincent Persichetti’s words, the “thin thread of tragedy, suppressed but strong” that underlies the music’s surface “gaiety.”3

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1Pollack, Aaron Copland: The Life and Work of an Uncommon Man, 384.

2Ibid., 385; Copland and Perlis, Copland: 1900 through 1942, 241.

3Pollack, Aaron Copland, The Life and Work of an Uncommon Man, 384; Persichetti, “Modern Chamber Music in Philadelphia,” 47.
The discussion of example 2.8 (in chapter 2), which displayed the first twenty measures of the Violin Sonata, introduced some of the issues determining the tonal structure of this entire work. As described there, this prologue to the first movement presents G and D concomitantly as potential pitch centers. The ambiguity between G and D is highlighted by the piano’s opening chord progressions emphasizing these pitch classes in different registers, by the violin’s stressing of the roots and thirds of G and D triads, and by the closing sonority of the passage in m. 20. The brief analysis of chapter 2 noted that this G/D duality might be expected to have consequences for the tonal structure of the remainder of the movement, if not the entire sonata. The following analysis will show how this is the case.

Before doing so, however, it is essential to consider one other tonal issue raised early in the first movement, as it interrelates with the G/D duality. The prologue of mm. 1–20 dovetails with the next section of the work, which presents a new theme as shown in example 5.1. The violin’s new theme begins in m. 21 by arpeggiating a G-major triad, but ascends through a pair of perfect fourths to land at B♭ in m. 22. Copland repeats this phrase in mm. 23–24, and extends it past B♭ to D in m. 26, thus arpeggiating a complete B♭ major triad. This phrase is extended once more in mm. 26–28, landing on a sustained G5 in m. 29. Even as the violin returns to G, however, the piano answers with a dominant-tonic progression pointing to B♭ centricity. These bars seem calculated to create a link between G and B♭.
Example 5.1. Violin Sonata, I, mm. 21–39ié

Example 5.2 shows how this minor-third relationship is in fact derived from a series of perfect fifth relationships in this longest version of the phrase—the melody can be understood as a perfect-fifth chain of overlapping references to major triads linking G to B♭ before returning to G.

4Measures divided internally by dotted bar lines, like the 5/4 measures in this example, are numbered as a single measure.
Example 5.2. Analysis of mm. 26–29

This partnering of tonalities related by minor third is reflected in the remaining authentic cadences of example 5.1. After the violin completes in mm. 29–31 a repetition of the melodic pairing of G and B₉, a dominant-tonic progression in F appears. The piano’s next entrance in m. 37 presents one more authentic cadence, this time in D. Taken together, the four pitch centers expressed thus far can be arrayed as shown in example 5.3. The heavy beam connecting G and D represents the simultaneous emphasis these pitch classes receive in mm. 1–20. The dash between G and B₉ illustrates the pairing of these pitch centers explored in mm. 21–29. Finally, the arrangement of pitch names in example 5.3 shows the stress given to perfect fifth and minor third relationships by these pitch centers.

Example 5.3. Pitch centers in mm. 1–39
The G/D duality of the prologue can generate the next new tonalities via transposition up a minor third (or, the G/B♭ pairing can replicate the other two tonalities via transposition up a perfect fifth). Only one each of the fifth and third associations is musically emphasized in these opening measures (hence the absence of lines connecting D to F and F to B♭), but the network of perfect fifths and minor thirds suggested by these pitch centers will take on significance in the rest of this movement and in the entire sonata.5

In congruence with the approach to tonalities seen thus far, subsequent pitch centers explored in this work frequently emerge in pairs related by perfect fifth or third. This pairing of pitch centers is reinforced in various musical ways; that is, the music’s presentation of these pitch centers itself suggests such pairings, much as the first thirty-nine measures suggested the linking of G to D and G to B♭. Introductions of new tonalities are ordered so that they constitute graduated extensions of the network in example 5.3. If the G/D pairing is the tonal focus of this network and composition, subsequently explored pitch centers expand the network outward via additional perfect fifth relationships (upward and downward in the visual representation of example 5.3) and third relationships (to the right). The principle tonally unifying this sonata is the use of pairs of pitch centers to explore the space surrounding G/D as illustrated visually in example 5.3.

As the first movement develops, it moves further and further from the G/D focus by positing tonalities progressively more remote (as considered in terms of fifths and thirds) from this focal point. The first movement’s close with a recapitulation of the prologue music again emphasizing the G/D ambiguity is all the more significant given—

5In fact, F is the least stressed pitch center of the four in this most basic version of the tonal network, and seems to be present simply to pin down this corner of the interlocking fifth/third relationships. This somewhat lower level of significance granted to F is replicated as the network is expanded later in the sonata. See, for instance, the discussion explicating example 5.8.
in this conception of the movement’s structure—its remote tonal forays. The second
movement, shorter and tonally less complex, is based upon a D/A tonal focus (which is
related to the G/D focus of the first movement in obvious ways). After the principles of
the tonal network have been explored and defined in the first two movements, the third
expands those principles, substituting major-third relationships for the minor thirds
emphasized in the first two movements. The use of major-third-related pitch centers in
place of minor-third relations is itself suggested later in the first movement, as the
subsequent analysis will show. The last movement’s coda reminisces on the first
movement’s prologue once more while recalling the tonal excursions of the entire sonata.

The First Movement

Example 5.4 lays out the tonalities and, in broad strokes, the thematic elements of
the Violin Sonata’s first movement. Pairs of pitches separated by a slash represent
situations analogous to the already-explored prologue, wherein two pitch classes a perfect
fifth apart are emphasized concomitantly. Pairs of pitches separated by a dash signify
minor-third related pitch classes that receive emphasis via the theme first appearing at m.
21, as seen in example 5.1. The abbreviation “A.C.” refers to authentic cadences that
help to define various tonalities throughout the movement.
<table>
<thead>
<tr>
<th>Exposition of Tonal Issues</th>
<th>Development I</th>
<th>Lyrical Middle Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>mm. 1–20</td>
<td>21 28 31 37 40</td>
<td>51 56 64 78 82 86 94 103 113 121</td>
</tr>
<tr>
<td>prologue</td>
<td>2-part cpt. over m. 21 theme as ostinato</td>
<td>transition 2-part cpt. m. 21 theme (with (\frac{5}{8}) tail) m. 21 theme</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Development II</th>
<th>Restatements</th>
</tr>
</thead>
<tbody>
<tr>
<td>127</td>
<td>149 165 173 187 193 196</td>
</tr>
<tr>
<td>m. 21 theme (with (\frac{5}{8}) tail) as ostinato</td>
<td>transition 3-part canon development of m. 127 theme “crash” “unwinding” m. 21 theme (with (\frac{5}{8}) tail) m. 21 theme 2-part cpt. (with augmentation) prologue music</td>
</tr>
<tr>
<td>G–B♭ unstable D (B?) unstable E (\rightarrow) D♯ C♯(–E) (\frac{3}{4} = \frac{4}{5}) A.C.s.♭ C F/C G/D</td>
<td></td>
</tr>
</tbody>
</table>

Example 5.4. Pitch centers and formal elements of the Violin Sonata, I
As example 5.4 shows, the movement can be considered in five large parts: the exposition of tonal issues, most of which has already been examined; two developmental sections separated by a “Lyrical Middle Section”; and a final area restating the rhetoric and themes of the expository section. As the music progresses through these sections, the network of fifths with their minor-third partners, first established in mm. 1–39 and illustrated in example 5.3, gradually extends outward from the initial G/D focal point. Looking through the pitch centers of example 5.4 demonstrates that this movement explores tonalities that are progressively more “fifths above” D (A, E, and, tentatively in “Development II,” B) as well as those progressively more “fifths below” G (C and F). All the while, the music frequently returns to G (often accompanied by its minor third, B♭), and the movement closes with the same focus on G/D with which it began. The musical linking of potential pitch centers related by perfect fifths and minor thirds characterizing the opening of this movement, circling around G and D, is thus reflected in the entire movement’s tonal organization. The details of this tonal patterning, and its musical reflections elsewhere in the movement, form the basis of the analysis that follows.

As already established, the network of tonal relationships described by example 5.3 is put forth by the opening music of the sonata, concluding with the authentic cadence on D in mm. 37–38. Immediately following this cadence, the violin leads into a new section characterized by two-part counterpoint between the violin and the piano’s right hand. These melodies are underpinned by the melody from m. 21 repeated as an ostinato in the piano’s left hand. Example 5.5 shows the beginning of this section. Note that

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6This movement might thus be related loosely to the three large sections of a standard sonata form (exposition, development, recapitulation). In this sense, at least, it suggests Copland’s own conception of sonata form as described in What to Listen for in Music (see the related discussion of the Third Symphony’s finale in chapter 4) as well as this composition’s title. Pollack’s summary of this form parallels that presented here except that he regards the “Lyrical Middle Section” as the movement’s secondary theme; in this perspective the development does not begin until m. 127 and my “Development I” is subsumed as part of the exposition. Pollack, Aaron Copland: The Life and Work of an Uncommon Man, 384–85.
Copland’s indication of dynamics reinforces the view of the piano’s left hand as
accompanimental to the counterpoint in the right hand and the violin.

This section continues the dual emphasis on G and D as structurally significant
pitch classes. The violin acccents D with prominent metrical and registral positioning, and
also presents a complete “dominant” triad in D in m. 43. The right hand of the piano
meanwhile arpeggiates a G triad in m. 42 and repeatedly oscillates between G and B in
eighth notes throughout this passage. Finally, the ostinato of the piano’s left hand
reinforces G’s prominence (while continuing to embody the pairing of this pitch center
with B♭). The overall tonality of this music is admittedly ambiguous, but that ambiguity
arises specifically out of the simultaneous emphasis granted to both G and D.

The section of two-part counterpoint over the repeating melody from m. 21 also
features more prominently the B♭/B♮ cross-relation suggested by the m. 21 melody itself.
Nearly every time the ostinato comes to the end of its repeating unit on a half-note B♮, the
piano’s right hand superimposes its oscillating G-B♭ gesture. In a sense this major-third-
versus-minor-third issue has lurked in the surface of the music from the movement’s
beginning, where the violin’s very first melodic phrase used only G, D, and their
associated major thirds (see example 2.8). Both these major thirds (B and F♯) were
contradicted by their minor third counterparts in the authentic cadences of mm. 28–33
that suggested the tonal network of example 5.3. Here, in mm. 40–50, the two types of
thirds are presented simultaneously, crystallizing the issue in the resulting half-step dissonances.

The transition beginning at m. 51 even more explicitly embraces the major third/minor third clash. As shown in example 5.6, the cross-relation between B♭ and B♮ plays a prominent role in the quasi-cadential gestures of m. 52 and m. 54. Then, beginning in m. 56, this entire complex of G with its major and minor thirds is transposed up a whole step, resulting in the similar coloring of A as a pitch center by C♯ and C♮.

Example 5.6. Measures 51–57

This latent tonal issue of major/minor third-related pitches and pitch centers emerges in myriad ways throughout the sonata. As the tonal structure’s main elements—the linking of pitch centers by perfect fifths and minor thirds—are presented, we shall see that their interactions with this subject of contrasting third relationships constitute an interesting subplot to the work’s tonal organization.

The transition leads to the section designated “2-part cpt.” at m. 64 in example 5.4. This is a highly varied repetition of the music of mm. 40–50. To illuminate the
similarities and differences between the two “2-part cpt.” sections example 5.7 superimposes them.

Example 5.7. Comparison of mm. 42–51 with mm. 64–75

The top three staves of each system, joined by a curled brace, represent the music of the first two-part-counterpoint section in mm. 40–50. The left-hand ostinato, already discussed, is included as a smaller staff. The lowest two staves of example 5.7, grouped with a straight bracket, show the music of mm. 64–75 in reduction. The piano presents a single line duplicated two octaves away. (The melody on the fourth staff of example 5.7 actually appears in the octave above and the octave below that in which it is given here.) This illustration aligns the music of these two sections so as to highlight the correlations
between them. In short, the second contrapuntal section is a rhythmic elaboration of the first, transposed up a whole step. The pairs of quarter notes in the first section’s violin part are converted into repeating pairs of eighth notes in the second section’s piano part. In addition, many of the first section’s half notes are transformed into dotted quarter/eighth patterns on repeated pitches. The ostinato permeating the first section is absent in the second. If mm. 40–50 posit G and D as competing pitch centers, then by analogy mm. 64–75 do the same for A and E, since the latter section is a near repetition of the former a major second higher.

By extending the tonal network of example 5.3 upward by perfect fifths, we arrive at the A and E of this second contrapuntal section, as shown in example 5.8. The pitch center C appears in m. 78 and will be discussed below. F is given in parentheses because it has no analogue in the new replication of the original network; if it did, it would be G, simply duplicating the tonal “starting point” of the entire network.

Example 5.8. Expanding the tonal network to account for mm. 64–75

The shift from G to A in the transition beginning at m. 51 launches the music up a whole step. In so doing, it allows the basic network of structural tonal relationships to duplicate itself at the distance of the primary tonal relationship, the perfect fifth. By
extending the perfect fifth G/D by perfect fifths past its upper note, the A/E pairing of
the second two-part contrapuntal section results. In the same way that, in mm. 1–29, G is
presented with its fifth and minor third above, A is presented in mm. 56–85 with its fifth
and minor third. The section labeled “Development I” in example 5.4 thus acts as such in
both thematic and tonal senses. The thematic material as well as the pitch-center network
of the opening fifty measures become the logical bases for the thematic and tonal
elements of this developmental music.

The theme from m. 21 returns in altered form in m. 78, as shown in example 5.9. The piano’s melody at m. 78 is derived from the last part of the original theme, as
confirmed by comparison of this melody with the violin’s in mm. 27–28 (see example 5.1).
In this case, the music centers around C by virtue of the arpeggiated C major triads in
mm. 79–80 and the ascending fourth from G to C repeatedly emphasized in the piano’s
left hand. This derived theme is itself extended with a tail of descending perfect fourths
just before m. 82, much as the original m. 21 melody gradually lengthened as it repeated
in mm. 21–28.

Lest C’s association with A (as its third-partner in the network of example 5.8) be
left ambiguous, Copland immediately follows this explicitly C-centric music with a more
complete version of the m. 21 melody in mm. 82–86. Here, the violin reprises the melody
so that it moves between emphasis on A and C in the same way the original melody
emphasized G and B♭ in the expository section. All the while, the piano sustains open
fifths on A. At this point the first expansion of the tonal network is complete: A has now
been presented concomitantly with its fifth (E) and its minor third (C). As if to emphasize
this point, the music suddenly shifts down a whole step at m. 86 to repeat the m. 21
melody again—this time at its original pitch level, stressing G and B♭. The excursion into
the upper portion of the tonal network, focusing on A alongside E and C, began with the
tonal shift from G to A at m. 56. Now that this area of the network has been explored and
declared, the music returns to its tonal starting point at m. 86.
This return to G (with its third, B♭) also marks, appropriately enough, the end of this first developmental section. Example 5.10 displays the beginning of a “Lyrical Middle Section” that, while not expanding the network in the same way Development I did, juxtaposes already-explored tonalities in new and musically significant ways.
Example 5.10. Measures 91–107

The example shows the brief bridge of fifth-related major triads that lingers on B♭ once more before moving to C centricity at m. 94, marking the beginning of the new section. This Lyrical Middle Section continues well past the end of the example to m. 126, but its approach is well represented by the first portion given here. Throughout, the violin presents a songlike melody\(^7\) punctuated by two- and three-chord gestures in the piano resembling authentic cadences.

As shown in the diagram of example 5.4 (and illustrated in example 5.10), the only pitch centers explored in the lyrical section are C and E, and this lean-textured music moves easily and smoothly between the two, as illustrated in mm. 100–04. In light of the pitch centers and tonal relationships explored thus far, how do these tonalities and the major-third distance between them reflect the rest of the movement? There are at least

\[^7\text{While tangential to the present discussion, it is interesting that this melody’s incipit bears a remarkable resemblance to one in *Appalachian Spring*. See, for instance, m. 79 of the ballet suite, or m. 653, where the same melody is reprised in C (the same tonality as this moment of the Violin Sonata).}\]
three ways in which this question can be answered, and the answers themselves interrelate in interesting ways.

The first and perhaps simplest answer is to point out that C and E have already been touched upon as pitch centers earlier in the movement. In this respite after the first development section, the music reminisces on two of the tonalities that were newly acquired in Development I before plunging ahead with additional tonal forays. Of course, this view of these pitch centers, considered in isolation, makes no comment on the relationship between C and E or its potential significance.

A second perspective, which links these tonalities to the rest of the movement as well as to each other, is the recognition that major third relationships have suggested a tonal subplot throughout the movement. We have seen G and D presented melodically alongside their major thirds in the movement’s opening bars, and mm. 51–57 accent the major third by its juxtaposition with the more-prominent minor third. Here, for the first time, the major-third relationship manifests itself as a pair of thematically linked pitch centers. Inasmuch as this lyrical section differs musically to such a great degree from its surrounding development sections, there is logic in assigning to it a contrasting—but not entirely alien—tonal element. In the context of this movement, that element is the major third.

The third way to evaluate C and E’s relevance to the rest of the movement is multi-faceted and builds upon the first two. When C was previously posited in m. 78, it was only presented unambiguously as a tonality for approximately four measures. It was then immediately subordinated to A in the melody of mm. 82–86 as its minor third. Its link with A was, certainly, its raison d’être in that context as the tonal network was being expanded upward (as shown in example 5.8). In the Lyrical Middle Section, however, A does not feature prominently. On the other hand, the lyrical section (which begins and ends in C) is immediately preceded and followed by the m. 21 theme featuring G (with its minor-third partner, B♭). Aside from E, the tonality with which C is placed side-by-side at
the music’s surface is therefore G. Further, the six authentic cadences in C major sprinkled throughout the lyrical section, three of which are shown in example 5.10, would seem to reinforce this potential association of C with G. By definition each cadence contains G major and C major triads in succession. Additionally, each one voices its ultimate C triad with G in the uppermost register, as if to emphasize the identity of G as C’s fifth. All this evidence points to the potential for regarding this C not as A’s minor third, but rather as G’s “fifth below.”

Such a perspective implies a further extension of the movement’s tonal network, as suggested in example 5.11.

```
E
 |
A — C
.
D (F)
 |
G — B♭
.
C
```

Example 5.11. C as G’s “fifth below”

C now appears at two stations in the network: as A’s minor third partner, and as the beginning of an extension downward by fifths from G/D focus. In the latter sense C’s appearance in juxtaposition with G in the lyrical section foreshadows later tonal
explorations in the movement. As subsequent analysis will show, the last half of the movement will carve out another replication of the network starting a fifth below G, reflecting the already-defined replication a fifth above D. By positing C in juxtaposition with G, this central section anticipates the tonal progress of the rest of the movement.

This use of C in the Lyrical Middle Section causes it to function as a telling musical homonym. In the first place, its association with E here recalls the ventures upward on the tonal network. At the same time it predicts the eventual extension of the network downward via its link with the G centricity surrounding the section and the G emphasis of the unconventional authentic cadences. By virtue of C’s association with both E and G at this central point in the movement, it is able to function as a fulcrum balancing the tonal events of the work thus far with those yet to happen. The Lyrical Middle Section’s thematic content echoes this tonal function inasmuch as it is unparalleled elsewhere in the movement. In contrast, the exposition, restatement, and development sections reflect one another in their repetitions of the m. 21 theme, the two-part contrapuntal melodies first appearing in m. 40, and the prologue music at the end of the entire movement. The lyrical section’s contextually significant use of C centricity alongside its uniquely characteristic melodic material thus helps to articulate the latent symmetry permeating this movement’s approach to centricity and form.

This symmetry’s latency is emphasized by the pitch centers of Development II. Rather than immediately beginning to map out the network a fifth below G/D, as suggested by the Lyrical Middle Section, Development II focuses upon various pitch centers already explored earlier in the movement, delaying the tonal balancing suggested

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8The Lyrical Middle Section indeed contains the movement’s midpoint, whether considered in terms of measures (which places the midpoint halfway through m. 120) or in terms of elapsed time in performance (which in many recordings places the midpoint somewhere in the last few phrases of the section). The lyrical section thus neatly balances the expository section and Development I, with the exploration of the “fifth above” the G/D focus, against Development II and the “Restatements” section and their impending exploration of the area a “fifth below” G/D.
by the Lyrical Middle Section. Example 5.4 shows that this section begins by superimposing a new melody over the m. 21 theme, which again serves as an ostinato. Following are a transition section that comes to use many triads that reflect earlier tonalities (though the transition itself does not itself project a clear tonal center), and a three-part canon emphasizing D centricity. Example 5.12 displays the beginning of Development II, while example 5.13 is drawn from the end of the transition as it leads into the D-centric canon.

Example 5.12 shows that Development II resumes the emphasis on the G-B♭ pairing that characterized the music at m. 86, just before the Lyrical Middle Section. The ostinato bass line is imitated at the fifth by the violin’s first entrance at m. 132.

Example 5.12. Measures 127–37 (beginning of Development II)

The first system of example 5.13, which is the end of the transition that began at m. 149, makes use of G-, A-, and B♭-major triads in the piano’s right hand (over an alternately consonant and dissonant bass line), all of which represent pitch centers already touched upon. The violin, meanwhile, toys with a pentatonic collection that seems to
stress C. Finally, the tonal uncertainty generated by these varying elements gives way at m.

165 to a D-centric melody in canon.

![Musical notation]

Example 5.13. Measures 160–69 (transition into three-part canon)

While some of Development II’s thematic material is new, we see that in every case its pitch centers and even its triadic references (when centricity is uncertain or absent as seen in mm. 160–64) are not. The downward extension of the network, forecasted by C’s association with G in the Lyrical Middle Section, is not here realized. This development section balances Development I in that it also repeats and varies significant thematic material, but the tonal balancing of the movement has not yet begun.

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9A possible exception might be the measures beginning at m. 173, which, as example 5.4 suggests, point to B for a few bars. If B is in fact perceived as a pitch center here, it can be reconciled to the present analysis by regarding it as a tentative extension of the network upward one more fifth from E. Such a perspective does not blur Development II’s avoidance of the tonal area below G on the network, which is the larger point of this part of the analysis.

10This thematic development permeates other parts of Development II not excerpted here. Such motivic transformations are both obvious and, given their frequently tonally ambiguous settings, of
Development II comes to a climactic crash at m. 193, followed by an unwinding of the crash’s tension at mm. 196. This unwinding segues into the “Restatements” section of the movement that begins at m. 201. This sequence of events is shown in example 5.14. The crash, which appears in the first three bars of example 5.14, earns its designation from its dissonant *sforzandi*. While the *sforzando* chords are hardly triadic, they feature E5 as their highest pitch. When coupled with the melodic Bs and G#s that lead to each chord, a focus on E as a pitch center weakly emerges, albeit mitigated by the other contradictory pitches of the chords.

The unwinding of this climax at *Poco allargando* (m. 196), which liquidates the crash’s intensity by relaxing the tempo and moving away from the extremes in register and volume, also dissipates the previous E centricity. The violin focuses on four pitch classes that can be reconciled as a D# minor seventh chord, though this is hardly reinforced by the two tetrachords on which the piano fixates. Even so, the violin comes to rest on A#, the fifth of D#, in m. 200, and when the Restatements section begins in m. 201 with the m. 21 theme in the piano, it does so with a D# major triad.11 The unwinding of mm. 196–200 also constitutes a transition from E to D# centricity, thus leading to the first new pitch center of the movement since C was introduced in m. 78—in Development I!

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11The violin’s first slur in m. 200 seems also to suggest the D# centricity. It is worth noting that the slurs shown in example 5.14 are derived from the published *violin part*, which differ from those shown in the piano part published with this violin part. The piano’s score places slurs over each pair of eighth notes in m. 200, obscuring this reference to the D# focus. Aaron Copland, Sonata for Violin and Piano, corrected(!) ed. (USA: Boosey & Hawkes, 1989).
The ramifications of the D♯ arrival are myriad, as shall be made clear. This pitch center should be considered in concert with the others that succeed it as the Restatements section continues. Example 5.15 shows this following music, picking up in m. 205 where example 5.14 ended.

This Restatements section thematically corresponds with mm. 21–50, but differs in tonally significant ways. At m. 205 the m. 21 theme is suddenly transposed so as to suggest C♯ centricity with a secondary emphasis on E (in much the same way that the
theme originally shaded G with its minor third partner, B♭. Then, the theme is altered slightly so as to land on a repeated E♯5—that is, 3 of C♯. Enharmonically reinterpreted as F, this pitch paves the way to a duplication of mm. 33–38 a major second lower (compare with example 5.1). The cadence of mm. 215–16 thus centers on C just as the analogous cadence in mm. 37–38 focused on D.

Example 5.15. Measures 205–28

Finally, the violin at m. 216 begins a repetition of this part of the expository section a whole step lower, but the piano’s contribution at m. 218 is not, as it was at the corresponding moment in m. 40, a second melody in counterpoint with the violin’s over a
m. 21-based ostinato. Instead the piano provides only an augmented version of the ostinato over a late-entering and slow-moving bass. The piano’s ostinato stresses F as a pitch center, just as the quicker ostinato at m. 40 emphasized G, while the violin melody considered alone focuses on C when analyzed in parallel to its previous appearances. An F/C ambiguity thus runs through mm. 218–24, reflecting the G/D ambiguity of mm. 40–50. The end of example 5.15 shows the return of the prologue music, which continues to the end of the movement.

The pitch centers of the Restatements section, also summarized in example 5.4, are (in order of appearance) D♯, C♯, C, F/C, and G/D. (The slashes reflect an ambiguity between fifth-related potential pitch centers as before.) Setting aside the C♯ for a moment, and knowing that G/D is the central focus of the whole movement, the remaining pitch centers can be arrayed onto the movement’s tonal network as shown in example 5.16.

![Tonal Network Diagram]

Example 5.16. The tonal network’s reflection in the Restatements section
C’s importance as G’s “fifth below” was already predicted in the Lyrical Middle Section, and it is privileged in the Restatements section as the only tonality emphasized by an authentic cadence. C is joined in the Restatements section by its fifth below, F, and its minor third partner, Eb (spelled here enharmonically as D#). The result of this concentration on C is that the Restatements’ replication of the original network is in fact an inversion of it. Were this extension of the original network a fifth below the G/D focus to duplicate it exactly, we would expect to find F joined by its fifth above and its minor third, Ab. Instead, the Restatements section presents a mirror image of the original network, balancing its previous upward extension in a delightfully unexpected way. In addition, this inversion of the original network’s elements is reflected by the ordering of its elements in the Restatements section—Eb, the minor third partner to C, is presented before C is posited in this section. This order of presentation inverts that of the expository section, where Bb (the original third partner) appeared in the context of an already prevailing G. The inversion of the original network thus parallels the “inversion” of the order of appearance of the minor-third related pitch centers.

The Restatements section provides tonal balance to the earlier exploration of pitch centers in the area a fifth above the G/D focus. The Lyrical Middle Section provided a “promissory C” in the region a fifth below G, and that promise is here realized even as the opening thematic materials are restated.

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12The composer appears to go out of his way to de-emphasize Ab in the Restatements section. The piano’s right-hand ostinato, a rhythmic augmentation of the original m. 21 melody, is truncated and repeated (at the ends of m. 219 and m. 221) just before reaching, via ascending perfect fourths, what at this transposition level would be A#. The only other tentative reference to Ab in the Restatements section is a melodic ascent by the violin through an Ab triad in the middle of a phrase in m. 213, but this is an almost unavoidable consequence of directly transposing the corresponding melody (containing a Bb reference) from m. 35 a whole step down. The light touch on Ab here furthers the mirror-imaging of the original network: if Ab were to be included as F’s minor-third partner at the bottom of example 5.16, it would be reflected in the original network by the F in parentheses (D’s minor third). Recall that, like Ab in the Restatements, F was itself only briefly touched upon in the expository section. These similar slight brushes with the “fourth corners” of each version of the tonal network thus reinforce the correspondence between them.
What of the C♯ centricity that appears briefly beginning at m. 204? While there is no reasonable way to reconcile it into the diagram of the movement’s tonal network, its presence creates a new association between the Restatements section and the Lyrical Middle Section. Consider example 5.17, which illuminates another set of minor-third relationships linking these sections.

![Diagram](C E D♯ C♯)

**Example 5.17. Minor thirds joining Lyrical Middle Section with Restatements**

The first two pitch centers of the Restatements section, D♯ and C♯, also stand together as the only two centers of this section to feature the m. 21 melody. By linking them to the C and E tonalities of the Lyrical Middle Section, they manifest the characteristic minor third partnering of this movement. We have already seen that C bears as its minor-third partner E♯, the enharmonic equivalent of D♯. This partnership was shown to be essential to the interior tonal organization of the Restatements, so the link between D♯ and C has precedent in this analysis. Conversely, the E of the Lyrical Middle Section is the minor third above the C♯ of the Restatements. The C–D♯ partnering is thus inverted in the E–C♯ partnering.

Example 5.16 summarizes the network of relationships governing the first movement’s tonal organization. Pitch centers—or pitch classes simultaneously vying for centricity—are musically associated with one another in pairs related by perfect fifth or minor third. As the movement proceeds, we find that the initial fifth and third relationships (those of G with D and G with B♯, respectively) are replicated at the distance of a perfect fifth away from those initial pitch centers. The movement ends, as shown in example 5.4, with a return to the prologue music and the G/D ambiguity characterizing
The remaining movements of the Violin Sonata continue both this focus on the initial G/D fifth and on perfect-fifth and minor-third relationships between pitch centers. The result of this continuing attention to the tonal concerns of the first movement is large-scale tonal coherence that cuts across the entire sonata.

**The Second Movement**

In comparison with the first movement of the Violin Sonata, the second movement is relatively brief and formally and tonally uncomplicated. It nevertheless embodies the perfect-fifth and minor-third concerns of the first movement, and in fact presents another manifestation of the earlier movement’s tonal network.

Example 5.18 lays out the thematic and tonal organization of the movement.¹⁴

<table>
<thead>
<tr>
<th>mm. 1–17</th>
<th>18</th>
<th>22</th>
<th>33</th>
<th>46</th>
<th>53–69</th>
</tr>
</thead>
<tbody>
<tr>
<td>chant</td>
<td>transition</td>
<td>waltz</td>
<td>waltz in canon</td>
<td>transition</td>
<td>chant</td>
</tr>
<tr>
<td>D/A</td>
<td>(D)</td>
<td>G</td>
<td>E</td>
<td>(D)</td>
<td>D/A</td>
</tr>
</tbody>
</table>

Example 5.18. Pitch centers and formal elements of the Violin Sonata, II

The curved lines at the top of the example show that this movement exhibits clear formal and tonal symmetry. Its formal design can be summarized as ABBA with similar transitions separating the A and B sections from one another. The only “flaw” in the

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¹³Chapter 2 included consideration of the first movement’s final chord as an embodiment of this G/D focus. See example 2.9 and the discussion accompanying it.

¹⁴Pollack does not address the form of this movement in his biography of Copland. The composer himself calls the Lento “a simple ABA form.” Copland and Perlis, *Copland since 1943*, 23.
palindrome of pitch centers is the reflection of G at m. 22 as E at m. 33; this will be taken up in the following analysis.

Like the first movement, the second opens with materials that concomitantly point to two potential pitch centers a perfect fifth apart. Example 5.19 shows the first section of this movement.

![Musical notation](image)

Example 5.19. Violin Sonata, II, mm. 1–18

In this case the piano presents a slow, chant-like melody over droning As in the left hand, and the melody itself comes to rest on A at the end of its first phrase in m. 4. The one-sharp diatonic collection employed here thus suggests the dorian mode. On the other hand, each phrase in the piano, as well as the first violin phrase, begins with D. More significantly, the section in m. 17 culminates with a D sustained among three

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15Measure 6 to this listener suggests a similar arrival on A at the phrase’s end. The right hand’s G in this bar decays for two long beats before the As are re-struck in the left hand. As a result, the G sounds as though it resolves modally to A (in a displaced octave) rather than continuing to be sustained over the As as they are repeated.
octaves of As. This sonority glides into the transition at m. 18, which begins with a familiar motive from the first movement now outlining a D-major triad. Considered together, mm. 17–18 seem to suggest that the first section ends by emphasizing D via a second-inversion triad (implied before it is literally present in the transition’s first measure). D and A strike a delicate balance in this opening section, just as G and D were balanced in the prologue of the first movement.

The reprise of this chant section at the end of the movement is altered in a few subtle ways, some of which gently bring greater focus to D. The violin begins the reprise at m. 53 by presenting the piano’s melody from m. 2; but of greater interest is that the piano is now sustaining octave Ds as pedal points (beginning at m. 52) rather than As. At m. 58 the texture reverts to reflect that of the original section, and the octaves on A return in reflection of m. 6. The very end of the movement is shown in example 5.20.

Example 5.20. Measures 63–69

The violin at m. 63 is displaced up an octave in comparison with m. 12, but of tonal import is the movement’s closing cadence, which brings focus to D centricity. Here, the octaves on A that made m. 17 tonally ambiguous are replaced by a quiet, widely-spaced D-major triad in root position. This final cadence contextualizes the violin’s modal-like close on A as the fifth of D and not, as it was previously, a competing potential pitch center.
The central waltz sections are joined by their sharing of a single melody. Example 5.21 shows both sections. The violin’s melody at m. 22 begins on G5, outlines E minor and G major triads, and then in m. 25 stagnates on G4. Following a short chromatic digression in mm. 26–27, it repeats its opening measures and ends this first waltz section with an oscillation between G and A in mm. 31–32. This melody’s emphasis on G is supported by certain elements of the piano part: the first harmony of m. 22 is an inverted dominant seventh of G, and the right hand “resolves” to an open fifth on G in the second half of the measure (over an admittedly incongruous F; in the bass). This harmonic gesture is repeated in m. 23, m. 26, m. 27, m. 29, and in mm. 31–32 as the violin moves back and forth between G and A. This first waltz section suggests that E might have some significance by beginning with an arpeggiation of its minor triad, but the melody comes to focus on G, reinforced by tonal aspects of its harmonic setting.\(^\text{16}\)

\(^{16}\)Considered another way, the piano’s sonorities in the first waltz section also reflect this work’s preoccupation with perfect fifths. The chords of m. 22 (repeated in m. 23), via their registral dispositions, might be regarded as D and G chords (a triad and an open fifth respectively) stratified over C and F. These four pitches can be readily arranged into a series of descending perfect fifths: D–G–C–F. The next note in this series, B♭, is represented by the piano’s B♭ major-seventh chord unfolded in m. 24. The superimposition of closed-position triads (or open fifths) over an incongruous bass note also echoes the texture and tonal approach of the first movement’s prologue.
Example 5.21. Measures 22–45 with preliminary analysis
The second waltz section, which starts at m. 33, presents the violin’s melody from m. 22 in a three-part canon: the piano’s right hand serves as the lead voice (with a lilting off-beat echo an octave lower), followed at the distance of a measure, more or less, by the violin and the left hand of the piano. While this texture contrasts from the first waltz section, its tonal orientation is also changed. As the piano’s left hand awaits its entrance with the theme at m. 35, it marks the time by sustaining Es in the piano’s lowest octave. This new underpinning of the melody lends weight to the E-minor triad with which it starts, allowing for the clear perception of E as a pitch center at the beginning of this section. By recontextualizing the waltz melody at the beginning of this section Copland is able to suggest a different pitch center from that which it originally suggested.

The recontextualization of the melody as a canon, however, does not allow for E centricity to continue through the second waltz section. Beginning at m. 37, the various voices of the canon move through the chromatic digression. The resulting dissonant, non-triadic harmonies dissipate any sense of pitch centricity; this brief abandonment of centricity combined with the crescendo leading through these measures generates the movement’s climax. Upon arriving at the other side of the chromatic digression the three voices perorate on G with upper and lower neighbors, recalling the G focus that characterized the first appearance of the waltz theme. E is emphasized at the beginning of the second waltz section, but that emphasis does not sustain itself for long, and the waltz sections end with the G centricity with which they began.

It is possible to link all the tonalities used in the second movement in a chain of perfect fifths, as shown in example 5.22. The thicker line connecting D to A represents the musical coupling of these fifth-related pitches in the first and last sections of the movement. Unlike G/D and A/E, D and A are directly juxtaposed in the musical surface, and that juxtaposition’s use in the music bookending the movement emphasizes this perfect-fifth association all the more.
Example 5.22. Perfect-fifth relationships among pitch centers of the second movement

One might say that D/A is the focus of this movement in a sense similar to that in which G/D served as the focus of the first movement. In both cases, the constituent pitch classes of the perfect fifth are cast in juxtaposition with one another in the beginning and ultimate sections of their movements, and the pitch centers explored in the movements’ interiors relate to this perfect fifth via perfect fifths (with the assistance of minor thirds). Moreover, the D/A focus of the second movement is itself a perfect-fifth transposition of the first movement’s G/D focus.¹⁷ The pairing of pitch centers a fifth apart, first seen in the opening and closing sections of these movements, is not only aligned with the tonal organization of the individual movements but also parallels the tonal logic linking the movements to one another.

The vertical lines connecting G to D and A to E in example 5.22 are potentially misleading—while they do join pitch centers of the second movement separated by perfect fifths, the constituent tonalities thus joined are not clearly paired in the surface of this movement. That is, there is no musical reason in this movement for linking G with D or A with E. On the other hand, E and G are clearly linked musically with one another

¹⁷The transposition of G/D to D/A in the second movement also obliquely suggests, in its transposition of tonality-defining elements up a perfect fifth, the common-practice tradition of contrasting a work’s main tonality with that of its dominant.
through their associations with the waltz theme and sections. This minor-third pairing is also, of course, in the spirit of the sonata’s first movement. In that movement, pitch centers musically linked to others a perfect fifth away also had the potential to bear a minor-third partner (e.g., G’s association first with D and then with B♭). Here, G and E have an unrealized potential to be musically linked by perfect fifths to D and A respectively, and are instead linked to one another, resulting in a minor-third partnership.

Representing succinctly in a diagram all the fifth and third relationships suggested by the second movement in two dimensions is problematic, but example 5.23 represents one attempt.

![Diagram of pitch centers](image)

**Example 5.23.** Thirds and fifth among pitch centers in the second movement

The curved lines of this example stand in for the vertical lines that connected G to D and A to E in example 5.22. In all previous representations of the tonal networks in the Violin Sonata, movement vertically on the network represented movement up or down by perfect fifth, and movement to the right represented movement up by minor third. In example 5.23, by contrast, the vertical perfect-fifth space is “bent” at the G/D and A/E junctures—since these fifths are not emphasized in the music of the movement—so as to illuminate the more salient minor-third relationship between E and G.

The approach to pitch centricity exhibited in the Violin Sonata’s second movement reflects the first movement’s preoccupation with perfect fifth and minor third relationships. In addition, the G/D focus of the first movement relates logically to the
D/A focus of the second inasmuch as the latter is a transposition of the former by the crucial interval of the perfect fifth. The foregoing analysis shows that these movements belong together tonally; put another way, the treatments of pitch centers and other elements of the music’s surface parallel the movement’s organization of pitch centers at the largest levels. The third movement, in reflection of its exuberant and buoyant character, expands upon the now-established tonal conventions of the first two movements before summarizing the sonata’s tonal endeavors in its coda.

The Third Movement

Howard Pollack convincingly describes the form of the Violin Sonata’s third movement as follows:

…a binary (or perhaps binary sonata) form (AA'). The movement’s first half successively states a scherzolike theme; a slower and more intimate melody; a fast, spirited tune; a short folklike interlude (over a static harmony); and a poignant closing theme.... The finale’s second half more or less recapitulates its first half, with the exception of the folklike section, an omission balanced by the unexpected reappearance of that episode’s sauntering accompaniment in the otherwise somber coda. This coda—a brief reprise of the work’s very opening—comes to rest on a stunning sonority involving harmonics in the violin and widely spaced intervals in the piano.\(^{18}\)

Example 5.24 parses the formal design of the finale after Pollack’s description. The arrows on the diagram show how four of the five sections of the A portion are indeed reprinted in A'. Pollack’s “folklike interlude” at m. 96 is replaced in A' by one more

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\(^{18}\) Pollack, *Aaron Copland: The Life and Work of an Uncommon Man*, 385. Pollack points out here that “annotators have interpreted [the form of this movement] variously”; to wit, Neil Butterworth describes it as “a modified rondo” and Julia Smith “a scherzo and trio.” Neither of these latter explanations accounts explicitly for the plentitude of returning themes in this finale, and the prose accompanying these claims operates in generalities too large to evaluate them fairly. Butterworth, *The Music of Aaron Copland*, 98; Smith, *Aaron Copland: His Work and Contribution to American Music*, 238.
statement of the movement’s opening scherzo theme, followed by a climactic stratification of the “spirited” theme over the scherzo in two-part imitation. The accompaniment for the m. 96 interlude returns in the finale’s coda, which will be examined below. As shown in this example, the apprehension of this movement’s form as A–A′–coda is largely supported by its specific thematic events, just as Pollack suggests.

On the other hand, Pollack’s brief summary of this movement does not take into account its pitch centers (also shown in example 5.24). By considering how the tonalities relate to one another, especially in light of the tonal concerns of the previous movements, it becomes clear that this finale shares the rest of the sonata’s preoccupation with tonal elements related in networks of perfect fifths. Simultaneously, the third movement provides a new variation on those tonal concerns: instead of accentuating minor-third relationships alongside those of perfect fifths, the finale places greater stress upon major-third partnerships together with perfect fifths. This emphasis of major-third associations was first suggested in the opening movement (via its Lyrical Middle Section, not to mention the violin’s very first melody) and is itself reflected in elements of the third movement’s musical surface. The following analysis examines the use of major-third and perfect-fifth connections to align this finale’s pitch centers with its own musical events and to link it with the preceding movements.
Example 5.24. Pitch centers and formal elements of the Violin Sonata, III
The significance of major-third connections to this finale is evoked by its first two
tonalities, G and B. Examples 5.25 and 5.26 present the incipits from the opening
sections that put forth these pitch centers.

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Example 5.25. Violin Sonata, III, mm. 1–13
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Both of these pitch centers are posited modally. The movement opens with a
strong focus on G. The piano begins the movement with repeated octaves on G, and the
violin spins out a virtuosic, cadenza-like meditation on the opening theme. This music
frequently stresses G and its “dominant,” D, with notated accents as well as prominent registral and metrical placements. The neutral key signature thus implies G mixolydian at first, though F♯ is replaced by F♯ starting at m. 26 (not shown in example 5.25). In any event, G centricity is retained until the next section begins at m. 42, shown in example 5.26.

The underscoring of B as a pitch center at m. 42 is less ardent. The section begins with a landing on a B-minor triad following the violin’s cascading, descending scale of sixteenth notes in the previous measure. The piano’s pulsing eighth-note accompaniment is rarely without the pitch class B, often coupled with D, its minor third above. Even so, the imitative melodies of the violin and the piano’s right hand rarely come to rest on B, and in fact include perfect fifths emphasizing other pitch classes along the way (e.g., G and D in m. 43, piano; F♯ and C♯ in mm. 44–45, piano; and D and A in m. 45, violin). This pandiatonic play, while still allowing for the apprehension of B aeolian, does take some emphasis away from B as a pitch center.19

When considered in combination with the lyrical, cantabile melodies of this section, this less forceful approach to pitch centricity allows this latter section to take on the character of a secondary thematic area that supplements the primary tonality, G. Though this movement hardly takes on the form of a sonata (as already described above), Copland has granted these opening two sections qualities reflecting those one might find in a traditional sonata-allegro form—an aggressive, marcato-like first theme followed by a soaring, slower-moving second theme. The sections’ respective approaches to pitch centricity reflects this dichotomy, thus suggesting (in addition to their temporal juxtaposition at the movement’s onset) that B might be regarded as a partner to G. In this

19Lest the reader think that tonal ambiguity at m. 42 is too rampant to suggest a pitch center at all in this section, it is worth noting that B centricity becomes gradually clearer following example 5.26. Indeed, by m. 61 the violin achieves a sort of stasis on fanfare-like B-major arpeggios while the piano accompanies with a quasi-ostinato pattern using only Bs and Ds.
way the significance of the major-third relationship is first established in this movement. We will see major thirds, and especially this G–B pairing, emerge as an essential element of the finale’s tonal organization.

Example 5.27 shows the first version of the “spirited” theme from mm. 76–84 as it centers on D.

![Example 5.27. Measures 76–84, violin only](image)

The melody itself places great emphasis on other members of the D-major triad before finally approaching D itself (via an ascending fourth from A) in m. 81. When this theme is coupled with the two-sharp diatonic collection and the piano’s accompaniment of ascending diatonic scales in displaced octaves (not shown in example 5.27), D centricity is unequivocal. The piano presents truncated versions of this melody beginning in m. 84 and m. 91, transposed to point to A and G respectively, as offbeat pedal points reinforce these tonics and the violin provides a softer obbligato built from fragments of the same theme.

In light of the preceding movements, it is easy to reconcile the use of D and A as pitch centers via perfect fifth links. After establishing its main tonality of G and the secondary importance of its major third, B, the finale reaches upward by fifths from its starting point (as in previous movements) to D and then to A. It then returns to G and remains there for the rest of the A portion of the movement’s form, which ends at m. 115. In analogy to the network maps used in discussion of the first two movements, example 5.28 maps the tonal forays of the finale thus far.
Example 5.28. Network of pitch centers used in the A part of the finale

In contrast to previous examples showing tonal networks in this sonata, this example plots major-third relationships, rather than minor thirds, along its horizontal axis. This adjustment reflects the finale’s concern with major thirds, which will become more crucial as the network grows to accommodate subsequent pitch centers. Another significant difference in the tonal structure of this movement is that it focuses on a single pitch center, G, rather than hinging upon a pairing of perfect-fifth related pitch centers (like G/D in the opening movement or D/A in the Lento). While we saw that the pitch class D is important in helping to establish G centricity at the finale’s opening, there is no sense in which D is vying with G for centricity at any point in this movement. Moreover, even a cursory glance at example 5.24 shows that G is by far the most oft-asserted tonality of the movement. D’s role in this movement is significant, as subsequent discussion will show, but its presence does not breed tonal ambiguity with G in the same ways that certain fifth relationships did earlier in the sonata. For this reason G and D are not joined by a thicker line in example 5.28.

The first large part of the finale thus charts out a network of tonalities related (familiarly) by perfect fifths and (innovatively) by one major third. How does the following A' part of this movement reflect and expand that network? A look at the beginning of this section helps to answer that question. Consider example 5.29. This example shows the end of the “poignant” slow theme, which also concludes the A portion of the movement
at m. 115. (Example 2.7 shows the complete reprise of this “poignant” theme in a slightly expanded version as it appears in mm. 208–16. The two manifestations of this section are otherwise very similar.) The “poignant” melody ends by repeatedly falling from B5 to G5 and then ascending via stepwise motion to B5 again. Meanwhile, the upper register of the piano ostinato pounds out Gs and Bs throughout the entire slow section. This emphasis on G and B is predictive of the impending change in tonality. After presenting Bs in the context of G centricity over and over again in this slow theme, the shift to B centricity at m. 115 takes on a magical quality. That major third relationship, first manifested in the initial tonalities of the movement, is here repeated thematically and as an accompaniment, thus heralding the next move away from G to B, leading to the beginning of the next large part of the work’s form.

As seen in example 5.29, B is established at m. 115 by the sustained octaves on that pitch class in combination with the return of the scherzo theme. Here, the piano presents a variation on the theme based on octave displacements, followed in mm. 118–121 with elaborations in violin and piano featuring melodic inversion, but this music’s identity as the scherzo cannot be mistaken. At m. 122 the violin takes up the octave-displacement version of the melody, but this time focused on G#, reinforced by the sustained G# octaves in the piano. The violin continues to toy with fragments of this melody (in G#) past the end of example 5.29 up to m. 136.

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20In fact, the only pitch center that ever directly follows G in this movement is B.
Example 5.29. Measures 112–25 (pitch centers indicated in parentheses)

The move from B to G♯ at m. 122 hearkens back to the minor-third relationships that proved crucial to the tonal structures of the sonata’s other movements. This minor-third shift has similar consequences for the internal organization of the finale’s A’ part. As example 5.24 shows, the next pitch centers following G♯ are C♯ (in a reprise of the “intimate” music at m. 136) and F♯ (marking the return of the “spirited” theme at m. 163). At m. 171 F♯ is abruptly upended by a final return to G, which maintains tonal supremacy to the end of the sonata. Putting aside this return to the “home key” of G, the
four new tonalities explored in the A' music form a chain of perfect fifths as shown in example 5.30a.

Example 5.30. New pitch centers of A' (a) arranged in consecutive perfect fifths and (b) arranged to emphasize the minor third G#/B

Of course, the connection between B and the rest of this perfect-fifth chain is not at all stressed by the music itself—B and F♯ are not linked as pitch centers in A'. On the other hand, the tonalities C♯ and F♯ are directly juxtaposed, as the thicker line connecting them in example 5.30a suggests. Example 5.31 shows that the seam between C♯ and F♯ centricity at m. 163 is smoothed by the violin’s continued decoration of C♯, occasionally reinforced an octave lower, even as the piano recapitulates the “spirited” theme in F♯.
Example 5.31. Measures 159–73 (pitch centers indicated in parentheses)

While B is not musically affiliated with F♯, it is tied to G♯ by virtue of these tonalities’ consecutive presentations of the scherzo theme at the beginning of A'. To better illustrate this minor-third association as it manifests itself musically, example 5.30b twists the vertical fifth-space of 5.30a so as to place G♯ and B side-by-side. This representation of the four new pitch centers of A' privileges the two pairings of tonalities made most salient by the music itself (G♯/B and C♯/F♯), while simultaneously illustrating that all four pitch centers can theoretically be arranged in the perfect-fifth chain B–F♯–C♯–G♯. The A’ part of the finale thus reflects previous movements’ preoccupation with perfect-fifth and
minor-third associations, even though it was the major-third association of B with G that
gave rise to this group of tonalities.

Example 5.32 shows that the A' pitch centers, and the set of musical affiliations
linking them with one another, has a deeper parallel with the pitch centers of the sonata’s
second movement. The left side of example 5.32 replicates example 5.23, which showed
the minor-third and perfect-fifth relationships among the four tonalities touched upon in
the second movement. The right side of example 5.32 duplicates example 5.30b.

![Movement II](image1.png)  ![Movement III, A' part](image2.png)

Example 5.32. Comparison of pitch-center networks between movement II and A' of
movement III

The two networks of tonalities shown in example 5.32 are isomorphic. That is, the
relationships among the four pitch centers of the sonata’s second movement are
duplicated in those of the A' portion of the finale. This is true both in an absolute
intervallic sense (i.e., in both cases the four pitch centers can arranged in pitch space as a
stack of perfect fifths, the top and bottom of notes of which are separated by a minor
third) and, more significantly, in the ways the pitch centers relate musically to one
another.\textsuperscript{21} In both networks the pitch centers related by minor third present in succession

\textsuperscript{21}Recall that, in all other pitch-center network mappings presented in this chapter, pitch centers
associated by ascending thirds are mapped visually from left to right. That convention is preserved here,
even though the pitch center representing the upper note of the third is presented before the lower note of
the third. Thus, in the Movement II network of example 5.32, G appears to E's right even though G
the same thematic material—the waltz in the second movement and the scherzo in the third. Meanwhile, the other pitch centers in each network are emphasized as a pair via other musical means (the D/A tonal ambiguity in the outer sections of the second movement and the eliding of C# into the beginning of F# centricity at m. 163 in the finale). In this case, at least, the finale is not merely reflecting the other movements’ fixations upon perfect-fifth and minor-third associations between pitch centers. Rather, the four tonalities explored in A’ (prior to the return to G) and the musical grouping of them into two pairs constitute a replica of the tonal organization characterizing the entire second movement. Finally, comparison of these networks illustrates another facet of the third movement’s emphasis upon major thirds, for this movement’s A’ network is itself a transposition of the movement II network up a major third.

The appearance of F# as a pitch center at m. 163 of the third movement creates another parallelism with the thematic content of the finale—this one with the G–B major-third pairing that has already been described. As example 5.24 shows, G and B are used at the onsets of A and A’ respectively to introduce the scherzo theme. The scherzo’s return at m. 115 after a prolonged absence is made that much more remarkable by its presentation in B, a major third away from its original pitch center. F# fulfills a similar role at m. 163 with relation to the “spirited” theme and its original presentation in D.

22It should be clear from the foregoing discussion that the networks used in this analysis differ as such from “K-nets” (Klumpenhouwer networks) and other similar transformational diagrams used in analyses by Henry Klumpenhouwer, David Lewin, and others. The networks employed in the present study are meant to connote specific qualities of relationships between elements (i.e., pitch centers), as manifested in the music itself, in addition to illustrating the intervals between them. Thus, the isomorphism displayed in example 5.32 relates not only to the fact that each network shows four elements related by the same intervallic distances, but also to the ways in which pairs of elements at analogous places on the networks are similarly emphasized by their musical presentations. For an introduction to K-nets, see David Lewin, “Klumpenhouwer Networks and Some Isographies that Involve Them,” Music Theory Spectrum 12, no. 1 (1990): 83–120.
The “spirited” melody was first introduced in D at m. 76 (before moving to A at m. 84 and then quickly back to the home key of G six bars later). In analogy to the scherzo’s reprise in A’ a major third higher than its first appearance, the spirited theme is cast at m.
163 in F♯—also a major third higher than its original manifestation. Example 5.33 illustrates this correspondence of themes and major third associations.

<table>
<thead>
<tr>
<th>scherzo:</th>
<th>A</th>
<th>A’</th>
</tr>
</thead>
<tbody>
<tr>
<td>“spirited”:</td>
<td>D</td>
<td>G</td>
</tr>
<tr>
<td>(m. 76)</td>
<td>M3</td>
<td>(m. 1)</td>
</tr>
<tr>
<td>(m. 76)</td>
<td>B</td>
<td>F♯</td>
</tr>
</tbody>
</table>

Example 5.33. Interactions of major-third related pitch centers with two themes

The presentation of these themes in G and D followed by their recapitulations in B and F♯ encapsulates this movement’s focus upon perfect-fifth and major-third links among pitch centers. In addition, it not only reflects the major third relationships emphasized by the violin’s first four notes of the entire sonata, but in fact duplicates the pitch content (D, F♯, B, G) of that opening motto. Later, the finale’s coda reminisces on the first movement’s introduction and begins with this same melody at the same transposition level. The organization of pitch centers in the finale certainly aligns with the tonalities and intervals stressed by tonal relationships in other movements in myriad ways.

Upon returning to G centricity at m. 172, the finale remains focused on G to its conclusion. Example 5.24 displays G’s maintenance through restatements of the scherzo and “poignant” themes as well as a climactic passage featuring the “spirited” theme superimposed on a canonic presentation of the scherzo. The movement’s coda, also centered on G, will be discussed below. The last shift in tonality, then, takes place at m. 172. This final change in centricity, shown in example 5.31, is also one of the most abrupt in the whole sonata. The C♯ that has characterized the violin part through much of the
prevailing F-sharp-centric music beginning at m. 163 is suddenly—and violently—juxtaposed with D at m. 171. The C#, which had represented 5 in the previous tonality, is summarily supplanted by D, which is immediately reconciled as 5 in the new tonality when the “spirited” theme begins again in G in m. 172. Meanwhile, Copland emphasizes the half-step clash between the competing 5s with *sforzando* indications, creating a sense of sudden upheaval between F# and G.

This accentuation of the juncture between F# and G makes sense in the context of the entire movement’s tonal structure, which can now be summarized as illustrated in example 5.34.

![Diagram of tonal relationships](image)

Example 5.34. The finale’s pitch centers and their relationships

The entire illustration can be viewed as an amalgamation of example 5.28 with examples 5.30a and 5.30b. The left column of tonalities in example 5.34 represents the three fifth-related pitch centers explored in the A portion of the finale’s form. To the right of G is B, its major-third partner and the first pitch center of A’. As A’ progresses, it gives rise to the rest of the example’s right-hand column of fifth-related tonalities. In this diagram, the straight vertical lines link pitch centers that are related by fifth and that share other commonalities in the context of the finale’s music, as described variously in the foregoing analysis. The horizontal lines do the same for major-third related pitch
centers. Finally, the example draws attention to two other interesting relationships between tonalities not involving perfect fifths or major thirds. First, a curved line connects B with G♯ in light of their sharing of the scherzo theme at the beginning of A'. This connection constitutes the finale’s largest-scale reference to the minor-third associations that typify the sonata’s other movements. Second, an arrow highlights the final tonal shift of the movement, yanking focus away from the “B-column” that characterized the preceding music of A' and returning to the finale’s starting point at the base of the “G-column” to close the work. The startling way in which F♯ is wrenched to G at m. 172 corresponds to the uniqueness of such a tonal shift in this movement’s context. Up to this point, A' has focused exclusively upon B and the series of perfect fifths above B as represented in the right-hand column of the network. It is remarkable, therefore, that the music abruptly shifts away from this group of fifth-related tonalities, via the only direct half-step relationship joining adjacent pitch centers, to land suddenly at the movement’s main tonality of G. The exceptional quality of this move to G, unmatched elsewhere in the movement, is reinforced by the brusque way in which it takes place at m. 171.

By juxtaposing tonal and thematic elements from the entire sonata, the coda crystallizes the entire composition’s thematic and tonal concerns. Example 5.35 presents this striking passage together with a note by the composer that accompanies the piano’s final sonority.

The coda’s opening theme references the D-F♯-B-G motto from the first movement’s prologue. Even without the explicit tempo marking, this connection to the first movement is unmistakable, creating a rhetorical frame to the whole work analogous to the prologue’s bookending of the first movement. Instead of the piano’s tonally ambiguous homophony from the prologue, the “sauntering” accompaniment to m. 96’s “folklike interlude” here reappears in mm. 218–23. This representation of the folklike section brings balance to the finale, as this was the only music not otherwise recapitulated in A'. In these ways the coda’s connection to the sonata’s previous music is obvious.
*Do not break the interval of the 10th in the right hand. If necessary, the bass note should be taken as a grace note, playing the G above the bass with the left thumb.

Example 5.35. Measures 217–30 (coda)

However, the coda also contains links with the previous music that become clear only in view of the tonal issues brought to light by the preceding analysis. The closing chord, for instance, is in one sense simply a root-position G-major triad—arguably the appropriate final sonority of a movement whose overall tonal focus is on G. On the other hand, the striking spacing and distribution of this chord’s members, already mentioned in Pollack’s brief analysis, can be seen to represent the fifth- and third-partnering that has proven crucial to the entire sonata. Above the piano’s G1, the violin is given a wide registral berth so it can present G uncluttered alongside its perfect fifth, D, manifested here as the twelfth G3/D5. The D5, which is most practically performed as a harmonic, takes on an additional quality of “belonging” to the G3—the wide interval and the
performance of both notes without vibrato causes the two pitches to blend almost as if the D5 were nothing more than an overtone of the G3.\textsuperscript{23} This final partnering of G with D symbolizes this sonata’s concern with fifths and specifically with this fifth.

Meanwhile, the piano’s right hand mimics the violin’s fifth-partnering in this chord with a similar coordination of G with its major third, B. G5 and B6 crown this sonority, isolating this dyad timbrally and registra] just as G3 and D5 are together isolated in the violin. This distribution thus privileges the major third G/B, which is only appropriate given the significance of the major third (indeed, this major third) to the finale’s tonal makeup. (Recall also how the importance of the major third was predicted in the first movement, and that B as G’s third—in relief to B♭—was suggested as early as the transition of m. 51 of the opening movement.) When the importance of the G/B association is realized, Copland’s detailed instructions (shown at the bottom of example 5.35) addressing pianists with smaller hands take on additional significance. These directions make explicit that G5 and B6 are to be struck simultaneously, even at the expense of playing the work’s final bass note earlier than the rest of the chord. The composer’s view of the upper G–B dyad as a single, indivisible unit only reinforces the significance that the pitch-center relationship represented by this dyad has held for the sonata’s tonal structure.

\textsuperscript{23}The G3 is normally the lowest note playable on a violin, and as an open string vibrato on this pitch is impossible. While Copland has not made an indication that the D5 is to be performed as a harmonic, performing this note by pressing down the D string at its midpoint (the only other possible way to execute this double-stop) while maintaining the specified \textit{pianissimo} dynamic is awkward at best. Meanwhile, the one possible advantage of pressing down the D string, the ability to vibrate on this pitch, is hardly useful when the \textit{other} note of the double-stop is an open string without vibrato. For these reasons, every violinist and recording I have consulted performs the D5 as a harmonic. My thanks go to Davis Brooks, Frank Felice, and the other string players (and \textit{performers} of this sonata) who have assisted in analyzing the performance issues surrounding this chord.
Example 5.36. Analysis of mm. 223–26 (violin only)

Example 5.36 dissects the coda’s final melody. The level of chromaticism in these measures is unusual for this work, but the harmonies thus suggested spin a web of associations in congruence with the tonal concerns of the entire sonata. First, this melody uses major thirds to generate a sequence: its second measure is a direct transposition of the first down a major third, and the third repeats the transposition while displacing the quarter notes up an octave. The melodic unit being sequenced is itself made up of what are, in this work’s context, familiar intervals: a perfect fifth, a minor third, and a perfect fourth (i.e., an inverted perfect fifth). In addition, each unit can be reconciled as a major seventh chord as noted on the example. These seventh chords’ roots themselves have held significance in the sonata. D, of course, is the perfect-fifth partner of G, as well as the main tonality of the second movement. F♯ is D’s major third, reflected in these pitch centers’ introductions of the “spirited” theme in the A’ and Λ sections respectively. B♭’s presence, meanwhile, recalls the G–B♭ minor-third pairing that was crucial to the first movement.

Finally, the melody concludes with a series of descending perfect fifths ending at B, which then falls a final major third to G. This chain of fifths anchored by B reflects the pitch centers newly explored in the A’ part of the finale—three of the four tonalities represented in the “B-column” of example 5.34 appear as pitches in this fifth series. The ultimate descending third from B to G has obvious parallels in light of the previous discussion; in fact, B–G is the closing gesture for each of the violin’s three melodic phrases in this coda.
The coda thus mirrors not only the tonal concerns of the finale but of the entire sonata. It casts in microcosm the pitch centers of greatest import to the work and the intervals between them. It constitutes a fitting close to the whole work by recapitulating, in a miniature fashion, some of its significant tonal and thematic elements.

**Synthesis of the Three Movements**

Having considered each of the Violin Sonata’s three movements individually, it is now possible to synthesize the tonal issues that cut across the entire work, showing how the movements tonally align with one another via recurring foci on specific pitch centers and via shared fixations upon specific kinds of relationships between pitch centers. Previous analysis has already highlighted some of the tonal commonalities linking these movements; this concluding section summarizes the resulting tonal structure of the complete work in light of that analysis.

<table>
<thead>
<tr>
<th>I.</th>
<th>II.</th>
<th>III.</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>A</td>
<td>G</td>
</tr>
<tr>
<td>G — (Bb)</td>
<td>(E — G)</td>
<td>(B)</td>
</tr>
</tbody>
</table>

Example 5.37. Tonal structure of the entire Violin Sonata

Example 5.37 represents the main pitch centers of the three movements with bold print and posits some connections between them. The first movement opens and closes with tonal ambiguity balancing G and D. Locally, this ambiguity suggested the potential for partnering tonalities related by perfect fifth, thus giving rise to the A/E and F/C
partnerships that extended this movement’s tonal structure upward and downward as shown in example 5.16. Nevertheless, the G/D ambiguity framing the entire movement remains unresolved at its conclusion.24 A view of the whole sonata shows that this ambiguity is worked out in subsequent movements. The Lento second movement takes up the D as its main pitch center, though that tonality is itself blurred in the movement’s vague outer sections by references to A centricity. The second movement’s tonal organization thus aligns with the first’s by taking up D as its focal point while, in analogy to the G/D issue of the opening movement, blurring that focus with another potential pitch center a fifth away. Meanwhile, the finale centers on G, the other pitch central to the first movement.

The third movement also makes use of fifth relationships, as already described (though not shown in example 5.37), but from a larger perspective works in consort with the other movements to replicate the Lento’s D/A resolution at the level of the entire sonata. After the second movement puts forth a D/A ambiguity in correlation to the first movement, and even leans towards A at first, it eventually settles on the lower note of this fifth, D, as its final and “main” pitch center. Similarly, the sonata itself begins with a G/D fifth ambiguity in the first movement, but eventually comes to rest on that fifth’s lower note, G, in the third movement, after giving some intermediate attention to D in the Lento. The notion of tonal ambiguity between fifth-related pitches that is eventually settled in favor of the lower note of the interval plays out at multiple levels in this work.

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24Interestingly, Pollack claims that each movement “ends with some variety of a quiet major triad” (Pollack, Aaron Copland: The Life and Work of an Uncommon Man, 383). This is arguably true, since the first movement’s final sonority could possibly be regarded as a G major triad with an added ninth (making it a “variety” of major triad). Even so, the present analysis shows how crucial it is to the sonata’s tonal structure to regard this last chord as embodying two potential pitch centers—G and D—rather than focusing simply on one, as any view of the chord as a major triad would imply. (This chord is shown as example 2.9; the accompanying discussion teases out the specific ways in which it points to both G and D.)
Tonal associations by third also recur throughout all three movements. Example 5.37 indicates some of the third relationships that have significance to the work’s tonal structure. The linking of B♭ to G in the first movement was the first inkling of the importance of minor-third connections, and this association is replicated at other pitch levels elsewhere in the movement. The associations between the four pitch centers touched upon in the Lento, involving a four-pitch chain of three perfect fifths but emphasizing the minor third between the chain’s endpoints (E and G), are replicated in the A′ section of the finale (as illustrated in example 5.32).

A second look at the initial emergence of B♭ in the context of G reveals that even this first minor-third partnership is also a result of a chain of three perfect fifths. Example 5.2 showed that the melody beginning at m. 21 treats B♭ as the endpoint of a series of overlapping major triads (G, C, F, B♭) that form a succession of descending perfect fifths. The melody subsequently moves at m. 28 from the B♭ triad directly back to its starting point, G, which is then sustained over a B♭ authentic cadence, firming up that association between G and B♭. The coordination of a minor-third pairing of pitch centers with a chain of four perfect-fifth-related pitch centers is thus embodied in the work’s very first minor-third association long before this nexus of relationships becomes the basis for the tonal structure of the entire Lento and the A′ section of the finale.

Example 5.37 also represents the structural role played by the major-third partnering of G and B in the last movement. A pairing of major-third related pitch centers first appeared in the opening movement’s Lyrical Middle Section; there, it constituted an anomaly among the movement’s more prevalent minor-third relationships. A view of the whole sonata demonstrates that the Lyrical Middle Section’s juxtaposition of tonalities linked by major third forecasts the eventual significance of this kind of relationship later in the work. (Recall also that major third/minor third dichotomy was first suggested in the transition at m. 51 of the first movement, where B♭ and B♮ were juxtaposed in the context of G centricity.) While the finale uses the major third G/B to
help define the two large parts of its binary form, the A' portion does make use of a
minor-third relationship to help generate its internal tonal organization. Just as the first
movement foreshadows the later significance granted to the major third, the finale
reminisces upon the minor third’s value to previous movements even as it embodies the
major third’s structural import. In light of these observations, the coda’s final reference to
B♭ in m. 224 before settling into G major—with a prominently featured major third—
becomes all the more evocative of the entire work’s tonal associations.

The Sonata for Violin and Piano exhibits similar tonal concerns and approaches
across all of its movements. All three movements’ pitch centers are organized and
juxtaposed so as to suggest the significance of grouping those pitch centers in pairs related
by perfect fifths, minor thirds, and major thirds. In addition, the individual movements
coalesce tonally via their foci on specific pitches as shown in the bold print and arrows of
example 5.37. The Lento and finale can thus be viewed as a “composing out” of the G/D
tonal ambiguity emphasized in the first movement. The gradual increase in emphasis of
major-third partnerships contrasted with the waning of minor-third partnerships lends an
additional sense of continuity across the entire piece. In various ways, the movements
replicate elements of one another’s tonal structures, but they also unite to create a larger-
level structure that aligns with its constituent parts. As much as any Copland work, the
Violin Sonata demonstrates how the traditional tonal relationships of the perfect fifth and
the third can be recast to generate a fresh, unprecedented approach to large-scale tonal
organization.
Chapter 6

*Quiet City*

**Background and Formal Overview**

The short instrumental work known as *Quiet City* had its genesis as incidental music to a now-lost Irwin Shaw play of the same name. Produced briefly by the Group Theatre in New York in 1939, the play dramatized the internal conflicts of a middle-aged businessman who long ago rejected his Jewish background and aspirations of becoming a poet. Copland’s music, originally scored for two clarinets (doubling on bass clarinet and saxophone), trumpet, and piano, seems to have been integral to the play’s construction. At many points the protagonist imagines his alter-ego brother’s trumpet playing in addition to “the night thoughts of many different people” in the city, all of which are meant to be represented musically as they re-awaken the businessman’s youthful dreams and idealism.1

Shaw’s play closed after only a handful of performances, and in 1940 Copland assembled materials from his music (“roughly corresponding” to the original work’s prologue, according to Pollack2) into a single-movement work for English horn, trumpet, and strings. Formally, *Quiet City* is a series of interconnected episodes. Pollack goes so far as to describe it as a “suite,” though its constituent parts are continuous in performance. It is readily apprehended in seven sections, the last two of which roughly mirror the first two, thus suggesting the formal scheme A–B–C–D–E–B′–A′. Example 6.1 divides the piece into these seven sections. The formal indications in quotation marks correspond to

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2Ibid.
descriptive labels provided by Pollack for each section. He catalogues them in a two-paragraph formal analysis as an “urban pastoral” evoking “the quiet city at night,” a “songful, expressive melody” suggesting the play’s protagonist’s “nostalgia for his youthful aspirations” (m. 33), “another lyrical section… accompanied by a restless dotted-note figure” (m. 73), a “dirge” introduced “by a brief and strong duet” (m. 95), a “stunning recapitulation of the nostalgia theme” (Pollack here conflates the work’s climax with the subsequent return of the theme in question; that theme is restated at m. 134), and a return to the “opening city music” (m. 150).3

By considering each of these sections in succession and their individual (indeed, divergent) approaches to pitch centricity, it will become clear that the sections are unified through a large-scale tonal structure based on a preoccupation with pentatonic collections. That structure is first suggested by the pitch content of Quiet City’s opening measures and is reflected in the most significant tonalities explored in each subsequent section. In addition, the following analysis will follow a tonal “problem” that emerges in the second and third sections of the piece and that is worked out in the composition’s climax. The impact of that problem on the structure of the work, as well as that structure itself, is best elucidated by examining the piece’s individual sections in the order in which they are heard in performance. After considering the tonal issues of each section in turn, it will be possible to describe the multiple levels of pentatonicism that allow this work to cohere tonally and to consider the impact of the tonal problem on the structure of the entire piece.

3Ibid., 331–32.
<table>
<thead>
<tr>
<th></th>
<th>&quot;urban pastoral&quot;</th>
<th>&quot;nostalgia&quot;</th>
<th>“dotted-note figure”</th>
<th>“dirge”</th>
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<tbody>
<tr>
<td></td>
<td>C — F</td>
<td>G</td>
<td>C/Eb</td>
<td>D</td>
</tr>
<tr>
<td>m. 1</td>
<td>13</td>
<td>33</td>
<td>73</td>
<td>95</td>
</tr>
<tr>
<td>{B♭–C–D–F–G}</td>
<td>trumpet ad lib.</td>
<td>English horn introduces theme</td>
<td>ambiguous triplet melody</td>
<td>“brief and strong duet”</td>
</tr>
<tr>
<td>X</td>
<td>C</td>
<td>G</td>
<td>C</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>X (B? A? G?)</td>
<td>G</td>
<td>E</td>
<td>Eb? … G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C/Eb</td>
<td>Eb? … A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>D</td>
<td>E</td>
<td>D</td>
<td></td>
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**climax**

<table>
<thead>
<tr>
<th></th>
<th>“nostalgia”</th>
<th>“urban pastoral”</th>
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<tbody>
<tr>
<td></td>
<td>B♭</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>120</td>
<td>123</td>
</tr>
<tr>
<td></td>
<td>4–3–1 ambiguity</td>
<td>imitation at fourth</td>
</tr>
</tbody>
</table>

“X” indicates tonal ambiguity. “*” indicates a special correspondence between mm. 25–26 and the climactic section (see discussion).

NB: The dotted bar lines following m. 159 are regarded as beginning individually numbered measures. This contrasts with the parallel music at m. 21, where the dotted bar lines appear only in the trumpet part and are therefore numbered as a single “measure.”

Example 6.1. Formal elements and pitch centers of *Quiet City*
The Opening “Urban Pastoral”

Like the Violin Sonata, *Quiet City* begins with a tonal ambiguity that has consequences for the structure of the entire work. Example 6.2 shows that the piece’s opening hinges on a single pentatonic collection: {B♭–C–D–F–G}. However, no one member of this collection emerges as tonally supreme in the first twelve measures. The first two bars seem to point to F as a tonic with C as its fifth, but m. 3 immediately thwarts that impression with a widely-spaced sonority introducing D and G. This is answered below by a descending fifth to B♭ which immediately falls further to G. Lest the listener have an opportunity to apprehend the strings as unfolding a G minor seventh chord, the English horn enters in m. 5 on an incongruous C, eliding a restart of the melodic/harmonic pattern that began the piece. At m. 8 the tonal ambiguity is reflected with a sort of timbral inconsistency: the lower strings here resort to *pizzicati* that disturb the slow-moving legato phrases above. All the while, the five pitch classes of the pentatonic collection are carefully controlled so that no one of them can clearly assert itself as a pitch center.

\*Just as modes represent the ways in which any member of a diatonic collection can be asserted as a tonic given the right musical circumstances, any member of a pentatonic collection can serve as a tonic if stressed as such. Copland exploits this property throughout *Quiet City*. This discussion will consistently indicate pentatonic collections ordered as “major pentatonic scales,” i.e., \{1–2–3–5–6\} from a major scale, but that ordering is meant only to assist the reader in quickly orienting to the collection being invoked. The braces surrounding the pitch classes involved serve as a reminder that this collection is conceptually unordered, and that any one—or none—of its members serve as tonic at a given moment.
Example 6.2. *Quiet City*, mm. 1–21

This opening on a tonally ambiguous pentatonic collection is significant because the collection serves as the source for all the structural pitch centers of the entire work. The second row of example 6.1 shows the most significant pitch center(s) of each section of *Quiet City*. With the exception of the climactic section, which constitutes a special case
to be explored below, the main tonalities of each section are also members of the \{B♭–C–D–F–G\} collection emphasized in these first few measures. Further, the collection (abstracted to include its transpositions) is employed to construct individual sonorities throughout the work, as in this introductory measures. Finally, the pitch centers touched upon in a given section themselves form a pentatonic collection or a subset thereof. Pentatonicism thus governs this work at several levels, and the specific pentatonic collection that opens it is aligned with the most important pitch centers throughout the rest of the composition. While *Quiet City*’s first and last tonalities are both C, providing an additional sense of tonal unity, the ambiguous employment of this pentatonic collection at the work’s opening suggests that this composition is not so much “about” departure from and return to C, but about the unfurling of a single pentatonic collection across the piece.

The opening tonal uncertainty dissolves at m. 13. The strings converge here on C in several octaves. Also at m. 14 the trumpet enters with a repeated-note declamation on C (vaguely suggesting Jewish liturgical chant). After oscillating between C and its lower neighbor, B♭, in mm. 14–20, the trumpet launches into a cadenza-like recitation in m. 21. Example 6.3 shows that this solo makes allusions to several emblems of this work and focuses briefly on G before returning to unequivocal C centricity at its conclusion.

Example 6.3. Analysis of m. 21, trumpet part

Measure 21 begins with the first minor-second related pair of pitches heard thus far, C and B, before falling to G. These first three notes, C, B♭, and G, obliquely suggest \( \hat{4} \hat{3} \hat{1} \) in G major. This suggestion is reinforced by the melody’s subsequent emphasis of G, though the true importance of this \( \hat{4} \hat{3} \hat{1} \) pattern will become clear as it reappears.
throughout the work. The melody next arpeggiates an incomplete seventh chord on G.
Regarded in light of the B♭ just before, this might be apprehended as V in C; however, the B♭ is immediately exchanged for B♭ in the complete G minor seventh chord that follows. The trumpet comes to rest on G, subtly increasing that pitch’s emphasis and further hinting that it might be regarded as a tonic. The last phrase of m. 21 moves quickly through the G minor seventh chord and into a C major triad, and returns focus to C centricity by lingering on the descending perfect fifth from G to C. To this listener, the trumpet seems to turn briefly to a modally-inflected G centricity and then to come back to C just as the English horn takes up the repeated-note incantation on C in the next measure (see example 6.4 below). In any case, the main significance of this recitative to the rest of the work is its introduction of the ♮4 ♮3 ♮1 motive and its reflection of the pentatonic concerns of the entire urban pastoral.

Example 6.4 shows the measures following the trumpet recitative, which feature a move to F centricity as well as some noteworthy chromaticism. The trumpet’s first presentation of this repeated-note theme in m. 14 was accompanied by C octaves, while here the English horn is supported by more complex sonorities in the strings. Nevertheless, those chords continue the previous preoccupation with the {B♭ C D F G} collection until m. 25. A startling shift from this collection occurs in mm. 25–26: taken together, the five pitch classes presented in these two bars form the pentatonic collection {G♭ A♭ B♭ D♭ E♭}. This “foreign” collection quickly dissipates, and the English horn arrives together with the strings on the pitch class F in m. 27. The result of mm. 22–27 is a move from C centricity (in analogy with m. 14) to F centricity. The English horn by m. 27 has outlined ♮5 ♮4 ♮3 ♮1 in F “minor” and its landing on F is reinforced in several octaves by the strings. The trumpet’s subsequent entrance on C over the sustained Fs is thus re-contextualized to suggest ♮5 in F, and this emphasis on F and the repeated-note theme continues unabated to the end of the urban pastoral a few measures later.
The \{Gb–Ab–B♭–Db–Eb\} collection of mm. 25–26 has ramifications beyond its mere reflection of its surrounding pentatonicism. As already seen in example 6.1, the collection \{B♭–C–D–F–G\} governing the opening pastoral is also the source of the main pitch centers of the following sections of *Quiet City*. The only exception to this correspondence is the climactic section of mm. 120–133. The details of the climax’s internal tonal organization appear in the analysis below, but it can be described in summary as touching quickly upon five different potential pitch centers. What is striking is that the pitch content of mm. 25–26 forecasts each of the climax’s pitch centers; that is, the climax’s fourteen measures suggest at different points centricity on each pitch of the \{Gb–Ab–B♭–Db–Eb\} collection. The opening urban pastoral thus forecasts not only the most significant tonalities of each subsequent section (via the \{B♭–C–D–F–G\} collection)
but also predicts the climax’s invocation of the \{G♭–A♭–B♭–D♭–E♭\} collection as a source for potential tonalities.

**The First “Nostalgia” Section**

Even as the first section of *Quiet City* presents in microcosm the tonal concerns of the entire work, it also begins the process of introducing the pitch centers of the \{B♭–C–D–F–G\} collection. C and F are the most emphasized pitch centers of the first “urban pastoral,” while G is suggested in a secondary way by the trumpet solo of m. 21. G subsequently becomes the main tonality of the following nostalgia section, though it is not established as such until this section is well underway. Example 6.5 shows the opening of the nostalgia music.

The English horn theme that begins this section is an epitome of tonal uncertainty. Via different criteria, it seems to suggest as possible pitch centers A (its first pitch is A, m. 35 includes a \(\hat{4}–\hat{3}–\hat{1}\) motive ending on A, and m. 37 gives A weight by repetition), B (an upward octave leap ends with a sustained B in m. 34 and the English horn concludes with a seven-beat B in mm. 38–39), and G (mm. 34–35 include a perfect-fifth leap from G to D in mm. 34–35 and the second phrase ends on a sustained G in m. 36). This melody also blurs the previous reliance upon pentatonicism—it makes exclusive use of the two-sharp diatonic collection. The four-note accompanying chord in the strings, B–A–D–E, is a subset of this diatonic collection as well as of two pentatonic collections: \{D–E–F♯–A–B\} and \{G–A–B–D–E\}. 
Example 6.5. Measures 33–54

The trumpet’s response to the English horn beginning in m. 40 gradually clears away the preceding tonal ambiguity and simultaneously places it in context. The trumpet’s melody begins with a varied repetition of the English horn’s three phrases (the similar first and third phrases are now made equivalent, and the second phrase’s $\hat{4} \rightarrow \hat{3} \rightarrow \hat{1}$ motive is replaced with $\hat{5} \rightarrow \hat{3} \rightarrow \hat{1}$ in m. 42, momentarily giving more stress to A). At m. 46
the trumpet spins out a new extension to the English horn’s original theme, dissolving the
tonal uncertainties up to this point. The trumpet cries out with an arresting G5, marked
_forte_ and approached as the root of a major triad. The strings answer in m. 49 with a
three-chord cadential gesture also emphasizing G in its outer registers. In addition to
bringing clear centricity to this section, the trumpet’s new extension (beginning at _più forte_
in m. 46) makes exclusive use of a single pentatonic collection, sounding at least once
every note of \{G–A–B–D–E\}.

This emphasis of G centricity continues past m. 49. The trumpet in mm. 50–54
resorts to the one-sharp diatonic collection to create a somewhat more conjunct melody.
In fact, this melody is derived from the \(\hat{4}_3\hat{1}\) motive in a way that illustrates its own
potential tonal ambiguity. The gesture G–F♯–D of m. 51 is readily apprehended as \(\hat{1}_7\hat{5}\)
in G, but given a different musical context might easily imply \(\hat{4}_3\hat{1}\) in D. In m. 52 this
intervallic pattern is repeated as C–B–G, which represents the \(\hat{4}_3\hat{1}\) motive in the
prevailing G centricity; but C–B–G could also be perceived as \(\hat{1}_7\hat{5}\) in C were there
other musical parameters supporting such an interpretation. While this pattern of
descending half-step/descending major third has little consequence locally on the strong
assertion of G as a pitch center, the ambiguity latent in this motive is emphasized later in
_Quiet City_. In any event, the trumpet’s melody ends in mm. 52–54 with an ascending
perfect fifth from G to D that is answered by a near-repetition of the strings’ cadence
from m. 49.

The strings’ chords in mm. 49–51 and mm. 53–55 are each subsets of pentatonic
collections, but consecutive chords are not derived from the _same_ collection. Example 6.6
parses the pitch content of each chord in mm. 49–51.⁵

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⁵An analysis of the strings’ chords in mm. 54–55 would achieve identical results. The first beat of
mm. 54 uses a different bass note, but is still a subset of the same collection as that of the first chord in m. 49.
Measures 55–57, not shown in example 6.5, uses the same sustained chord as mm. 50–51 (see example 6.7.)
Each chord is represented in the example in its original voicing as read from bottom to top (notwithstanding the octave doublings of ’cellos and basses). The bottom row illustrates the pentatonic collections of which each chord is a subset. Parentheses denote members of each collection not appearing in the corresponding subset chord. The collections in bold are those that seem most closely related in this musical context to the individual chords.\(^6\) This analysis highlights some striking features of this chord series. First, the only common tones shared by the pentatonic collections in example 6.6 are G, the current tonic, and D, its fifth. In fact, G and D both appear in every chord, thus lending further emphasis to G as a pitch center. In addition, the two different collections of m. 49 reflect the tonal organization of *Quiet City’s* first two sections: \{(B\#–C–D–F–G)\} was the basis of the urban pastoral, even though only two (or, arguably, three) of its members were posited as pitch centers in that section. The collection \{G–A–B–D–E\}, meanwhile, accounts for the three competing potential pitch centers from the nostalgia section’s opening, the current pitch center, G, and even the D that was ambiguously

\(^6\)In light of the explicit statement of \{G–A–B–D–E\} in the preceding trumpet phrase, this collection is selected as the probable progenitor of m. 49, beat one. Beat three comes across as a “return” to the source of beat one after the interruption of \{B\#–C–D–F–G\} in beat two; this view is supported by the melodic oscillation back to G4 from B\#4. The selection at m. 50 of \{C–D–E–G–A\} over \{F–G–A–C–D\} has little impact on the present analysis, but in any event is suggested by the principal of parsimony—only the half-step alteration of B to C is necessary to transform the preceding \{G–A–B–D–E\} into \{C–D–E–G–A\}, while \{F–G–A–C–D\} has F as an additional new note (one that is not even literally present in the chord of m. 50).
suggested by the $\hat{4} \hat{3} \hat{1}$ in m. 51. The only member of this collection not already
touched upon as a (potential) pitch center in the nostalgia section is E. In fact, E will be
posed as a tonality near the end of this section. The strings’ brief oscillations between
\{G–A–B–D–E\} and \{B♭–C–D–F–G\} thus reflect the tonal concerns of the work thus far,
and all four chords together signal the local prominence of G.

Example 6.7 catalogs the remaining pitch centers and appearances of the $\hat{4} \hat{3} \hat{1}$
motive in this nostalgia section. This example displays pitch centers in parentheses as they
are established. The English horn twice sounds the $\hat{4} \hat{3} \hat{1}$ motive in mm. 55–57,
following it both times with a leap from G to D to reaffirm the prevailing G centricity.
The English horn’s triplet melody beginning at m. 57 is reminiscent of the trumpet’s
theme at mm. 50–51, replicating the momentary ambiguity created by transposing the $\hat{4} \hat{3} \hat{1}$
tervalllic pattern to begin on G, tacitly implying $\hat{4} \hat{3} \hat{1}$ in D. The triplets next
meander to a landing on E in m. 59 that lasts two measures and is echoed twice in m. 62
and m. 64. The strings’ response in mm. 60–64 to this emphasis on E features a shift to a
two-sharp diatonic collection from the one-sharp collection that has been in effect since G
was first established. The three chords of mm. 60–61 are all subsets of the \{A–B–C♯–E–
F♯\} collection and the sustained chord in the next three measures belongs to \{G–A–B–D–
E\}. These collections are themselves subsets of the two-sharp diatonic collection, and
both happen to include the E being melodically sustained and repeated alongside these
chords. Even though the first three string chords contain F♯-minor triads in their upper
voices, the English horn’s sustained E and the answering Es in mm. 62–64 allow E to be
readily perceived as the pitch center here. The change in centricity from G to E is
reflected in the simultaneous change of diatonic collection.

\footnote{Recall also that this collection was first introduced by the same trumpet phrase that brought tonal
certainty to this section starting in m. 46. The structural role played by this collection is emphasized by its
simultaneous presentation with the structural pitch center of this section.}

\footnote{This shift is presaged by the English horn’s C♯ in m. 59.}
The new E centricity is summarily disrupted at m. 65. In analogy to mm. 50–51 and mm. 57–58, one might expect the trumpet to proceed as shown in the top line of example 6.8, thereby preserving the prevailing diatonic collection and E as tonic.
Example 6.8. Re-composition of mm. 64–65 compared with Copland’s version

Instead, Copland abruptly shifts out of the two-sharp collection at the downbeat of m. 56, and the first intervalllic pattern of this measure suggests $\hat{4} \hat{3} \hat{1}$ in Eb. Eb’s establishment as a certain tonic is itself impacted by the trumpet’s continuation: perfect-fourth leaps between Bb and F, G and C, and C and F in mm. 65–67 cloud the potential for regarding Eb as a pitch center. The three-flat diatonic collection being invoked is also not entirely certain until the strings’ entrance under the trumpet’s sustained F in m. 67; whether this collection would make use of Db or D# was not certain until this point. After repeating the melodic emphasis on F in m. 69 (a repetition that further clouds any potential for Eb centricity), the trumpet exits the three-flat collection by introducing A# in m. 70 and finally comes to rest on G. As much as anything else in this passage, this monophonic arrival on G might imply a momentary modal emphasis on that pitch class, thus recalling this nostalgia section’s main pitch center before beginning the next section of the work.

Measures 65–72 thus obliquely hint at Eb’s potential as a new tonic via the $\hat{4} \hat{3} \hat{1}$ motive, reinforced by the three-flat collection, but that potential is never completely realized. This is appropriate: Eb is a “foreigner” here, as it is not a member of the {G–A–B–D–E} collection that governs the pitch centers suggested through the rest of the nostalgia section. Eb is further unknown to {Bb–C–D–F–G}, which generates the main tonalities of each section throughout *Quiet City*. Its status as an outsider to this latter
collection is emphasized in this very passage. The strings’ chord of m. 67 is the first such full-voiced harmony in the entire section that is not a subset of some pentatonic collection. Taken together with the following chord in m. 68, though, these sonorities reflect the work’s main collection \{B♭–C–D–F–G\} with one added note. That added note is, of course, E♭. The role of E♭ in the tonal structure of Quiet City remains an enigma at this point in the piece. Its presence here represents a tonal problem that will require attention and resolution as the work continues.

The “Dotted-Note Figure” Section

The trumpet’s ultimate G of the first nostalgia section is elided with the opening of what Pollack calls a “lyrical section… accompanied by a restless dotted-note figure” as shown in example 6.9. Regardless of whether or not one perceives a brief moment of G centricity at m. 72 (as described above), the trumpet’s G is subsumed as $\frac{5}{3}$ in the C-minorish music that follows at m. 73. The violins begin by emphasizing C and its minor third, E♭, and the first sonority of this section is a second-inversion C-minor triad. From this starting point, the individual string voices move by step through the three-flat collection until the second half of m. 74. A B♭ is introduced at this point, producing an unusual sonority in Copland’s harmonic vocabulary: a diminished seventh chord. Spelled enharmonically, this chord might function traditionally as vii$^{67}$ in C, though its resolution to a C-minor seventh chord at the beginning of m. 75 is hardly traditional. Interestingly, an enharmonic respelling of the fully diminished seventh would also allow it to be apprehended as vii$^{67}$ in E♭ (i.e., D–F–Ab–C♭); the subsequent C-minor seventh chord contains as a subset the E♭-major triad to which such a chord would be expected to resolve. In a sense, then, this diminished seventh chord resolves to both C and E♭.9

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9Against the strings’ diminished seventh chord the English horn ascends a minor seventh from G to F, which in a more-typically functional context would imply a dominant function chord in C. That the F
Example 6.9. Measures 72–81 (opening of the “dotted-note figure” section)

From this moment through much of example 6.9 there exists some tonal ambiguity between C and Eb. The strings’ melodies are harmonized in parallel thirds, so that the agogic emphasis placed on Eb in mm. 78–79 is mitigated by its support with C below (reinforced by one or another wind instrument) and by an incongruous B♭ or F in the lowest register. Moreover, the texture of this passage is thick, especially after the dotted rhythms are abandoned at m. 77. It is not uncommon for five different pitch

leads to G at m. 75 before “resolving” to Eb lends a further facet to the ambiguity of this potentially functional moment emphasizing C and Eb concomitantly.
classes from the three-flat collection to sound simultaneously at any given moment in this passage, contributing to a pandiatonic haze from which no pitch class has an opportunity to emerge and clearly govern the music. This listener is left with a vague sense that Eb and C seem important in these measures, perhaps in part because of their somewhat clearer emphasis at the section’s opening a few measures earlier. To say that this music is “in” Eb and/or C beginning at about m. 76, however, is not reflective of how it is perceived.

That ambiguity clears at m. 81 as the English horn sinks to G and the opening dotted-note figure begins anew, emphasizing C. The music that follows, beginning at this return of clearer C centricity at m. 81, is a slightly shortened and varied repeat of mm. 73–80; its tonal issues are the same as those of the beginning of the section. This reprise ends at m. 87.

The tonal focus of this section of *Quiet City* might be best summarized as centered on C with Eb competing for attention, though at times the music’s surface minimizes any sense of pitch centricity. Just as in the previous nostalgia section, Eb again muddies the tonal waters. Its previous appearance was simply incongruous with the pentatonic collection generating all the other potential tonalities of the nostalgia section. Here, its hazy emergence in this section’s opening bars gives rise to the thick pandiatonicism that does not put forth any clear pitch center. It comes as no surprise, then, when the vaguely Eb-focused triplet melody from mm. 65–72 is reprised at the end of this dotted-note section beginning at m. 88. Example 6.10 illustrates. This variation of the triplet melody still begins with \(4\) 3 1 in Eb while again using numerous perfect fourths and a sustained F to avoid unequivocally positing Eb as a pitch center. The two punctuating string chords in mm. 89–91 are subsets of \{B♭–C–D–F–G\} and \{A♭–B♭–C–Eb–F\} respectively. The first collection is familiar as the progenitor of *Quiet City*’s structural pitch centers, and taken

\[10\] This view corresponds neatly with the opening dotted-note motive of the section, which in its opening measure stresses C but touches on the competing Eb.
together these collections complete the three-flat diatonic collection that has pervaded this section. The trumpet makes one more reference to Eb with a triadic outline in m. 93 before settling on A in m. 94. For a moment A appears to function as a new tonic, approached modally—much like G in mm. 71–72—and sustained unaccompanied for an entire measure. Like G before, though, it is subsumed as \(^\wedge\) of D as the dirge section starts at m. 95.

\[
(E_b? ^\wedge 4-3-1) \\
(A = D; ^\wedge 5) \\
\text{Slower (} j = 80 \text{) (in 4)}
\]

Example 6.10. Measures 87–99 with analytic notes

Eb’s role in the dotted-note section is stronger than that in the previous nostalgia section. In both cases, the triplet melody ends the section with ambiguous shades of Eb centricity before turning forward to the tonality of the next section. Throughout the later dotted-note section, however, Eb also competed for tonal supremacy, giving rise to the
hazy pandiatonicism pervading this section. Eb’s attempts at prominence increase as the work continues, helping to create a tonal impetus for its eventual climax.

The “Dirge” Section

Pollack’s designation of the beginning of the dirge section at m. 95 as a “brief and strong duet” may derive in part from its conclusion with a cadential gesture on a D/A open fifth in m. 99 (see example 6.10). The violas’ octave leaps featuring D and this cadence make D centricity clear.

The dirge itself is established as an ostinato-like pattern beginning at m. 100. It features a continuously-varied preoccupation with D, E, and A in its bass for fourteen measures (with the unremarkable exception of a lone G that appears in m. 108). The focus on these three pitches is prophetic, as they come to be the most emphasized notes of the whole dirge section. Example 6.11 shows the dirge pattern accompanying the return of the duet theme in the English horn at m. 105. The theme is here transposed and transformed to suggest E centricity, which the dirge accompaniment vaguely supports with E-minor triads in m. 105 and m. 108. However, in comparison to the section’s opening (and closing) D centricity, this attention to E as a pitch center is relatively weak, contributing to a view of D as the dirge section’s most structural tonality.
In fact, the music begins almost immediately to turn back to D. The one-sharp collection is gradually replaced with the two-sharp collection (see the alternating C#s and C#s in mm. 111–13) and beginning at m. 114 the basses begin a descent from the
previous A1 that arrives at D at m. 117. Also at m. 117 the English horn and trumpet sound D5 in unison, and the trumpet follows with a series of fanfares stressing A, D’s fifth, in a prominent register. The remaining strings in mm. 114–19 continue the dirge pattern with wider registers and leaps, reinforcing the growing grandeur of this passage as it leads to the climactic section at m. 120. By m. 114 the music is drawing its pitch content entirely from the two-sharp collection. When this collection is contextualized by the repeated D1s in the basses and the overwhelming trumpet timbre emphasizing A5, D centricity is forcefully conveyed, despite the large numbers of pitch classes sounding simultaneously in this music.

D clearly emerges as the most salient pitch center of the dirge section, thus continuing the emphasis on members of the {B♭–C–D–F–G} collection as structural pitch centers. The section’s rhetorical role, however, seems to be to move away gradually from the introspection of the previous three sections and toward the grandiloquence of *Quiet City*’s climax.

**The Climax**

The dirge section’s concluding exaltation in D centricity is abruptly interrupted at m. 120 (see example 6.11 above). The trumpet here reaches beyond the A5s of its previous fanfares, causing the music to shift suddenly from its two-sharp pandiatonicism into what turns out to be the five-flat diatonic collection. In an important sense this is a tonal world “beyond” D and the other structural pitch centers of *Quiet City*. As suggested in the earlier discussion of mm. 25–26, this climactic section eschews the other sections’ pattern of positing a main pitch center that is a member of the {B♭–C–D–F–G}

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11These collections could not be further removed from one another—they share only two common tones, which is as few as any two given diatonic collections can have in common.
collection. Instead, the climactic section makes use of its own pentatonic collection, \{G\#–A\#–B\#–D\#–E\#\}, as a source for potential pitch centers, touching upon each of its members with various levels of ambiguity as the section unfolds. Example 6.12 shows this section in its entirety.

The opening bars of this Largamente make use of the ambiguity built into the 4−3−1 motive to touch quickly upon three different potential tonics. The strings’ melody immediately presents 4−3−1 in A\#, extended to become 4−3−1−5 with a perfect fifth leap up to Eb, A\#'s fifth. This melodic emphasis of A\# has a vague correspondence to the ostinato bass, which features the ascending fourth Eb–A\#, and to the supporting chords in the strings’ inner voices that retain A\# and Eb as common tones throughout these first two measures. In m. 121, however, the triplet melody emerges. Its first two pitches, Eb and F, seem at first to represent 5 and 6 of the preceding A\# centricity; we might therefore expect the melody to progress up to 1 at the downbeat of m. 122 in analogy to its predecessors at mm. 57–58 and mm. 50–51 (see examples 6.7 and 6.5 respectively). Instead, Copland replaces the expected A\# at the onset of m. 122 with G\#. This pitch class, unheard since the end of the dirge section, takes on the character of a new goal for the triplet melody’s upward striving towards a tonic, and the anacrusis to m. 122 can thus be retrospectively reconciled as 6−7 in G\#. The sudden focus on G\# is itself mitigated as the melodic G\# at the beginning of m. 122 is next treated as the 4 of a potential 4−3−1 in D\#. The G\#–F–D\# of m. 122 embodies the same ambiguity first observed in m. 58—the intervallic pattern descending half-step/descending major third can serve as either 4−3−1 or 1−7−5 of a diatonic scale.
Example 6.12. The climax section (mm. 120–33) with analytic notes
In the context of this piece that so often uses this pattern as \( \hat{4} \hat{3} \hat{1} \) (as recently as two measures earlier), the listener might be tempted to momentarily favor \( \text{Db} \) centricity over \( G\flat \) before the triplets continue with leaps between members of the \( G\flat \)-major triad. To sum up these few bars with a metaphor: even while depending entirely upon a single diatonic collection, the melody takes on the character of a tonal prism, rapidly reflecting foci on three different pitch classes as it turns this way and that.

In fact, the music sets its sights on yet another pitch class beginning in m. 123. The strings’ triplet melody here settles on \( E\flat \), which is echoed twice by the trumpet in mm. 124–126.\(^{12}\) The trumpet returns to the triplet melody and its characteristic \( \hat{4} \hat{3} \hat{1} \) motive at m. 127. As it does so, the entire musical landscape abruptly shifts to the three-flat diatonic collection, thus accommodating the \( G\sharp \) of the trumpet’s \( \hat{4} \hat{3} \hat{1} \) motive. As shown in example 6.12, \( E\flat \) focus is first suggested as early as m. 123 and becomes more certain when the three-flat collection takes hold in m. 127.

The strings’ pitch content in the first half of m. 127 can be arranged as a G minor seventh chord, itself a subset of the \{\( B\flat \text{–} C \text{–} D \text{–} F \text{–} G \}\) collection so crucial to \textit{Quiet City}’s structure. The strings’ half note on beat three suggest another (inverted) minor seventh chord; the pentatonic collection from which it derives is \{\( A\flat \text{–} B\flat \text{–} C \text{–} E\flat \text{–} F \}\). This view of the string accompaniment (excluding the upper strings’ melodic interactions beginning in m. 128) as an alternation between these two pentatonic collections accounts for the rest of this section, even after the bass line changes again at m. 130. Taken together, these overlapping collections form the complete three-flat diatonic collection; said another way, Copland here demonstrates how the main pentatonic collection of this work (\{\( B\flat \text{–} C \text{–} D \text{–} F \text{–} G \}\)

\(^{12}\)The English horn and various string parts continue to put forth the “\( D\flat \text{–} D\flat \text{–} C \text{–} A\flat \)” motive in mm. 124–26. This can be viewed as an echo of this motive’s initial status as \( \hat{4} \hat{3} \hat{1} \) in \( A\flat \) (first presented in m. 120) or, since this motive lands on sustained \( G\flat s \) in most cases, as subtly continuing a secondary focus on \( G\flat \). In either case, any tonal connotations of this accompanying pattern dissipate when it is dropped at m. 126 while the overriding emphasis on \( E\flat \) centricity continues to grow.
F–G\}) can be embedded in a locally significant diatonic collection. The composer has elsewhere juxtaposed \{B♭–C–D–F–G\} with another pentatonic collection important to the surrounding section (see m. 49 and mm. 53–54), and in fact the juxtaposition of mm. 127–33 was forecasted by the strings’ chords in mm. 90–92 (see example 6.10). The pitch content of \textit{Quēt City}'s opening seems not only to predict the work’s main pitch centers but also to permeate the tonal structure of the entire composition, resurfacing in numerous contexts.

The \(\hat{4} \hat{3} \hat{1}\) motive, which had already been extended to \(\hat{4} [\hat{4} \hat{3} \hat{1}] \hat{5}\), is further lengthened with a prefix beginning in m. 128. The resulting \(\hat{2} \hat{3} \hat{4} [\hat{4} \hat{3} \hat{1}] \hat{5}\) is the subject of intense melodic imitation leading to the height of the climax at m. 133. Beginning on the fourth beat of m. 128 the upper strings present the extended motive at a pitch level that, considered alone, would suggest B♭ centricity. The English horn imitates the upper strings at the same pitch level two beats later. The trumpet follows two beats after that, though at the pitch level reinforcing E♭ as tonic. The order of imitation is varied in m. 131 as the trumpet answers the strings, and the English horn the trumpet. The section culminates in m. 133 as the trumpet sings out B♭5 alone, leading into the restatement of the nostalgia music.

In contrast to its status as an “intruder” in the dotted-note and first nostalgia sections, E♭ is featured here as the most unequivocal pitch center of the climax. Long melodic E♭s suggest this pitch class as a tonic as early as m. 123, and the three-flat collection introduces the return of the triplet melody—using \(\hat{4} \hat{3} \hat{1}\) in its usual way—at m. 127. The melodic imitation closing this section focuses on E♭ and its fifth, B♭, and the most prominent instrument by far in any performance, the trumpet, is granted the version of the motive focusing on E♭. Moreover, E♭ is not a foreigner in the group of pitch classes emphasized in the climactic section, for it is a member of the \{G♭–A♭–B♭–D♭–E♭\} collection accounting for each of the notes stressed (however ambiguously) as potential pitch centers in example 6.12. The tonal problem of E♭’s strangeness as it appears in
previous sections is here auspiciously reconciled, and that resolution can in fact be viewed as a tonal impetus for the work’s climax on this tonality.

The foregoing discussion of the imitation in mm. 128–33 illustrates that B♭ as a pitch center is accompanied by a secondary emphasis on B♭, its fifth. B♭5 is the most salient note of the trumpet melody in these measures, though it is always approached from the B♭ below, thus drawing attention to B♭’s supremacy here. The trumpet’s final B♭5 in m. 133 acts as a link to the nostalgia restatement that immediately follows: the trumpet is elided into m. 134 as the ’cellos start the returning theme on the same pitch class. Further, B♭ emerges as the main pitch center of this nostalgia statement as shown in example 6.1. The use of B♭—indeed, B♭5 in the trumpet—to lead to the next section is paralleled by the climactic section’s beginning at m. 120. The trumpet’s “reaching beyond” the fanfares of mm. 117–19 into higher registral space precipitated the leap into a new tonal space, which was announced by the trumpet’s B♭5 at m. 120. This B♭’s role as a bridge between the climactic section and the surrounding music takes on additional weight in light of the pentatonic collections informing the structure of this work. With the exception of the climax, each section of Quiet City revolves around a main pitch center that is a member of {B♭–C–D–F–G}. The climax, by contrast, touches upon each member of a different pentatonic collection, {G♭–A♭–B♭–D♭–E♭}. It seems only appropriate that, as the music moves in and out of the climactic section and its contrasting pentatonic “world,” it does so by stressing B♭, the only pitch class common to both collections. B♭’s musical role in the climactic section thus reflects its linking of these two structurally important collections.

### Reprises of “Nostalgia” and “Urban Pastoral” Sections

Despite the overwhelming way in which B♭ heralds the nostalgia music’s return at m. 134, B♭ centricty is not at all certain as this new section starts. B♭ is apprehended as the
E♭ at the end of the climax. The ’cellos reinforce the elision of the trumpet’s B♭ into this section’s opening, as shown in example 6.13, but the section’s opening is itself tonally vague, just as the opening of the earlier nostalgia section was tonally vague.

Example 6.13. Measures 134–49

With the inconsequential exception of the first few melodic intervals’ precise sizes, the music beginning m. 134 is for some time an upward half-step transposition of that starting at m. 33 (see example 6.5). Were this later section to continue just as the former music did, we would expect an eventual culminating focus on A♭ in analogy to the one on G in mm. 48–49. However, at m. 143 the English horn’s melody is suddenly aborted just as it completes a B♭-major arpeggio (compare the trumpet’s A-major arpeggio in m. 42). Following an unmetered silence the trumpet echoes this arpeggio, and then the two wind instruments alternate octave leaps emphasizing the fifth of B♭ major. This truncation of the nostalgia music at the B♭ arpeggio, and reiteration of B♭ major’s chord members cause B♭ to take on centricity. In fact, B♭ is the only unambiguous pitch center of this section, as
the reprise of the opening urban pastoral begins in m. 150 (immediately following example 6.13). The presentation of B♭ as the main pitch center here completes the outlining of the {B♭–C–D–F–G} collection linking the structural tonalities of Quiet City.

The way in which the climax, which ended with E♭ centricity, heralds the eventual positing of B♭ as a structural tonality further redeems E♭ after its seemingly incongruent interruptions in the first nostalgia and dotted-note sections. Recall that the climax finished with imitative voices stressing E♭ alongside B♭ as its fifth, which can now be seen as foreshadowing B♭’s importance to the following nostalgia reprise. Further, the climactic note of this entire work—the trumpet’s B♭ at m. 133—is cast in the context of E♭ as its fifth. The retention of this B♭ as a common tone into the beginning of the subsequent nostalgia music allows this music to exist at a pitch level wherein it can eventually, at mm. 143–49, linger on a B♭ major triad.

One can imagine that E♭ functions as a metaphor for the artistic aspirations of the play’s main character. While moving through his conformist life, and the individual pitch centers of the structural {B♭–C–D–F–G} collection, he is reminded of his suppressed idealism as E♭ emerges ambiguously and repeatedly. Finally, in the climax he reaches a personal crisis: will he give up the structure of his regular lifestyle, i.e., the structure of the {B♭–C–D–F–G} collection, and take a risk to fulfill his dream? As in the play, the answer is no. E♭ leads to B♭ and the collection’s completion, and the character returns to his life as a typical businessman.

The shortened version of the urban pastoral that closes Quiet City is tonally unchanged through the end of the trumpet ad lib. at m. 161. This can be readily seen in example 6.1 by comparing mm. 1–22 with mm. 150–61. Example 6.14 displays the work’s conclusion, beginning just after the trumpet’s ad lib music.
The English horn doubles and sustains the upper notes of the string pizzicato in mm. 162–64, creating agogic emphasis on G as each subphrase tarries on that pitch class. Then, in m. 165 the English horn acting alone reinterprets G as the fifth above C. These measures thus replicate the tonal emphases of the ad lib. trumpet solo immediately preceding them. Example 6.1 illustrates that this solo, the similar solo in m. 21 of the original “urban pastoral,” and the English horn/pizzicato response at the end of the work all follow previous music centering on C, suggest G momentarily, and then return to C. The music of example 6.14 thus comprises a fitting close by restating the first juxtaposition of specific pitch centers from the piece’s opening section so as to return to C, Quiet City’s first definite tonality.\(^{13}\)

\(^{13}\)Pollack implies that the final pitch of the piece could be considered “an unresolved dominant.” Creighton goes so far as to claim that F “never reappears as expected,” and that while the C emphasized at the end of the trumpet cadenza remains in force to the end of the piece, it “leav[es] the F tonal area open ended.” If the listener has a strong predilection toward apprehending diatonic collections as major scales, despite modal implications in the music itself, such perception might be possible. However, as almost no specific evidence for F centricity is to be found in the pastoral’s reprise, the strong salience of C and the almost total absence of F from these bars would seem to override an impression of C as “being F’s fifth.” In fact, it is the descending fifth to C that constitutes the work’s final melodic interval in m. 165. (Creighton unconvincingly describes this interval as “an afterthought” that is not enough to help C to become “a tonic in its own right.”) Pollack, Aaron Copland: The Life and Work of an Uncommon Man, 332; Creighton, “Tonality in Selected Works of Aaron Copland,” 111.
The final nostalgia and urban pastoral sections provide formal closure in their roles as abbreviated reprisals of the first two sections of the work. They also provide a sense of tonal completeness: the final pitch of the \{B♭–C–D–F–D\} collection to be asserted as a structural pitch center, B♭, is finally introduced in the nostalgia reprise. That introduction via E♭ at the end of the preceding climax also provides a resolution for E♭’s seeming incongruity in its earlier appearances. Finally, the restatement of the pentatonicism of the opening urban pastoral at its original pitch level reinforces a view of that collection’s structural role in this piece. While the piece does exhibit tonal closure inasmuch as it ends on C, reflecting its first clear pitch center from m. 13, the employment of the opening and closing pentatonic collection as the source for significant tonalities is the element lending coherence to *Quiet City*.

**Synthesis**

*Levels of Pentatonicism*

The foregoing analysis shows that *Quiet City* makes exhaustive use of pentatonic materials in several different ways. This consistent preoccupation creates a sense of internal coherence and consistency in spite of the sectionalized formal approach that led Pollack to describe the work as a “suite.”

In the most rudimentary sense, the individual harmonies and melodies of the work exhibit a pentatonic emphasis. There are few extended passages that are *strictly* pentatonic, though the opening twenty measures are notable in their exclusive reliance upon a single pentatonic collection. A great many of the sustained harmonies that characterize the strings’ music throughout are subsets of pentatonic collections. As noted above, for instance, m. 67 stands in relief simply because it features a tetrachord that is *not* a pentatonic subset. Similarly, many of *Quiet City’s* themes demonstrate a pentatonic emphasis, though no significant theme is restricted exclusively to a pentatonic collection.
Just as the nostalgia theme completes a pentatonic collection in mm. 33–35, for example, it immediately introduces a descending half step from D to C# that blurs the pentatonic focus. The interruptive triplet melody also suggests pentatonicism without actually embodying it. Each appearance begins with the $^{4\frac{3}{4}}-\frac{3}{4}-1$ motive, which includes a descending half step. The melody consistently goes on to feature the major seconds, thirds, and perfect fourths and fifths that typify pentatonic scales while failing to constrain itself wholly to a single pentatonic collection. (Measures 64–72 are a good example of this phenomenon.) Pentatonicism clearly has a strong influence on the melodic and harmonic features of this musical landscape without controlling them absolutely. This is no surprise, for the alternative—a musical surface that is exclusively pentatonic—could certainly become tiresome.

In addition to impacting the musical surface of the work, pentatonicism controls the tonal organization of Quiet City both within its constituent sections and at the level of the entire piece. Considered individually, each section of this composition posits a group of pitch centers (or potential pitch centers) that constitutes a pentatonic subset. In addition, each section (save the climax) exhibits one or two most salient pitch centers that, considered together with those of the other sections, form the pentatonic collection {B♭–C–D–F–G}. The organization of the piece’s pitch centers within and across its constituent sections thus reflects the music’s surface pentatonicism at two higher levels.

Example 6.15 illustrates these levels. Its middle row summarizes the main pitch centers of each section. (The asterisk corresponding to the climactic section refers to its incongruities as described above.) The bottom row of the example shows, for each section, a pentatonic collection that might be viewed as referential for that section. The largest typeface in this row represents the section’s most significant pitch centers, which are duplicated in the row above. The pitches in smaller bold type represent other (potential) pitch centers touched upon in that section.
<table>
<thead>
<tr>
<th>“urban pastoral” (mm. 1–31)</th>
<th>“nostalgia” (mm. 32–72)</th>
<th>“dotted-note figure” (mm. 73–94)</th>
<th>“dirge” (mm. 95–119)</th>
<th>climax (mm. 120–33)</th>
<th>“nostalgia” (mm. 134–49)</th>
<th>“urban pastoral” (mm. 150–68)</th>
</tr>
</thead>
<tbody>
<tr>
<td>C — F</td>
<td>G</td>
<td>C</td>
<td>D</td>
<td>*</td>
<td>B♭</td>
<td>C</td>
</tr>
<tr>
<td>{B♭ C D F G}</td>
<td>{G A B D E}</td>
<td>{E♭ F G B♭ C}</td>
<td>{D E F♯ A B}</td>
<td>G ♭ A♭ B♭ D♭ E♭</td>
<td>{A♭ B♯ C E♭ F}</td>
<td>{B♭ C D F G}</td>
</tr>
</tbody>
</table>

Example 6.15. Multiple levels of pentatonicism in *Quiet City*
For example, the structural pitch center of the dirge was shown to be D, but E centricity is also posited by the English horn melody partway through the section (at m. 105). The smallest type in example 6.15’s bottom row is used to fill in pentatonic collections suggested by the sections’ pitch centers—collections that are in many cases reinforced by their emphasis in the musical surface.

Example 6.15 shows that each section’s pitch centers, considered in light of the music they represent, demonstrate affiliations to various pentatonic collections. In addition, the main pitch centers of each section can be joined together to generate a single, complete pentatonic collection (\{B♭–C–D–F–G\}) that thus reflects this pentatonicism at the level of the entire composition. This specific collection is further aligned with the musical surface it represents in the tonally ambiguous way the work opens while using that very collection, and then returns to that collection in the final section. The opening measures especially reinforce the notion that this work is not “about” any one pitch center, for they present the complete \{B♭–C–D–F–G\} collection without stressing any one of its members as a pitch center for twelve measures. That perspective is confirmed in the composition’s attention to every member of the collection as a structurally important pitch center as the work proceeds.

No section of Quiet City is strictly pentatonic, and in fact different pentatonic collections or subsets thereof are often bluntly juxtaposed in this work. Even so, it is interesting to note that the various tonics of any given section constitute a pentatonic subset, and that a pentatonic collection suggested by that subset also features prominently in the musical surface of that section. The pentatonicism of the urban pastoral sections has already been discussed in relation to its own pitch centers (as well as the main pitch centers of the entire piece). Likewise, the first nostalgia section has been shown to at least ambiguously touch upon each member of \{G–A–B–D–E\} as a potential pitch center while also presenting four-note subsets of that collection as cadential harmonies (in m. 49
and mm. 53–54). The dotted-note section exhibits perhaps the weakest focus upon its referential pentatonic collection, but even its thick harmonies include sonorities derived from \{E♭–F–G–B♭–C\}, such as its opening C-minor triad, the resolution of the diminished seventh chord in m. 75, and much of mm. 78–80 (the occasional, unstressed Ds and A♭s in these measures notwithstanding). The dirge, like the preceding dotted-note music, often appears more diatonic than pentatonic, but its culmination in mm. 117–19 makes prominent use of \{D–E–F♯–A–B\}—only the ‘cellos’ G3 (in the middle of the texture) disrupts the pure pentatonicism. Finally, the second nostalgia section also vaguely suggests A♭ and C as possible centers, just as the original nostalgia music began with weak notions of G and B centricity, before settling on B♭. The later section places its structural B♭ alongside the suggested A♭ and C in the collection \{A♭–B♭–C–E♭–F\}, which is also the source for the interjecting string harmonies in mm. 134–38. The individual sections thus align their pitch centers around specific pentatonic collections, paralleling at a more local level the whole work’s alignment of its main pitch centers around a single pentatonic collection.

Even the climax selects its pitch centers (however ambiguously suggested) from a single pentatonic collection. Each member of \{G♭–A♭–B♭–D♭–E♭\} is granted at least some tonal salience as this section progresses. If a single structural pitch center were to be chosen for this climactic music, perceptual criteria would certainly demand that E♭ be selected, as the foregoing analysis implies. However, E♭ is not a member of the structural \{B♭–C–D–F–G\} collection that accounts for all other sections’ main tonalities. This accords with E♭’s role at the end of the climax as a herald for B♭, the final member of \{B♭–C–D–F–G\} to take its position as a section’s main pitch center. E♭’s prominence is justified by its presentation of B♭ as its fifth; it is otherwise a foreigner among the structural pitch centers ranging across the rest of the work. This “outsider” status is reinforced by the interruptive nature of E♭’s introduction at m. 65 and its clouding of the
structural C centricity in the dotted-note section. The climax may reflect the work’s pentatonicism, but it is in a structural sense removed from the other sections. That sense of distance is reinforced by Eb’s out-of-place character in its earlier appearances when that pitch center turns out to be crucial to the climax’s tonal structure.

Approaches to Tonal Shifts

The ways in which Copland accomplishes shifts from one pitch center to another at junctures between Quiet City’s seven sections also reflect the associations between structural pitch centers as members of a single, overarching pentatonic collection. Measures 72–73 (the seam between the first nostalgia and the dotted-note sections, see example 6.9) and mm. 94–96 (the end of the dotted-note section and the beginning of the dirge, example 6–10) both introduce new structural tonalities (C and D respectively) in perhaps the smoothest fashion possible. A single pitch is isolated in the trumpet, suggesting in its isolation for an instant that this pitch might itself serve as a new tonic. Instead, that pitch is immediately recontextualized as a “dominant” note in a new tonal landscape oriented a fifth below. At m. 73, the trumpet’s G becomes 5 of C; at m. 95, its A is reinterpreted as 5 of D. The dirge is thus elided smoothly with its surrounding sections. The tight tonal linking of these three sections via such smooth tonal shifts would appear to reinforce the linking of the sections’ main pitch centers as members of a single pentatonic collection at the largest structural level.14

A similar transitional technique connects the second nostalgia and urban pastoral sections near m. 150. Example 6.13 shows the music leading up to this point; m. 150 ff.

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14In the case of mm. 94–96, it is worth noting that A, represented by this isolated trumpet note, is not the main pitch center of the dotted-note section it concludes. As examples 6.1 and 6.15 show, the dotted-note music’s structural tonality is C. The use of A at this juncture, however, allows for the smooth connection of the dotted-note and dirge sections despite their exhibiting of main pitch centers a major second (rather than a perfect fifth) apart. Example 6.1 encapsulates this issue.
parallels the work’s opening bars. In mm. 147–49 the English horn and then the trumpet isolate the pitch class F. Here, the isolated note is already regarded as the fifth of a triad and tonality, thanks to the previous B♭-major arpeggiation in m. 143–45. As in the transitions introducing and concluding the dirge, however, this transition retains the isolated note as a common tone in the music that immediately follows. In this case, F features prominently in the pentatonic collection {B♭–C–D–F–G} that characterizes the opening music of the urban pastoral.

In contrast to the smooth tonal shifts characterizing transitions between most sections of Quiet City, the shift introducing the climactic section at m. 120 is remarkably startling. (Examples 6.11 and 6.12 show this moment.) In mm. 117–19, the trumpet prominently features A as 5 in the prevailing D centricity. Instead of retaining A (or, for that matter, D) as a common tone as the new section begins at m. 120, the trumpet unexpectedly reaches beyond A to B♭. This B♭ is a member of the equally unexpected five-flat collection that suddenly appears beginning at m. 120. The two-sharp collection prevailed just before this shift, and the abruptness of this shift is in part a product of the paucity of common tones shared by these collections (only two). In comparison with the character of the other tonal shifts connecting sections of Quiet City, this shift seems much more interruptive in nature. Such a perspective supports our view of the work’s overall tonal structure and this climactic section’s role therein. The climax’s most salient pitch center, E♭, is not a member of the structural collection {B♭–C–D–F–G}. It therefore stands to reason that the one section of Quiet City emphasizing a pitch center foreign to that collection would be introduced with an interruptive tonal shift. This association of E♭

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15The connection between the first urban pastoral and nostalgia sections at m. 33 also hinges on an isolated trumpet note, though here the trumpet’s sustained B♭ descends a half-step, eliding with the opening A of the English horn’s nostalgia melody. The thin texture and gentle dynamics of this moment reflect those of the other sectional transitions just explored, and thus affiliate it with them in spite of the fact that m. 33 doesn’t preserve the isolated trumpet note in the same way.
with “interruption” has already been observed in conjunction with the interruptive triplet melodies beginning at m. 64 and m. 87. In both these cases the new monophonic melody presents Eb centricity (albeit with some ambiguity), and at m. 64 the sudden shift to a new diatonic collection is analogous to that of m. 120 (see example 6.8). It makes sense that the climactic section, which is the only one not to contribute a structural pitch center to \{B♭–C–D–F–G\}, is introduced at m. 120 with a tonal shift that is both dramatic and uncharacteristic in the context of this movement.\(^\text{16}\)

The connecting tissue between the climactic section and the following nostalgia music is, once again, an isolated note in the trumpet. At m. 133 the trumpet sings out a B♭ that, in the context of the prevailing Eb centricity, is apprehended as \(^\wedge\). This B♭ is retained as a common tone, much as in transitions between other sections in this work, in m. 134 as the ’cellos begin the reprise of the nostalgia section on that pitch class. This nostalgia music is at first tonally ambiguous (just as its first manifestation at m. 33 ff. was ambiguous), but the section eventually settles on B♭ centricity as described above. (See the discussion of example 6.13.) The role of Eb centricity in the climax has been that of a tonal “outsider” up to this point inasmuch as Eb is not a member of the supreme \{B♭–C–D–F–G\} collection and Eb-centric music has consistently appeared in abrupt, interruptive manners. However, by introducing B♭ as its fifth here, and thus heralding the B♭-centric nostalgia that follows, Eb allows the large-scale unfolding of the structural pentatonic collection to be completed—and completed using a common tone in a way that corresponds with nearly every other transition between sections of this work. Eb in the climax strives for a role on par with those pitch centers that are members of the main

\(^{16}\)The climactic section features internally another abrupt diatonic shift that helps to distance this section from the rest of Quiet City. At m. 127 the five-flat collection is replaced suddenly with the three-flat collection, causing a sudden transposition of the strings’ accompanying chords in the midst of the English horn’s and trumpet’s melodic phrases. This shift also benefits the character of the climax, and the Eb centricity that reigns here, in contrast to the other sections and pitch centers of the work.
pentatonic collection; however, all its climactic efforts can only introduce the final center of that collection, and the music returns to its elegiac quality in its closing sections. If the climactic section represents the artistic, nonconformist aspirations of Shaw’s protagonist, he seems to conclude that those aspirations are futile and returns to his quiet desperation as those “E♭ dreams” are conformed, with a typical common-tone elision, to the surrounding pentatonic structure.

The tonal structure of *Quiet City* at the largest level reflects the structure of its individual contrasting sections and with elements of its musical surface via a common focus on pentatonic scales. I have suggested that, while the work opens (after some ambivalence) and closes with C centricity, imparting some sense of closure and coherence, a more accurate and complete description of this work’s tonal structure depends upon the role of {B♭–C–D–F–G} and of pentatonicism at multiple levels across the span of the composition. *Quiet City* exemplifies Copland’s contextual approach to tonal alignment in its assimilation of pentatonic preoccupations into its musical surface, into its constituent formal units, and into its linking of those units with a single, overarching pentatonic collection.
Chapter 7

“Nature, the gentlest mother”
from the *Twelve Poems of Emily Dickinson*

**Background**

Copland began work on what would become the *Twelve Poems of Emily Dickinson* (also commonly called the *Dickinson Songs*) in March of 1949. He completed the cycle by March 1950 and premiered the work with soprano Alice Howland in May 1950. The precise order of composition of the cycle’s individual songs is as yet uncertain, and Copland and his biographers have made much of the fact that the ordering of songs in the cycle was accomplished only after all of the songs had been composed.\(^1\) Copland’s sketch pages for the songs are sprinkled with dates, however, and they suggest that what would become the first song, “Nature, the gentlest mother,” was completed in or about October 1949.\(^2\) Copland went on to arrange a subset of these songs, including “Nature,” as *Eight Poems of Emily Dickinson* for voice with chamber orchestra (completed in 1970).

Prior to the *Dickinson Songs*, Copland’s song output consisted of only a smattering of individual songs, most of which remain quite obscure if even published.\(^3\) In contrast,

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\(^1\)Copland and Perls, *Copland since 1943*, 158; Pollack, *Aaron Copland: The Life and Work of an Uncommon Man*, 439. Copland claims to have composed eleven of the twelve songs by the end of 1949, and in a letter to Irving Fine from about this time he describes the cycle as completed “except for a fast song in the middle” (quite likely “Dear March, come in!”). Copland and Perls, *Copland since 1943*, 157.


\(^3\)These earlier works include the little-known “As it Fell upon a Day” (1923), the “Poet’s Song” (on a text by E. E. Cummings, 1927), and a textless vocalise (1928).
this first Copland song cycle has remained popular with performers and audiences, a
testimony to which is the analytic attention it has received relative to many of Copland’s
other compositions. It is an object of several theses and dissertations, chief of which is that
by Robert Daugherty. It also is the focus of a few journal articles, setting it in further
relief from other Copland works.

Analytic interest in the Dickinson Songs culminated in Larry Starr’s 2002
monograph on the cycle. Starr considers the songs individually, as well as their cyclical
interrelationships, in what constitutes the largest-scale published analysis of any single
Copland work to date. Unlike most other analyses of Copland’s music—let alone the
Dickinson Songs—Starr attempts to address Copland’s ubiquitous approach to pitch
centricity through discussion of specific musical details. It is appropriate, therefore, to
consider Starr’s observations in light of the analysis of “Nature, the gentlest mother”
presented here.

At just under four minutes, “Nature” is the longest of the Dickinson Songs. It
suggests, both poetically and musically, a pastorale, and in fact Copland includes the
instruction “pastoral-like” in the piano part near the beginning of the song’s second
section. Dickinson’s poem depicts the interactions between the personified Nature and
her “children,” i.e., the flora and fauna of an idyllic outdoor setting. Formally the song
can be construed as an eight-measure introduction followed by an A–B–A’ design with
sections beginning at m. 9, m. 27, and m. 44 respectively. Each section sets two of

4Robert Michael Daugherty, “An Analysis of Aaron Copland’s Twelve Poems of Emily Dickinson”
(D.M.A. diss., Ohio State University, 1980).

5Michael Cherlin, “Thoughts on Poetry and Music, on Rhythms in Emily Dickinson’s “The World
Feels Dusty” and Aaron Copland’s Setting of It,” Intégral 5 (1991): 55–75; Beverly Soll and Ann Dorr,
99–128.

6Starr, The Dickinson Songs.
Dickinson’s six stanzas. While the music depicts the subject matter of the text in obvious ways (e.g., bird calls in the piano part), the present analysis focuses on the contextual tonal coherence exhibited in this work. The relationships between pitch centers generate commonalities among the three sections and also reflect the poetry using means that supersede typical text-painting.

**Issues of Overall Pitch Centricity**

The present analysis of “Nature” follows a brief examination of Starr’s treatment of this song, and of his view of pitch centricity in this cycle as a whole. In discussing the manifestation of pitch centricity in the *Dickinson Songs*, he begins with remarks that may apply to many other Copland works as well.

The music of *Twelve Poems of Emily Dickinson* makes significant use of pitch centers; the music projects a strong sense of directional organization that is oriented toward firm points of arrival. In other words, the music of the cycle is “tonal” in the broad meaning of word, tonal in the way that much of Debussy, Stravinsky, and Bartók is tonal. Like those modern masters, Copland demonstrated his expanded concept of tonality in a wide variety of ways.⁷

Starr’s conception of *tonality* parallels that used in the current analysis. Further, he suggests that some sort of consistent principles govern this music’s tonal structure, though the phrase “directional organization that is oriented toward firm points of arrival” is admittedly a vague description of such principles and their operation. He articulates here the intuitions of many a student of Copland’s music—that pitch centers, the arrivals upon them, and (by implication) the intervening distances between them have significance to this music’s structure. To extract and define the elements of that structure in a given

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⁷Ibid., 35.
Copland work is a less-often attempted task, and as previous analyses in this study have shown, a more difficult one.

Starr describes “Nature” as focused on the pitch center E♭.

Sometimes a song will manifest a single, overall pitch center that shapes the whole. For instance, we may meaningfully call “Nature, the gentlest mother” a song “in” E-flat and pinpoint the manner in which its music establishes, moves away from, and returns to this E-flat pitch center.⁸

Unfortunately, the author at no point actually discusses the initial establishment of an E♭ tonality in this song, or its motion away from and back to this center. Neither does he describe the ways in which E♭ “shapes” the song. Moreover, the centricity of the opening and closing measures of this song are not so certainly focused on E♭. Daugherty’s analysis directly contradicts Starr’s on this point, explaining that “although the key signature fits E-flat major, the consistent emphasis on B-flat makes it more likely that the introduction and A sections of the piece are in a transposed mixolydian [i.e., centered on B♭].”⁹ Starr qualifies his own claim a few paragraphs later:

“Nature, the gentlest mother” is, for the most part, a diatonic piece that has already been described as being clearly “in” E-flat, and yet there is not a single unequivocal instance of a root-position E-flat major triad anywhere in this song. The E-flat center tends to achieve definition more through—or perhaps in spite of—recurring pedal points on B-flat and the sounds of first-inversion E-flat chords.¹⁰

Starr’s equivocation suggests there may be reason for apprehending B♭ as a pitch center, and that E♭’s supremacy is not so sure as his initial description implies. In fact, he nowhere offers reasoning for his determination of E♭’s primary status further than the

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⁸Ibid.


¹⁰Starr, The Dickinson Songs, 36.
above mention of “first-inversion E-flat chords.” Based on Starr’s own discussion, Eb’s role in “Nature” as the song’s main pitch must be regarded as at least tenuous, if not dubious.\(^\text{11}\)

Starr’s claims can be tested by examining the introduction and conclusion of this song for the pitch centers suggested at these significant moments. Example 7.1 shows the piano introduction to “Nature” (and to this entire song cycle).

![Musical notation](image)

Example 7.1. “Nature, the gentlest mother,” mm. 1–8

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\(^{11}\)Starr’s only other remark relating (obliquely) to centricity in this song regards perception of the beginning of the B section at m. 27, which he claims “is articulated by a shift to a new diatonic scale (hence Copland’s change to a one-flat key signature) and by a sudden, temporary relaxation both in tempo and in level of rhythmic activity.” In fact, the six measures leading up to m. 27 are characterized by a great deal of chromaticism pointing to a series of chords not diatonic to either the three-flat or one-flat collections. Further, the one-flat collection established at m. 27 is itself subverted four bars later. While the start of the B section at m. 27 is clear thanks to other musical parameters, to base the identification of this song’s large sections upon shifts to and from diatonic collections seems dubious in this context. Starr, *The Dickinson Songs*, 55.
It is difficult to make a case that the first eight measures of this work place any centric emphasis on E♭. The opening “bird call,” repeated once, lands on B♭ as the root of a major triad. A two-voiced chorale featuring double-dotted rhythms begins in m. 2. While the bass’s leaps down to the thirty-second note G4s are admittedly not typical in historical functional harmony, this chorale’s opening gestures seem otherwise to suggest a typical V7–I progression in B♭. The chorale ends at m. 5 with an open fifth on B♭, and the bird call immediately returns at transposition levels emphasizing the pitch classes of this fifth (B♭ and F). A seemingly incongruous chirping on C6 interrupts at m. 6 (and will be addressed later in this analysis). The thirty-second-note twitters of mm. 6–7 abruptly stop on A5, suggesting an unresolved leading tone in light of the previous B♭ emphasis and the still-ringing F4/B♭4 below. This impression is confirmed as the introduction concludes with sustained B♭s, suggesting Nature’s expansiveness in the four empty octaves separating them.

The introduction seems clearly focused on B♭. The first vocal entrance at m. 9 continues this focus for some time. In this light, Starr’s proposition that this song “establishes” E♭ as a pitch center can at least be contested. Daugherty’s suggestion for a “mixolydian” apprehension of B♭ centricity is closer to the mark, though even that perspective fails to account for the salience of the A♭s in mm. 6–7. To be precise, this music focuses on B♭ with a mixolydian tinge, using perceptually significant factors as described above, but is not confined strictly to the pitch content of any one diatonic collection.  

\[12\] The foregoing analysis of the introduction points out vestiges of functional harmony that support B♭ centricity—the opening of the two-part chorale and the “hanging” A♭s of mm. 6–7 evoke traditional tonal practices to reinforce B♭. Nevertheless, this analysis also leans strongly on the salience of B♭ to describe its role as a pitch center. Anecdotal evidence suggests that some listeners experienced with common-practice-era music reconcile this entire introduction as a “prolongation” of the dominant of E♭, thanks in no small part to the frequent (though inconsistent) appearance of A♭, the seventh of E♭’s V7. Such a perspective
This song’s conclusion, in contrast to its introduction, does provide Eb with an important role, though even here its status as an unambiguous tonality is dubious. The final measures of “Nature” are provided as example 7.2.

Example 7.2. Measures 51–67 (continues on next page)

illustrates the conflict that sometimes exists between salience criteria and tonal-residue criteria in selecting a pitch center in Copland’s music.
Measure 51 begins with deep, sustained B♭s in the piano’s left hand, reinforced momentarily by another B♭ and its third in the right hand’s prominent register. Simultaneously, however, the vocal melody descends through 1–5–1 in B♭ (in an obvious reflection of its text, “bending from the sky”). The piano’s left hand reinforces this attention to B♭ with wide leaps between the members of the B♭-major triad, and the right hand’s chain of diatonic fifths and thirds also moves through this chord. After moving through some intermediary diatonic collections in mm. 53–56 (to be explored in detail below), focus settles on B♭ at m. 57. The tempo slows, and the vocalist deliberates on members of the B♭ triad before ascending to F5. At “Her golden finger on her lip,” Nature is about to hush the chatter of her children, represented in the gradually
slackening rhythmic figuration of the piano part. The G5 at “silence,” which constitutes the apex of the song’s vocal line, ushers in two measures of stasis on pure Eb major harmony. Eb thus symbolizes the great tenderness of this powerful yet “gentlest” mother as she causes silence to descend upon her creation. This magical moment briefly pulls the listener towards regarding Eb as supplanting Bb as a pitch center.

The final measures fuse previous Eb and Bb references into a single entity. The singer’s “Wills silence” of mm. 63–64 oscillates between 3 and 1 in Bb, recalling the song’s very first vocal line at m. 9. This is accompanied by the widely-spaced, sustained Bbs that also ended the work’s introduction and heralded that opening vocal line. Even as those Bbs ring out, the Eb piano music from mm. 60–61 is repeated more deliberately in mm. 65–66. Capping off this simultaneous assertion of Bbs and Eb’s importance is the singer’s ultimate Bb3 (which, of course, appears in both triads) and a final reminiscence of the opening bird call focusing on Bb in the piano’s highest register. If Copland’s careful pedal indications, reinforced by the many unconnected ties in the piano part’s last four measures, are respected, then the final sonority of “Nature” is that shown in example 7.3.14

13Starr aptly points out that this may be the “too impetuous bird” referenced earlier in the poem, here still playfully resisting Nature’s call for silence. Starr, The Dickinson Songs, 57.

14Copland’s later orchestration of this song further reinforces the Bbs struck by the piano in m. 64 by introducing them with strings in three octaves (rather than two), reattacking them on the second beat of m. 65, and sustaining them to the song’s conclusion. While the piano’s rendition of the m. 64 Bbs will decay somewhat by the time the entire chord of example 7.3 can be realized, the orchestral version’s retention of these Bbs as sustained tones in the strings emphasizes Copland’s conception of them as essential to this final chord.
Example 7.3. Final sounding chord of “Nature, the gentlest mother”

This illustration shows that the song’s ultimate harmony emphasizes B♭ in its registral extremes, encasing an Eb chord in between. The issue in deciding whether “Nature” ends “in” B♭ or Eb is encapsulated in the problem of deciding whether this is a “B♭ chord” or an “Eb chord.” The B♭ centricity established at m. 57 is blanketed with the overwhelming “silence” represented by Eb at mm. 60–61. This Eb silence then permeates the rest of the song’s conclusion, reflecting its universality (“silence everywhere”). The poetic introduction of the natural world, and Nature herself, coincided with B♭ centricity earlier in the song, but that “B♭-ness” is muted at the song’s (and poem’s) conclusion by the “silence” of Eb.

Starr’s description of “Nature” as “a song ‘in’ E-flat” that “establishes, moves away from, and returns to this E-flat pitch center” would thus appear not to be sensitive to musical details that impact tonal structure. Analytic attention to the ways in which pitch centricity is perceived in the song’s opening and closing measures suggests that B♭ has an equally important role to play, especially as regards the piece’s introduction, and that it is fused in a tonally-ambiguous way with Eb at its conclusion.

Such a view of the work seems to correspond with Copland’s own conception of the song’s tonal orientation, given what can be ascertained from his sketches for the cycle. Example 7.4 reproduces a page from the sketches for Dickinson Songs now on file at the
Library of Congress.15 Copland’s roman numerals on this page correspond to the twelve songs of the cycle, next to which appear the highest and lowest vocal pitches in that song. Following these are what appear to be indications of tonalities for each song.16 A detailed examination of the musical correspondences between Copland’s indications of pitch centers on this page and each of the songs of the cycle is beyond the scope of this study, but his correlation of the first song—“Nature”—with the marking “(Eb–Bb)” squares with the analytic observations above (while contradicting previous published analyses). As the concluding chapter of this study suggests, further exploration of Copland’s compositional sketches may shed new light on his music’s tonal organization, and his own perspective of it, in view of the analytic approach advocated here.

15“Nine [sic] Poems of Emily Dickinson,” box 84, Aaron Copland Collection, 139.

16It is unclear for what purpose Copland created this sketch page or how late in the compositional process he did so. There appears to be at least one error—the highest vocal note of the second song (“There came a wind like a bugle”) is G5, not F#5—while in the third and fourth songs he may have been considering different transposition levels. In its published version, the third song (“Why do they shut me out of Heaven?”) more closely corresponds to the notation “(C–Ab),” and its vocal line ranges from A♭5 to B♭3 (and not A5 to B3). The final version of the fourth song (“The world feels dusty”) apparently relates to Copland’s marking “(D)” rather than “(Db)” and requires the singer’s range to extend from F♭5 to A♭3 (rather than F5 to A3). The jottings in the upper right corner of the page appear to be a tally of the highest and lowest vocal notes in the cycle’s individual songs.
Example 7.4. Copland’s summary of vocal ranges and tonalities in the *Dickinson Songs*
Further Correspondences between the Song’s Sections

Prior to the arrival of B♭ at m. 57 and its subsequent fusion with E♭, mm. 53–56 emphasize two other pitch classes not diatonic to the otherwise prevalent three-flat collection (see example 7.2). The specific way in which these foreign pitch classes are stressed creates a sense of culmination when B♭ centricity emerges at m. 57. In addition, the pitch pattern woven by these measures is forecasted earlier in the work, creating an interesting correspondence linking the three sections of this song to each other and to the poem they set.

Measures 53–54 focus on D♭. The vocalist twice outlines the distance between D♭5 and A♭4, first by descending through a diatonic tetrachord linking these pitches and then via a leap of a perfect fourth. Meanwhile, the left hand of the piano outlines a first-inversion D♭-major triad that is colored by a “non-harmonic” E♭4. The right hand increases the D♭ emphasis in m. 54 with a variant of the bird-call motive outlining this triad yet again. These measures might be summarized as being tethered to a first-inversion D♭-major triad. Measures 55–56 similarly emphasize C♭ with leaps between members of the C♭-major chord in both the vocal part and the piano’s right hand. The left-hand part analogously outlines a first-inversion C♭ triad. The vocalist remains on C♭ through all of m. 56, further stressing C♭. (The bird call of m. 55 strangely points to A♭ dorian; while this could be reconciled as a manifestation of C♭’s relative key, we shall see that this motive might also be construed as a last recollection of the A♭ centricity that characterizes much of the song’s B section.)

This pair of pitch emphases, each sustained for exactly two measures, gives rise to a sense of duple hypermeter that is reinforced in several ways. The voice marks every downbeat from m. 53 to m. 57 with the root of the locally stressed chord; thus, when the singer begins a bar with a different pitch the listener is immediately attuned to the change in emphasis, and that measure feels that much stronger even before it unveils the rest of a
new first-inversion major triad across its remaining span. The pairing of the words “infinite” and “infiniter” as the first of the new pitch centers also increases the strength of the downbeats at m. 53 and m. 55.

When the pitches sung on each downbeat are joined with the piano’s bass notes, a series of descending harmonic sixths results. The perception of a downward sequence is supported by the framework of descending sixths culled from the music’s outer voices on consecutive downbeats. Example 7.5 illustrates this series and joins to it the preceding Eb emphasis suggested in mm. 51–52. Following the lowest B♭s struck in m. 51, the piano then twice arpeggiates a first-inversion Eb-major triad by the end of m. 52, suggesting the potential for linking these two measures with the descending-sixths series that follows.

![Example 7.5. Downbeats in mm. 51–57 creating chain of sixths](image)

All these musical and poetic factors coalesce to prepare m. 57 as a significant arrival point. This anticipation of an arrival is fulfilled in the return of B♭ and the dissolving of the downward sequence. The vocalist in mm. 57–58 varies the melody of the preceding C♭ music on B♭ (with a repetition of the opening note and an octave displacement of another), further linking this B♭ arrival with its preparation before the final fusion of B♭ with Eb.

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17The piano’s B♭1 is represented in the orchestral version by a contrabass *pizzicato*, doubled by the harp, which will decay as mm. 51–52 continue just as it does in the piano. (The B♭2, though not as prominent as that an octave lower, is sustained by ’cellos into m. 52.)
Measures 51–56 are in fact a varied repetition of mm. 19–24 from the first A section of “Nature.” Example 7.6 shows this earlier version.

Example 7.6. Measures 19–26
Measures 19–20 parallel the presentation in mm. 51–52 of a first-inversion Eb arpeggio over Bb octaves. This Eb triad is again followed by two measures of Db emphasis (mm. 21–22) and two measures of Cb emphasis (mm. 23–24). Example 7.6 thus also suggests duple hypermeter in a similar, if somewhat weaker, way. There is no analogue here for the “infinite… infiniter” pairing of the poem’s last stanza, and the vocal line provides less stress on the descending sixths pattern by avoiding Db in m. 22 and skipping quickly through Cb in m. 24. Significantly, the sequence is disrupted before Cb can return to the Bb that opens this section. At m. 25 Cb yields not to Bb but to the one-sharp diatonic collection. Via manifestations of the bird-call motive and the left-hand first-inversion figure, this measure seems to point vaguely to C centricity even as the singer emphasizes the somewhat incongruous D. In m. 26 the bird call shifts to a focus on G, suggesting that these two bars together constitute a hazy amalgamation of ambiguity between C and its fifth.

The significance to the present analysis is that mm. 25–26 do not present Bb centricity as m. 57 will when the A section is reprised. Instead of descending a half step from Cb so as to return to the opening pitch center Bb, focus shifts upwards by half step at m. 25 from Cb to C, as summarized in example 7.7.

Example 7.7. Chain of sixths thwarted in mm. 19–26

This deflection of the descending pitch-center sequence creates connections among the tonal, formal, and poetic aspects of this work. By deflecting the movement back toward Bb, the sense of return and completion its conclusion might imply is
thwarted. The song has a tonal reason to continue, and in fact it does: the B section of the song begins with another new pitch center at m. 27 (immediately following example 7.6). The completion of the descending series Eb–Db–C♭–B♭ constitutes an unresolved issue that will need to be revisited later in the song, as it is in the reprise of the A section. Moreover, just as C emerges to interrupt the descending sequence at m. 25, the singer explicitly introduces the “too impetuous bird” for the first time. In a metaphorical sense, it is this impulsive bird and its C-major warblings in the piano that cause the sequence to break off at just this point. Interestingly, this is not the first time a “C-centric bird” has caused a tonal disruption in “Nature.” In the work’s introduction, the strongest challenge to the perception of clear B♭ centricity is another (albeit contrasting) bird call in m. 6 (see example 7.1); appropriately, that “impetuous” interruption also emphasizes C. The Cs of m. 6 are even decorated by grace-note B♭s, reflecting the approach to C in m. 25 from a half step below (spelled in mm. 23–24 as C♭ rather than B♭).

The first A section thus moves from Eb through D♭ and C♭ in a sequential, hypermetric approach to B♭ that is foiled when C♭ is deflected up a half step to C, rather than continuing down a half step to B♭. This series, Eb–Db–C♭–C, manifests two descending whole steps followed by an ascending half step (represented abstractly as <-2 −2 +1>). We have already seen how the reprise of the A section reverses the direction of the last interval (<-2 −1>, leading to the final arrival on B♭ (and its ultimate confluence with Eb). The intervening B section balances the first A section’s <-2 −2 +1> with the final section’s <-2 −2 −1> by presenting both patterns simultaneously. This gives rise to a unique tonal approach further distinguishing the B section from the surrounding music.

We have already seen that the A section ends by briefly emphasizing G in m. 26 via appearances of the bird-call motive focusing attention on that pitch class. The B section that follows immediately turns to F centricity and the one-flat collection. Example
7.8 shows most of this B section that follows, omitting only the short piano interlude with which it begins.

Example 7.8. Measures 30–43 (continues on next page)
Example 7.8 (continued). Measures 30–43

The vocalist’s entrance at m. 30 momentarily continues the emphasis on F begun by the piano three measures earlier. The piano reflects Nature’s “conversation” with her
children in a quickened version of the ascending third/descending fifth motive (first noted in this analysis in example 7.2, m. 51). Then, the left-hand accompaniment, which since m. 21 has focused on the first-inversion triadic figure, drops to outline an Eb-major chord at m. 31. The bird-call motive emerges to bring further attention to Eb and its fifth, Bb, while the singer adds a mixolydian-tinged Db before settling on Bb herself in m. 32.

Starting from the G emphasis of m. 26, the whole-step shifts downward generate the series of triadic roots G–F–Eb. This series thus far parallels the whole-step descent Eb–Db–Cb seen in both A sections of “Nature.” These three whole-step descents demonstrate further homogeneity in that nearly every chord of all three series appears in first inversion. (The exception is the G of m. 26, which is emerging from the previous G focus and is therefore underpinned by a sustained E3.) If the B section were to continue to descend by half step, creating the series G–F–Eb–D (represented by half-step motion, <-2 -2 -1>, it would replicate at a different transposition level the final A section’s descent Eb–Db–Cb–Bb. On the other hand, if the B section moved up a half step from Eb to E, the resulting series G–F–Eb–E (<-2 -2 +1>) would reflect the intervals created by the first A section’s Eb–Db–Cb–C. Example 7.9 illustrates these possibilities.

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Example 7.9. Sizes and directions of tonal shifts in each section of “Nature”

The B section’s potential movement from Eb to either E or D would thus parallel the pattern of movement in either the preceding or the following A section. In this light, the B section’s actual move from Eb is all the more remarkable. As seen in example 7.8
above, at m. 33 the left-hand first-inversion figure moves down by half step to outline a D-major triad (with the typical appoggiatura figure that has characterized this accompaniment throughout). Simultaneously, however, the piano’s right hand and the vocal part confine themselves entirely to two pitch classes, B and E, which readily manifest a sense of E centricity via the perfect fourth they outline. The move away from Eb at m. 33 thus embodies half-step motion in both directions, reflecting the $<-2-2+1>$ of A and the $<-2-2-1>$ of A’ concomitantly. The contrasting pitch series of the surrounding A sections are here balanced in the song’s middle section by its inclusion of both series.

A poetic association can be made with this treatment of pitch centers. The final descent Eb–Db–Gb–Bb in A’ comes to represent Nature and her gentle but firm governance as she silences her children. In the first A section, by contrast, the “too impetuous bird” is responsible for the upward inflection of Gb to G. As Nature converses with her “household” and “assembly” in the B section, it is only fitting that her half-step descent and the half-step ascent of her creatures (represented by that outspoken bird) appear together. The B section’s faster tempo and increased rhythmic activity reflect this aspect of the text directly; the conversation is lively with chatter. The song’s treatment of tonal shifts through m. 33 symbolizes that same facet of the poem in a deeper, if more abstract, manner. Example 7.10 summarizes the tonal elements of the B section.

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18The perception at m. 33 of two simultaneously emphasized pitch classes through conflicting triadic references is problematic. As in analogous places in other Copland works, ambiguity can result when perceptual principles stressing multiple pitches manifest simultaneously. To this listener, the relative prominence of the voice and the piano’s upper register lend more weight to perception of E as locally significant, shaded by the incongruous left-hand figure. This view is reinforced in subsequent measures as the voice maintains focus on a single pitch for some time, thus drawing greater attention to the vocal part, while the left-hand figure continues to descend through a series of triads. See the analysis of mm. 35–39 that follows.

19In fact, m. 33 is very nearly the midpoint of the song’s sixty-seven measures.
Example 7.10. Tonal events in “Nature,” mm. 26–44

The competing emphases on D and E continue only through m. 34—as the poem’s “summer afternoon” gradually gives way to evening, the tonal approach changes with the time of day. Beginning at m. 35, the singer focuses for a relatively extended period on A♭. She announces the sun’s descent in a recitative-like phrase in mm. 35–36, using in addition to A♭4 only a quick C, which is 3 in A♭. After m. 36, each of the next six bars feature another metrically- and/or agogically-accented A♭4 in the vocal part. Measure 37 approximates a double-neighbor figure surrounding A♭, while the anacrusis to m. 38 begins a rhythmically-augmented statement of the bird-call motive suggesting A♭ dorian. This motive is sequenced down a step while maintaining fidelity to the six-flat diatonic collection, thus hinting at a G♭ focus before returning immediately to A♭4 in m. 39. The vocal part of the B section then concludes with a dramatic emphasis of the entire A♭-major triad and a final sustained A♭4 in mm. 41–42.

For the most part the piano’s right hand reinforces the singer’s A♭ focus with bird-call motives on A♭ and E♭, a version of the ascending third/descending fifth motive in m. 37 that comes to land on C as approached from A♭, and rapid scalar passagework. A G♭ version of the bird call even surfaces in reflection of the vocalist’s touch upon G♭ in m. 39. More remarkable, however, is the left hand’s continuing preoccupation with the first-
inversion triadic figure. At m. 35 it begins on D♭ and—for the first time in the song—moves through C♭ to B♭. This can be seen as signifying the approach of day’s end and the eventual quieting of the surroundings by Nature, for the series D♭–C♭–B♭, preceded by E♭, will be used prominently in A’ in conjunction with the hushing of her children at day’s end. After arriving on B♭ in m. 37, the left hand appends additional half-step descents to the series (thus reflecting the setting sun), leading to B♭♭ in m. 38 and A♭ in m. 39. This move to A♭ in the left hand helps to explain the momentary emphasis on G♭ by the rest of the texture in m. 39. Since m. 33, the vocal line (with the accompaniment of the piano’s right hand) and the piano’s left hand have operated on different tonal planes. The singer has been relatively static on A♭ since m. 35 while the left hand has gradually descended, always in tonal contrast with the singer. For the singer and the piano’s left hand to converge on A♭ at m. 39 would thus be a tonally remarkable moment—too remarkable, in fact, for the text at this point is in the middle of a poetic thought that extends to the end of the stanza at m. 42. To prevent some sort of inappropriate tonal emphasis on “the minutest cricket” at m. 39, Copland nudges the singer’s tonal plane toward G♭ for just an instant, thus avoiding a too-forceful assertion of A♭ by both planes in the midst of a poetic thought.

The nervous climax that begins at m. 40 abandons the prevailing piano texture and tonal approach. As described above, the singer continues to emphasize A♭ to the end of the B section at m. 43, but the piano music does not provide convincing centric focus on any pitch class. The D♭-major triad embedded in the right hand’s music of mm. 40–41 is perceptually negated by the C♭ and G♭ below as well as the C♭6s provided by the left hand’s crossing over the right. Uncharacteristically for Copland, these measures do not even conform to a single diatonic collection—C♭ and C♭ are presented concomitantly here. By the time the trills of mm. 42–43 are attained, this fluttering, chattering climax has achieved tonal ambiguity. Nature’s reassertion of B♭ at m. 43 to begin A’ thus
constitutes a reassuring point of repose and reflects the “children’s” lying down to sleep after a busy day.

While naming a pitch center in this climax is problematic, Copland’s orchestral version of this passage suggests an additional link connecting it tonally with the surrounding music. The lowest piano pitch in mm. 40–43 is C♭4, which after its first sounding in m. 40 is taken as a grace note (with its fifth, G♭) to A♭4. One might reasonably conclude that C♭ is relatively unimportant in light of the accent and sforzando markings on the A♭s it seems to decorate. However, Copland’s pedal indications require the C♭ to ring out as a “bass note” throughout the climax. This role for the C♭ is reinforced in Copland’s orchestration. C♭4 is sustained by the trombone throughout, and is actually reinforced by double basses an octave lower. The trombone is the only wind instrument sustained into the fermata of m. 43 alongside the strings, which continue the trills to the end of the diminuendo. While C♭ does not take on the role of a “tonic” or the “root” of the complex sonority in these bars, its timbral and registral prominence is noteworthy. Example 7.10 shows that this C♭ can be viewed as a continuation of the stepwise descent in the B section’s lowest register. Beginning at m. 27, the piano’s “bass notes” (shown in example 7.10 as open noteheads) are consistently presented as thirds of major triads; the corresponding chordal roots appear in the first-inversion triadic figure a minor sixth higher. The C of m. 39, which serves as the third of the A♭ harmony suggested by the left hand’s music, drops yet another half step to C♭ at m. 40. C♭, in turn, is eventually replaced by the B♭ octaves that begin A′ at m. 44.20

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20Copland’s orchestration further supports the discernment of C♭ descending to B♭ at the seam between B and A′. In m. 42 he adds a new trill in the double basses—as the trombone continues to sustain C♭4, the basses are instructed to begin to trill downward from C♭3 to B♭3. Such a trill in the lowest register of the orchestral texture lends a sense of anticipation of the return to B♭ that is about to take place.
In the same way that Eb and B♭ are linked in the pattern Eb–Db–Cb–B♭ in the A' section, Eb and B♭ are here connected via a series of stepwise descents. In this case, the Eb of mm. 31–32 is prefixed by two whole step descents from G and F. At m. 33, both the <-2 -2 -1> and <-2 -2 +1> patterns are completed in the simultaneous shift from Eb to E and D. The half-step descent from Eb to D at this point simultaneously begins a new descent linking the two most significant pitch classes of the song, Eb and B♭. Copland then extends the descent past the first-inversion B♭ of m. 37, creating an additional link with the “root-position” B♭ that marks A’ in m. 44. The tonal concerns of the surrounding A sections thus govern the B section and even elide it with the surrounding music.

Finally, the singer’s long emphasis on Ab in the B section helps to explain the anomalous bird-call motive later appearing in m. 55 (see example 7.2). All other evidence in mm. 55–56 points to C♭ centricity; it would seem curious that this final bird-call motive of the entire work (save the fragment in the last measure’s grace notes), while conforming to the prevailing seven-flat diatonic collection, is cast so as to place focus on Ab and to suggest the dorian mode. In light of the B section’s relative emphasis of Ab, however, the bird’s twitter in m. 55 can be reconciled as a reminiscence of the lively conversation with Nature that has transpired this day. In fact, the call of m. 55 mimics, at the same transposition level, the vocal line of “Incites the timid prayer” from the B section (mm. 37–38). This “impetuous bird” simply wants to continue the earlier reverie a little longer, but does not protest too long or loudly as Nature subtly draws the veil of silence over her children at day’s end.

**Conclusions**

As the final chapter of this study shows, “Nature” shares with the other works analyzed here many commonalities relating to tonal approach. Among those are centric
ambiguity between fifth- (fourth)-related pitch centers, foreshadowings and recollections of tonalities explored elsewhere in the work, and parallel tonal approaches in otherwise divergent sections of the composition.

Of equal interest, however, is Copland’s adaptation of his approach to tonal organization so as to reflect tonally the poetic text he is setting. He does much in other musical parameters to paint the pastoral scene Dickinson’s words suggest, but he also weaves references to the poetic imagery into the tonal structure itself. The impact of the “impetuous bird” on the E♭–D♭–C♭–B♭ descent and its chirpings on A♭ in m. 55 and B♭ in the final measure of the song, the representation of Nature and her gentle governance with returns of B♭, and her ultimate crowning of the day with an “E♭ silence” each exemplify the joining of tonal structure with the text’s preoccupations. The mutual reinforcement of large-scale pitch organization and poetic descriptions lends an additional sense of internal coherence to this song unduplicated by the instrumental works examined in this study.

In addition, this analysis has illustrated the gains that can be made by more closely examining Copland’s music than is done in existing published analyses. Even though the *Dickinson Songs* are given greater attention by this literature than most of Copland’s works, such investigations do not begin to address details of tonal structure or the unique ways this structure internally unifies individual songs. Clearly, careful consideration of ways in which this music posits or blurs a given pitch centers and the motion between pitch centers can tell us more about how this song—and by extension, more of Copland’s music—displays internal tonal coherence. In this case, previously published viewpoints that summarily describe “Nature” as either “in” E♭ or using “transposed mixolydian” in its outer sections are enhanced to show the web of tonal connections binding the song’s sections together and creating meaningful associations with its text.
The following chapter highlights some commonalities to be found among the divergent approaches to tonal organization represented by the five Copland works examined in this study. As a result, features will emerge that characterize the composer’s approach to pitch structure in this repertoire. The study concludes with conjectures as to the value of this analytic approach for application to other bodies of music by Copland, post-tonal pitch-centric music by other composers, and further investigation of Copland’s compositional sketches and manuscripts.
Chapter 8
Conclusions

Commonalities among Five 1940s Compositions

The foregoing analyses have explicitly focused on generating contextually-defined perspectives of the tonal structures of the compositions involved. The main objective of this study has been to bring to light, in these individual works, the specific ways each piece demonstrates internal tonal coherence by carefully considering pitch centers, their connections to one another, and their reflections in other musical parameters. No other piece in this study, for example, does quite what *Quiet City* does when it aligns its sections’ main pitch centers with the pitch-class collection heard in its opening and closing measures, but each work demonstrates *some* method of correlating pitch centers with other musical elements. The analytic approach advocated here is validated inasmuch as it demonstrates a sense of coherence and aesthetic consistency inside each work.

Nevertheless, it is also worthwhile to give attention to consistencies across this repertoire after having explored each work individually. Since the five pieces investigated here are from a single decade of an individual composer’s career, we should not be surprised to find some commonalities among these works’ approaches to tonal organization. By cataloging those similarities, we can learn what techniques and processes characterize Copland’s approach to tonal organization during this period. Deeper insight into Copland’s style as it relates to pitch centricity and tonal structure will result from exploring the shared features in the above analyses.

Example 8.1 cross-references the five analytical targets of this study with tonal techniques found in a subset of the analyzed works. Abbreviations in the left column represent the music analyzed. Tonal techniques shared by two or more of the investigated
works are assigned numbers; explanations of each numbered technique follow the example.

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A.S. = *Appalachian Spring*, “Eden Valley” and coda (1944)
T.S. = Third Symphony, fourth movement (1946)
V.S. = Sonata for Violin and Piano (1943)
Q.C. = *Quiet City* (1940)
Nature = “Nature, the gentlest mother” from *Twelve Poems of Emily Dickinson* (1949)

Example 8.1. Shared tonal procedures in preceding analyses

1. IC–5 Stress/Ambiguity

Each composition surveyed exhibits at some point simultaneous emphasis on two pitch classes a perfect fifth (or perfect fourth) apart. This dual emphasis breeds tonal ambivalence to varying degrees throughout the repertoire. For example, the Third Symphony’s finale makes use of what I called “fifth-shadowing”: a tonic pitch class is made clear, but that tonality’s ♮ or ♪ becomes so blatantly prominent as to shadow perception of the underlying centricity. The tonic’s status is never really made uncertain, but the fifth-shadow’s emphasis is so strong as to necessitate its mention alongside that of
the governing tonality. On the other hand, the Violin Sonata’s opening balances the potentials for G and D centricity so assiduously as to preclude the apprehension of either pitch class as a certain tonic, thus creating a tonal dilemma to be played out through the rest of the work. Other significant examples from the preceding analyses include Appalachian Spring’s ubiquitous polychord superimposing two major triads a fifth apart and the closing B♭/E♭ ambiguity of “Nature, the gentlest mother.” The high-level pairing of two pitch classes separated by interval class 5 seems to be an ubiquitous feature of Copland’s 1940s music.

The identification of interval class 5’s pervasiveness as a crucial element to this repertoire’s tonal structures squares with the common view of the perfect fifth as emblematic of Copland’s musical language. It is typical, for example, for summaries of Copland’s style to make mention of his penchant for harmonies that can be dissected as stacks of perfect fifths or fourths.¹ Copland himself was even reported to have asked a student (Jacob Druckman), “Why don’t you ever use a perfect fifth?”² If it is possible for a composer’s music to be so closely associated with a single interval class, then it seems only appropriate that interval class 5 would emerge as a constant presence when Copland’s works are examined for their larger-scale tonal features. However curt existing descriptions and examinations of Copland’s style and this repertoire may be, their validity when asserting the importance of perfect fifths and fourths to this music is confirmed in various ways by the present analyses. While the specific ways interval class 5 manifests itself vary widely from one composition to another, its omnipresence in this repertoire as a prominent feature of both the musical surface and the higher-level tonal organization lends to this body of works a certain sense of homogeneity.

²Aaron Copland and Vivian Perlis, Copland since 1943, 129.
2. Pattern Completion

The abbreviated descriptor “pattern completion” refers to the way a series of pitch events culminates at a tonal arrival point after having been thwarted from reaching that arrival point in earlier versions of that series. The patterns’ repeated attempts to reach closure can create tonal impetuses reflected in other musical parameters.

“Eden Valley” from *Appalachian Spring* furnishes the paradigm of pattern completion as it is described here. Chapter 3 showed that this section’s $T_{11}$-based chains of second-inversion major triads set up a descending half-step path from the section’s opening tonality, A, to its ultimate tonality, F. This entire path from A to F is only completed near the end of the section, however. Every other time the $T_{11}$ chain attempts to bridge the gulf of half steps between A and F, it is interrupted by $T_{10}$ “hiccups” and/or simple truncation before it reaches F. The tonal frustration of the repeating, failing attempts to complete this $T_{11}$ pattern gives rise to the climax of “Eden Valley” in mm. 119–31 as that frustration bleeds into other musical parameters (dynamics, registers, etc.). In this case, the continuing delays of the pattern’s completion create a sense of drama providing a reason—i.e., a tonal impetus—for the climax to appear when and how it does.

“Nature” also incorporates pattern completion, albeit in a less dramatic way. Each of the three sections of its A–B–A’ formal design is linked via different attempts to complete the pitch pattern E♭–D♭–C♭–B♭ (or, more generally, $<2 -2 -1>$). In the first A section the pattern is deflected from C♭ up to C♯, while at the analogous moment in A’ the

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3Straus uses the term “pattern-completion” in relation to Stravinsky’s music to describe the establishment of a “single normative unit”—a pitch-class set, usually a tetrachord—and the “exploitation of the listener’s desire for the completion of that unit.” Joseph Straus, “A Principle of Voice Leading in the Music of Stravinsky,” *Music Theory Spectrum* 4 (1982): 106–07. In contrast, my employment of the term *pattern* refers to a series of similar pitch events, such as a $T_{11}$-based chain, and thus reflects the connotations of repetition usually associated with *pattern.*
Cb is allowed to lead to B♭ and thus to the song’s conclusion. The intervening B section combines the preceding deflection with the following culmination of the pattern by following the series G–F–E♭ with simultaneous evidence for both E and D focus. The result is a transposed combination of the earlier E♭–D♭–C♭–C♮ with the upcoming E♭–D♭–C♭–B♭, “balancing” the two A sections and reflecting the song’s organization into three formal units.

Pattern completion constitutes one of two main ways shared by works in this repertoire that a musical surface is aligned tonally with its large-scale tonal organization. The other, “surface reflection,” will be considered after examining “overshooting.”

3. Overshooting

Closely related to pattern completion is the technique designated “overshooting.” This term is meant to refer to the ways that, prior to a pattern’s ultimate completion, the pattern’s attempts at closure actually propel it past its projected arrival point. In each case the overshooting gives rise to a climactic moment, which is often preceded by an acceleration of the tonal pattern’s progress as it searches frantically and vainly for the goal it has already missed.

Again, “Eden Valley” from Appalachian Spring provides the quintessential example of this process. The passage beginning at m. 119 tries again and again to achieve an F major triad, but because of a persistent T₁₀ “hiccup” in the T₁₁ series, it overshoots F repeatedly and thus flies into more extreme registers and dynamics. The rate of motion from triad to triad in these faulty T₁₁ series increases: the quarter-note duration ending each triad is replaced with an eighth note, reflecting the music’s desperation in its attempts to complete the pattern. It is only when the T₁₀ imperfection between G and F is removed that the pattern is finally able to progress from A to F via an uninterrupted T₁₁ series. (Example 3.16 summarizes this passage.)
A similar if subtler invocation of overshooting appears in the B section of “Nature.” Beginning at m. 35, the piano’s left hand (operating in its own tonal plane, as described in the analysis) actually presents the entire E♭–D♭–C♭–B♭ pattern that will be completed in a more prominent fashion at the song’s conclusion. In this case, the pattern’s descent to B♭ at m. 37 is hardly a structurally significant moment, as the singer is only finishing the first line of a new stanza (“Her voice among the aisles”), and the B section does not conclude until m. 43. The descending half step with which the E♭–D♭–C♭–B♭ series ends is therefore repeated, taking the left hand to B♭♭ in m. 38 and A♭ in m. 39. This overshooting of B♭ leads again to a climax as the B section subsequently finishes with rapid piano figurations and the loudest dynamics of the song.

A tonal process in the finale of the Third Symphony resembles overshooting, though it involves a pattern that is not intrinsically capable of creating a sense of completion in the context of this movement’s tonal organization. Prior to the dissonant crash at R117, the rumba theme spins gradually out of control, articulating melodically a repeating cycle of T₂-related major triads (see example 4.26). The tonal issue here, as discussed in the analysis, is that new structural tonalities are attained in this movement by being introduced with an SUBSUME shift. The rumba theme, in contrast, is closely associated with EMERGE transformations, of which T₂ is an example. The rumba becomes frantic, throwing out one T₂ shift after another in its desperate attempts to escape its characteristic EMERGE shifts. This T₂ series is in fact doomed to incompleteness, as this type of shift simply cannot bring about a structural tonality in this music. Such a reading of this hysterical buildup to the climactic (and momentarily atonal) crash of R117

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4This association of B♭ in the left hand, prepared by the descent from D♭ and C♭, may nonetheless constitute the subtlest of text-painting. This line, “Her voice among the aisles,” is the only one in this stanza focusing on Nature—all others describe the genuflection of her children. This touch on B♭ at just this moment reflects the introduction of Nature at m. 9 and her gentlest governance of her creation when she silences it beginning at m. 57, for in both cases B♭ is emphasized.
provides a justification for this frenzy of activity based on the entire movement’s tonal organization. The T₂ series does not literally “overshoot” its arrival point—the issue here is that the series has no arrival point, but is fated to repeat itself without creating a sense of completion. The impact of this process on other musical parameters parallels that in the other examples of overshooting, but especially that in *Appalachian Spring*. In both cases extremes of register and dynamics are achieved as a result of tonal frustration as a tonal pattern tries to bring about a new, structurally significant pitch center.

In every case described here, overshooting constitutes a manifestation of tonal alignment. By “missing” tonal targets, and subsequently creating a frenzy of activity in search of them, these musical surfaces reflect the importance of bringing tonal patterns to completion at structurally significant pitch centers, and add emphasis to the arrivals of those centers by delaying them. A sense of tension is achieved in these works when these tonal patterns are unable to conclude, though the listener admittedly may perceive the tension only in the domains of register, dynamics, orchestration, and rhythmic activity. These patterns, and the ways in which their satisfactory completion is postponed (including overshooting), form the tonal impetus for this music’s activity in other parameters.

4. *Surface Reflection*

Those works analyzed that do not make use of pattern completion connect their pitch centers with other pitch events the process labeled “surface reflection.”⁵ Rather than emphasizing a structural pitch center by preparing its arrival as the culmination of a series of half- and whole-step-related triads, surface reflection correlates the levels of a given work by creating direct parallels between a group of structural pitch centers and salient

⁵This is not to say that a given work is precluded from using both pattern completion and surface reflection, though it is interesting that the works studied here employ only one or the other.
features of the music’s surface. Pattern completion establishes a series (of triads or pitch centers) leading to a structural tonality, while surface reflection describes the paralleling of a group of structural tonalities (and/or the distances between them) in an important pitch collection or motive. In both cases, elements of the music as perceived reflect elements of the large-scale tonal structure, thus demonstrating tonal coherence.

A clear example of surface reflection is the connection between the signature motive of the Fanfare for the Common Man as it is wrought into the finale of the Third Symphony and that movement’s tonal thread. As illustrated in examples 4.15 and 4.17, the framing Ds of this movement can be joined with the structurally-prominent G centricty of R121 to create a parallelism with the fanfare motive. The other pitch centers of the tonal thread fill in the gap between the first D and G, and this filling of the gap is in turn paralleled in a diatonic version beginning at R127. The pitch centers of the highest structural order are thus reflected in both the motto of the opening fanfare and the coda’s music at R127.

Quiet City’s evocation of surface reflection hinges upon its preoccupation with pentatonic collections. The individual pitch classes of the work’s opening (and closing) music, which form a pentatonic collection, are the source of the work’s structural pitch centers. Each section of the work in turn invokes a group of pitch centers (or potential pitch centers) that also form a pentatonic collection. These new collections stress one or two members as structural tonalities, each of which (with one exception) is a member of that opening collection as well. Example 6.15 summarizes this network of associations. The opening pentatonic collection thus reflects the structural tonalities of the work, which are subsequently recast as members of other pentatonic collections as the piece progresses. In this case, the more-structural pitch centers and the pentatonicism they imply as a group are reflected in each section’s less-structural centers as well as in the musical surface.
The Violin Sonata exemplifies surface reflection in several ways. Its opening focus on potential pitch centers related by perfect fifth and minor third is prophetic of the entire first movement’s tonal structure, as it constitutes a network of structural tonalities, joined in musically meaningful ways to form pairs related by perfect fifth and minor third. This approach to pairing pitch centers continues into the Lento, in which a stack of four tonalities forming a stack of perfect fifths is grouped into a perfect-fifth pair and minor-third pair (see example 5.23). The third movement comes to replace the prevailing minor-third relationships with major thirds, creating a network otherwise analogous to that of the preceding movements. This attention to major thirds is itself reinforced when the second part of this binary movement restates themes a major third higher than in the first section, and in the “poignant” melody’s repeated emphasis of G and B just before the second part begins (see example 5.29). The analysis in chapter 5 explicates these and other surface reflections in the Violin Sonata.

It would seem that surface reflection is the technique described in both the Beethoven and Stravinsky works briefly probed in chapter 2. As such, Copland’s employment of this process has antecedents in earlier composers’ music. In this limited sense at least, his music’s approach to tonal coherence is presaged in several divergent repertoires.

5. Anticipation/reminiscing

Each of the five Copland pieces explored in this study includes instances in which a surface event either anticipates an impending pitch center or tonal issue or recalls a previous pitch center or tonal issue. To a certain extent it is problematic to tease out any differences between anticipation/reminiscing and the surface reflection process described above. This is because any surface reflection of larger-scale tonal structure must necessarily point toward an element (or elements) of that structure that have been or will
be manifested in the temporal progress of the piece—thus constituting, in a sense, either an anticipation or recollection of that portion of the tonal structure. Even so, it is possible to view portions of each Copland work, in light of other musical parameters, as embodying the more-specific descriptor “anticipation/reminiscing.”

One clear example of reminiscing can be found in m. 55 of “Nature.” In the context of a prevailing C♯ focus, a bird-call motive sounds, emphasizing A♭ (in a perspective paralleling the apprehension of every prior appearance of this motive). This attention to A♭ is incongruous with the local C♯ supremacy; aside from this motive, this measure and the next seem to constitute a first-inversion C♯-major triad in parallel to the first-inversion triads that immediately precede and follow it. However, when one considers the pitches emphasized in the previous section of the song and the poetic thrust of these parts of the text, it is not hard to view this A♭ twitter as a bird’s remembrance of the sunny afternoon that has just passed. The stress on A♭ at m. 55, marked by its C♯ context, seems to constitute a surface reflection of the A♭ emphasis in the preceding B section, but its placement at this point in the song suggests that the label “reminiscence” is much more evocative of this tonal procedure’s role in this song.

A similar instance of reminiscence appears near the end of Appalachian Spring’s “Eden Valley” when the T_{11} cycle is finally presented in its entirety, explicitly linking the structural tonalities A and F for the first time (in mm. 147–50). This series’ light orchestration with solo woodwinds lends it an ephemeral quality that reinforces its impression as a fleeting memory of the Allegro’s tonal progress from A to F. Later, the work’s coda similarly creates reminiscences of A and F in the context of a reigning C centricity (see example 3.21).

The motivic parallelism that describes the Third Symphony’s finale’s melody of R127 was already described above as a surface reflection, but given its location near the end of the movement it might also be regarded as a reminiscence upon the now-complete
tonal thread. In a more general sense, the tonal shifts added to the Fanfare for the Common Man as it was re-wrought to become the finale’s introduction are prophetic. Not only do these shifts predict the importance of frequent changes in centricity for the rest of the movement, but they have ramifications for the way in which types of shifts will be grouped and linked to specific themes. Each shift in the introduction represents EMERGE; that is, each change in centricity and collection prepares by common tone the fifth-complex of the new center and collection—a fact that is emphasized by the fanfare music’s heavy reliance upon the fifth-complex’s pitch content. By beginning to build this set of associations between tonal shifts, common-tone preservation of fifth-complexes, and specific themes, this music anticipates the manner in which the rest of the movement will be organized.

Quiet City prominently displays examples of anticipation in the interruptive nature of E♭ centricity in the first nostalgia and dotted-note sections. At m. 65, E centricity is suddenly displaced by E♭ as described in example 6.7. A parallel E♭ interruption takes place at m. 88, though E♭ was already being obliquely suggested as a potential pitch center in the music preceding this moment. These two impositions of this E♭ music are readily apprehended as just that—impositions that disrupt the ebb and flow of the preceding passages. E♭’s status as an intruder locally is prophetic of its larger-scale role in the tonal structure. The climactic section’s most salient pitch center turns out also to be the only main pitch center of any section that falls outside the governing {B♭–C–D–F–G} collection. That pitch center turns out to be, quite naturally, E♭. This pitch center’s interruptive nature thus anticipates its identity as an “outsider” in the large-scale tonal structure of Quiet City.

The Violin Sonata is replete with instances that might be described as anticipation or reminiscing. At least one notable reminiscence, which resembles those described above, bears mention here. Example 5.36 shows the final violin melody of the entire
work, which recalls not only some of the most significant tonalities of the piece, but also emphasizes in its intervallic content the perfect fifths and major thirds characterizing the tonal pairings used to organize this sonata’s (and especially the third movement’s) structure. The passage is short and the chromaticism atypical of the surrounding music; both these qualities are shared by the reminiscence explored above in “Eden Valley.”

The internal tonal logic of each Copland work explored in this study suggests that many more passages can be described as anticipations or reminiscences. Further, many of those passages might fall under the “surface reflection” heading with equal validity. These passages’ significance lies in their representation of the musical surface’s alignment with the main pitch centers and tonal issues of the works in which they appear.

The next two tonal techniques explored are described in example 8.1 as “holdovers from traditional tonal practice.” They interact with the overall tonal structure of individual Copland works in various ways and to various extents, but are included here to demonstrate the composer’s sustained interest in adapting principles from traditional tonal practice to his own purposes.

6. Framing

This term refers simply to the beginning and concluding of a (usually large) formal unit with the same pitch center. Starting and finishing a movement or work with the same tonality constitutes one way to lend a sense of coherence to a musical work, but Copland’s adoption of this traditional practice is hardly consistent or conventional.

“Nature” is perhaps the most typical among the five analyzed works in its departure from and return to a single pitch center to frame the entire piece. From this perspective that pitch center is B♭, though at the song’s end it is amalgamated with Eb—thus making even this clearest example of framing somewhat ambiguous. Quiet City also makes use of framing at the largest level, bookending the piece with C centricity, though
analysis shows that this work is not so much “about” C and a return to it after an absence, but rather “about” the unfolding of a single pentatonic collection that happens to include C. Moreover, the first twelve measures of Quiet City do not clearly posit C centricity (or any centricity, for that matter).

The Third Symphony does exhibit framing, but only at lower formal levels. The finale, excluding the introduction, does start and end on D, and the framing of this unit with D becomes essential to its tonal structure. On the other hand, the entire movement begins not with D but Ab as a pitch center. It is worth noting that the entire symphony does not begin and end with the same tonality either: it opens with a clear focus on E, while the finale ends (as we have seen) on D. Only the first movement clearly begins and ends with the same tonal focus.

The Violin Sonata adapts framing in a unique way. The first movement begins with a carefully balanced tonal ambiguity between G and D, to the exclusion of any other possible pitch centers. This movement concludes with a sonority that also superimposes G and D. This movement is thus framed not with a single tonality, but with a consistent ambiguity between two tonalities. This persistent ambiguity in the first movement plays out across the others, as the Lento displays a somewhat clearer focus on D and the final movement begins and ends with G centricity (see example 5.37). The boundaries of all three movements thus share a common interest in the G/D duality that is manifested in different ways, while simultaneously preserving the contextual framing of each movement.

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6This finale is linked in performance with the preceding third movement. While beyond the scope of this study, it is possible to view these movements together as a large-scale progression from Ab to D alongside interesting correspondences with the rhetoric and formal design of these movements. However, even this perspective does not provide an example of framing.
Appalachian Spring notably does not make use of framing at any significant structural level (save its introductory section’s stasis on A and its later restatement on Ab). Many other Copland works from this period do not clearly frame their larger formal units with a single tonality (Billy the Kid, the Piano Sonata) while others do (the Clarinet Concerto). Moreover, in his career Copland never titled a work with a “key designation,” though many other contemporary composers of pitch-centric music continued to do so (Shostakovich, Vaughan Williams, Prokofiev, Stravinsky, and Hindemith, among others). This fact would seem to reinforce a perspective of framing as only one of many tonal processes this composer might choose to adopt or adapt in order to bring tonal coherence to a given work. That the works surveyed here each make significant use of tonal alignment techniques while invoking framing more casually or not at all further suggests that this repertoire hinges upon something more than beginning and ending in the same tonality to define its tonal structures.

7. Traditional Functionality

In at least three of these five pieces significant vestiges of functional harmony can be found, though with differing impacts on tonal structure. It should be noted that nearly every Copland work from this period makes use of the ascending fourth/descending fifth to point to a tonic via its “dominant.” In the instances described here, functional harmonic practice is evoked more explicitly than a simple melodic leap might imply.

In the case of Appalachian Spring, the extended passages centered on A and F in “Eden Valley” assert those tonalities as structural in part by marking them with repeated quasi-functional chorale phrases that end with authentic cadences. Later, in the work’s

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7 The exception is a long-unpublished, juvenile piano sonata “in G major” completed under the auspices of his early tutor Rubin Goldmark in 1921. My thanks go to Stephanie Poxon of the Library of Congress for confirming that Copland himself indicated a key on the first score page of this manuscript.
coda, authentic cadences on C are interrupted three times by landings on A and F triads; those triads’ significance is brought to the fore by their recognition as anomalous goals for such phrases in traditional practice.

The first movement of the Violin Sonata also puts forth pitch centers via authentic cadences. Three of the first four pitch centers are emphasized at least in part by such cadences in the piano in mm. 28–38 (see example 5.1). As in Appalachian Spring, the voice leading of these harmonies is not always traditional, but the root motion and the chord qualities above are enough to evoke traditional harmonic practice. These cadences also help to define the tonal network that controls the rest of this movement. On the other hand, this same movement’s Lyrical Middle Section also posits pitch centers via authentic cadences, but these tonalities are not similarly tagged as structurally superior to other tonalities in the movement. Their particular context in the Violin Sonata is not disposed to privilege these centers in the way that other parameters worked with functional harmony to provide A and F structural weight in “Eden Valley.”

The fleeting evocation of functional harmony in “Nature” represents yet another context for this tonal procedure. The song’s introduction, focused on B♭, includes in mm. 2–4 two-part counterpoint that concentrates on minor sevenths contracting to major thirds. Omitting the thirty-second-note G4, the melodic fragment E♭–D is presented over F–B♭ as seen in example 7.1. As noted in chapter 7, this counterpoint gently implies V7 moving to I in B♭ major. However, this bit of counterpoint never reappears after m. 4, and the entire eight-bar introduction (and much of the following vocal entrance) would remain planted in B♭ centricity were this snippet to be absent.8

8The role of this small portion of the introduction—if one needs to be assigned to it—may be simply to foretell the dotted-note music shared by the seventh and twelfth songs of this cycle. This later music is the only thematic material shared among any of the Dickinson Songs. Measures 2–5 are not motivically tied to this shared theme, but the simple presentation of a repeated dotted-note rhythm so early in the first song, unparalleled in its continuation, might serve as a prophecy of this later significant musical figure.
Thus, *Appalachian Spring* uses functional harmony in combination with other salience factors to showcase main tonalities, the Violin Sonata’s first movement uses functionality to posit pitch centers that are granted varying weight in the work’s tonal organization, and “Nature” momentarily evokes authentic progressions without creating any real impact on the song’s tonal structure. While Copland does not shy away from implying the harmonic practice of the previous era, these cases illustrate that the relative prevalence and structural importance of this practice in a given composition are hardly consistent. As with framing, functional harmony would appear to be simply another tool in the composer’s collection—used on several occasions, to be sure, but to different extents and to different ends in each piece, and not necessarily in every piece.

8. *Thematic/Tonal Associations*

Every tonal structure illuminated in this study’s analyses interacts in some way with formal/thematic design. In a sense, this interaction constitutes tonal alignment as well, for various works either synchronize structural pitch centers with specific thematic materials or highlight structurally significant links between pitch centers by coordinating those pitch centers with restatements of a given theme.

In two cases, thematic material is restated at or near the beginnings and ends of a work in the same tonality. This is the case with the opening and closing music in B♭ framing “Nature.” Following the eight-measure introduction (also in B♭), the song’s A section emphasizes B♭. When this music reappears in a highly varied form to close the song, it does so again with focus on B♭ (though that B♭ is ultimately fused with E♭, creating tonal ambiguity at the song’s end.) *Quiet City* also begins and ends with similar music (the “urban pastoral”) set at the same pitch level, thus loosely framing the work with C centricity. Both these instances were cited as examples of “framing” as well; they are
mentioned here again to point out the thematic coordination of the work’s boundaries with a single pitch center.

The Violin Sonata’s third movement associates its formal and thematic elements with pitch structure in significant ways. By restating themes from this binary movement’s first section a major third higher in its second section, the music draws attention to this interval as an important structural element. The major third’s importance is reflected in various motivic ways, creating a sense of tonal alignment with the larger-scale focus on major thirds. The sonata’s second movement similarly stresses a structural minor third between two pitch centers by associating those centers with a single theme.

The structural pillars of “Eden Valley,” A and F, are reinforced as such by their exclusive affiliation with the statements of the only lyrical theme in the entire Allegro. These statements also constitute the longest subsections of the Allegro, further emphasizing their content as thematic and crucial to the entire section’s design. By casting these passages in such formal and thematic relief to the surrounding music, the pitch centers they posit are granted additional structural weight.

As described in detail in chapter 4, the formal and tonal interactions of the Third Symphony’s finale are complex and multi-faceted. While the movement (aside from its introduction) is framed with D centricity, D is not connected specifically with any particular theme. In fact, pitch centers themselves do not correspond with thematic material in this movement; rather, the types of shifts between tonal centers, classified according to their treatments of fifth-complexes as common tones, correspond to individual themes (e.g., SUBSUME transformations are reserved for music using the toccata theme, and EMERGE appears in combination with the rumba theme). On the other hand, B centricity is coordinated with ISOLATE and a militaristic setting of the fanfare to create an interruption at R101. Thus, when a B-centric fanfare reappears at R125 without the anomalous ISOLATE shifts it can be viewed as a reconciliation of this
music’s previous interruptive nature (see example 4.29). In this instance a particular theme is granted specific tonal connotations when combined with a specific centricity. Finally, the complicated problem of locating a recapitulation in this arguably sonata-based form results directly from incongruities between the return to the opening pitch center, D, and a return to the opening thematic material, the toccata. The discussion below of this movement’s “wrong-center recapitulation” will take up this issue in greater detail.

The widely varied approaches to form exhibited by the five works of this study require that thematic materials be affiliated with tonal structure in divergent ways. The impact of such affiliations on tonal structure and alignment is also diverse from piece to piece. While the synchronization of tonal and formal concerns is sensitive to the unique contexts of each composition, that this music is uniformly concerned with such synchronization is significant to furthering understanding of Copland’s style in this period.

9. “Wrong-Center” Thematic Recapitulations

It is typical in Copland’s music, as in that of countless other composers, for thematic material originally exposed near a piece’s or movement’s beginning to reappear, often varied or transformed in some fashion, near its end. We have seen that such recapitulations contribute to the view of some of these works, by Copland and others, as evoking “sonata form.” In several cases, however, these restatements of earlier thematic areas are recast in contrasting pitch centers. These “wrong-center recapitulations,” rather than constituting returns to the opening tonality, present new pitch centers essential to the tonal logic of the entire work. This seeming contradiction—the tonally contrasting restatement of early thematic content near the work’s conclusion, invoking the rhetoric of a traditional sonata recapitulation while simultaneously fulfilling the obligations of the
composition’s contextually-driven tonal structure—is in fact a recurring feature in Copland’s music of the 1940s.

Three examples follow, beginning with the Violin Sonata’s opening movement. Example 5.4 summarizes the tonal and formal nature of this work. The recapitulation in question here begins at m. 201, but the main tonalities of the work (G and D in an ambiguous combination) are not reached until m. 225. The intervening music does paraphrase the thematic materials from mm. 21–40 that (alongside the prologue) constituted the first large section of the movement: that is, the “exposition.” The restatement music in mm. 201–24, however, involves pitch centers that are foreign to the exposition. When considered together, three of these new centers (C, F, and D♯) form an inversion of the movement’s original tonal network as shown in example 5.16 and balance the upward extension of the network accomplished by Development I. ⁹ The fourth tonality touched upon in this part of the restatements, C♯, is linked with a secondarily-emphasized E to form a further set of tonal relationships with the movement’s Lyrical Middle Section as shown in example 5.17. (All these issues are explored in detail in chapter 5.) This recapitulation thus returns to the opening thematic materials but continues to explore new areas of the movement’s self-defining tonal network. While constituting appropriate tonal behavior in the context of this movement, this exploration leads to a “wrong-center recapitulation” when considered in terms of traditional sonata form.

⁹A parallel might possibly be drawn with certain nineteenth-century composers’ practice of balancing previous tonal motions. For instance, Beethoven’s Op. 53 piano sonata features a first-movement sonata form that moves from C major to E major in its exposition. This is balanced by tonal motion down a minor third in the recapitulation, wherein the primary theme is again in C major but the secondary theme begins in A major. The Copland sonata movement similarly moves the opening tonal network up (albeit in a development section) and subsequently moves it down the same distance from its original point. See the discussion accompanying example 5.16.
**Quiet City** more closely resembles a suite in one movement rather than a sonata form. Unlike the Violin Sonata, it is difficult to construe any of its interior sections as “developments” of surrounding thematic material; rather, each section behaves somewhat more like a stand-alone episode. As noted in the analysis of chapter 6, though, the last two sections are shortened reprises of the first two in reverse order. We have already observed in the discussion of framing that the first and last sections correspond tonally as well as formally, for these two urban pastorals frame the whole work with C centricity. Absent other evidence, we might therefore also expect that the nostalgia sections appearing just inside the urban pastorals would make use of the same pitch centers. In fact, the first nostalgia section’s structural pitch center is G, while that of the other is B♭. While perhaps unexpected in the context of a more traditionally tonal work, in **Quiet City** this focusing of the second nostalgia on B♭ is essential, as it completes the {B♭–C–D–F–G} pentatonic collection that has characterized the entire tonal organization. Revising the nostalgia music to point to B♭ rather than G also perhaps renders it more poignant given the connotations Pollack suggests for this music. By its return in a new tonality, it is rendered all the more bittersweet in its reflection of the protagonist’s final abandonment of his youthful aspirations. Having decided he can never fulfill them, his perspective of them is changed and distanced.

The complexities of reconciling the Third Symphony’s finale with sonata form, and especially of locating its recapitulation, are treated in the analysis of chapter 4. Much of the difficulty surrounding the recapitulation is encapsulated in the notion of “wrong centers.” According to the thematic presentations (and the composer himself), the recapitulation would seem to begin at R118. However, the music at R118 is in the “wrong” tonality of D♭. This pitch center is incongruous both in comparison with the main, framing center of the movement, D, and with the tonal thread that governs this work’s structure, for it is not associated with the SUBSUME shifts that characterize all
the pitch centers of the tonal thread. If the recapitulation begins at R118, it does so only in a thematic sense. The remaining structural pitch centers of the tonal thread, G♭, G, and D, are reached only later in this recapitulation, where they are complemented thematically by the reintroduction of the symphony’s very first theme (somewhat ironically, given the incongruence between form and pitch structure exhibited at R118). The delay of tonal return and completion to a point after the thematic recapitulation of R118 provides a tonal impetus for the enormous apotheosis that comes to subsume the finale’s conclusion, for the structural closure is so long anticipated after the thematic return is achieved.

To label a given Copland movement or work with the designation “sonata” is usually an oversimplification of the approach to the formal and tonal concerns this designation connotes. His music is certainly characterized by returns to previously-stated thematic material, but frequently those returns are at odds with any sense of tonal return or completion. In fact, two of the three examples above illustrate that structural tonalities might remain to be explored at the onset of the thematic “recapitulation,” and in the case of *Quiet City* that “wrong-center” restatement is itself focused on the last new structural tonality. It is fascinating to consider the myriad ways Copland makes use of “wrong-center” thematic restatements while maintaining (or even enhancing) the contextual tonal consistency of a given composition.

10. **Abrupt Shifts as Tonal Markers**

In at least three works special status is conferred upon selected pitch centers by virtue of their introductions in markedly abrupt ways. This abruptness is relative to each composition’s general approach to tonal shifts, as shown below.

An instance from *Quiet City* already cited in relation to other common tonal techniques is E♭’s interruption near the ends of the first nostalgia and dotted-note sections. In the nostalgia section especially, E♭ centricity is posited in a sudden and rather jarring
way at m. 65, associated with a half-step shift from E and the replacement, in the middle
of a phrase, of one diatonic collection with another. These two collections (four sharps
and three flats) share only two common tones—the smallest possible number of common
tones between two diatonic collections—thus reinforcing the sudden quality of Eb’s
presentation. Example 6.8 showed that Eb’s impact on the progress of an already-heard
theme also emphasizes this tonality’s interruptive nature. As noted in the description of
Eb’s interruption as a forecasting of its role in the context of Quiet City, the abruptness of
its appearance here marks it as an “intruder,” which is a status it retains in the tonal
organization of the entire work.

In the finale of the Third Symphony, nearly every tonal shift is accomplished in
conjunction with the sudden, summary replacement of one diatonic collection by
another. For a particular shift to be marked as especially abrupt in this movement’s
class thus requires the contribution of additional factors. Such shifts take place at R101
and R103, which in this finale are the only moves between pitch centers related by
tritone. As the two tonalities involved in these shifts, F and B, each make use of their
associated major scales, only two common tones are shared by the predominating
collections involved; uniquely, these common tones do not include the tonic of either
pitch center. The suddenness of these shifts is bolstered by a sudden change in rhythmic
activity at R101 and an unexpected silence just before R103 (as discussed in conjunction
with example 4.27). As chapter 4 describes, B is surrounded by these anomalous T6 shifts
to and from F, creating a tonal reason for B’s eventual reconciliation in the finale’s coda.
(See also the discussion of “thematic/tonal associations” in relationship to this
movement.) The marking of these tritone tonal shifts as especially abrupt in this
movement’s context of sudden shifts is essential to a reading of the movement’s tonal
alignment.
The Violin Sonata’s final movement also confers special emphasis on a new pitch center via an abrupt tonal shift, though in this case the shift constitutes the final return to the movement’s main tonality, G. As noted previously, this movement’s structure places great value on pitch centers related by perfect fifth and major third, and in fact nearly every move between consecutive pitch centers manifests one of these intervals (see example 5.24). In this light, F♯’s sudden upheaval by G at m. 171 is remarkable, and the half step between these pitch centers is strongly articulated in the way their respective 5s are juxtaposed in this measure. As shown in example 5.34, this unique shift yanks tonal focus away from the fifth-related tonalities of the rest of the A’ section, reflecting tonally the movement’s imminent culmination and conclusion via a return to G. G’s distinctive role as the framing tonality, and the half-step shift’s exceptional appearance in this movement, are here reinforced by the startling replacement of F♯ centricity by G.

To differing extents, a great many shifts between pitch centers in this repertoire might be described as abrupt. Even so, certain shifts are, in the contexts of their surrounding music, especially marked by their brusqueness and suddenness. Copland consistently gives these particular shifts and the tonalities they introduce notable status in the tonal organization of the work. This consistency constitutes a feature of this repertoire’s overall approach to tonal coherence.

*Summary*

The nexus of tonal techniques and processes shared by different combinations of the five works investigated here helps to define Copland’s style as it relates to tonal organization and alignment. Example 8.1 shows that, of these ten techniques, each analyzed composition makes use of at least six. Every work here exemplifies tonal alignment if pattern completion and surface reflection are regarded as contrasting overall approaches to this paralleling of surface events with tonal structure. Every other
technique described appears in at least three of the five pieces, and three additional
techniques (IC-5 ambiguity, forecasting/reminiscing, and thematic/tonal associations) are
present in all five works.

Of course, these techniques are not quite so discrete from one another as their
organization into individual columns suggests. We have seen that overshooting is often a
specific manifestation of pattern completion, markedly abrupt tonal shifts create
interactions with formal design, and the line between surface reflection and a passage that
specifically suggests reminiscing on a previous pitch center or tonal issue cannot be easily
drawn. In this spirit other secondary similarities between individual works not explicitly
described above might be surmised. For example, a connection might be made between
mm. 56–58 of *Appalachian Spring* and mm. 5–8 of “Nature.” In both cases, a leading tone
of the prevailing tonality is “left hanging” unresolved, creating a sense of suspense until
the tonic pitch class is reasserted in multiple octaves a moment later. (In *Appalachian Spring*
the leading tone is even reinforced as a member of a “dominant” triad.) Another
similarity links the “crashes” of the Third Symphony’s finale and the Violin Sonata’s first
movement. Each crash is a dissonant, strident moment reinforced by thick textures and
loud volume, and both crashes appear just before their respective movements’ formal
recapitulations. The differing contexts for these crashes in each piece’s tonal organization
are discussed in the analyses above. Despite such differences, the placement of a
dissonant, climactic crash just before a recapitulation seems to be a recurring formal
feature in this repertoire, just as the “hanging leading tone” is a recurring tonal device.
These two techniques can easily be described as secondary manifestations of
thematic/tonal association and traditional functionality respectively, while simultaneously
linking this music’s divergent tonal structures with more-specific similarities.

From the broadest perspective, example 8.1 also shows that every work examined
shares three large concerns in relation to tonal organization. Each exhibits alignment
between large-scale tonal structure and surface events, each evokes elements of traditional harmonic practice with consequences for that tonal structure, and each displays associations between tonal structure and formal design. The analyses of each work in the preceding chapters have made clear that no two compositions treat any of these three concerns in quite the same manner. It should be remembered that the list of ten tonal devices of example 8.1 is only an effort to describe the shared tonal techniques from work to work. Clearly each piece displays, in its independently-defined approach to tonal structure, unique techniques that are not provided in this example. To return to this chapter’s opening example, no other work surveyed here uses a pentatonic collection to spin out its structural pitch centers as Quiet City does; hence, that specific process is not referenced in example 8.1. However, the replication of that collection in the opening and closing music of the piece, and its secondary replication in other pentatonic collections throughout the work, are the elements allowing us to identify Quiet City as exhibiting “surface reflection” in example 8.1. The foregoing discussion in this chapter has highlighted shared devices that impact the tonal organizations of the works employing them. The details of those devices’ manifestations in each piece, and the varying impacts of those devices on tonal coherence, differ so as to render each work’s approach to tonal structure unique.

In a sense, example 8.1 encapsulates the intuitions that often surround this repertoire while concurrently summarizing the contribution of this study. Beginning in the mid-1930s with works like El salón México, Copland began to compose with what has been described as a “self-imposed simplicity.”10 This “simplicity,” meant at least in part to

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10“During the mid-’30s… it seemed to me that we composers were in danger of working in a vacuum. Moreover, an entirely new public for music had grown up around the radio and phonograph. It made no sense to ignore them and to continue writing as if they did not exist. I felt that it was worth the effort to see if I couldn’t say what I had to say in the simplest possible terms.” Copland, The New Music: 1900–1960, rev. and enlarged ed. (New York: W.W. Norton, 1968), 160.
garner a wider audience and better reviews from critics, required an approach that would be more “accessible,” i.e., have more in common with musics with which his target audiences were already familiar. That this study finds in the composer’s music from the subsequent decade “holdovers from traditional tonal practice” and references to pre-existing formal design (like sonata) should thus come as no surprise, for these are characteristics that would seem to increase a composition’s “accessibility.” Many commentators have pointed out the relative accessibility of this repertoire and made mention of these and other more-general features (such as diatonicism, triadic harmonies outside of functionally-progressive contexts, and transparent textures) that contribute to that perception of simplicity. This study shows specifically how those techniques are employed not only to create a sense of simplicity and accessibility, but how they contribute alongside the other techniques of example 8.1 to a given work’s tonal coherence. Copland adapts, exploits, and modifies the conventions of functional harmony, sonata form, and other pre-existing (hence “accessible”) musical devices to forge unique tonal structures that cohere in ways setting them apart from any earlier musics as well as from one another.

By comparing the works and analyses set forth here, a more detailed view of this repertoire’s style as it pertains to pitch structure begins to emerge. While the surfaces of this music may indeed be more accessible than those of music by many of Copland’s contemporaries (or, indeed, than those of Copland’s own early music), the issues surrounding tonal organization in these works do not suggest them to be at all simple. Even so, when considered together these pieces exhibit some common concern for tonal coherence, and even feature commonalities among the divergent ways in which each piece establishes such coherence. That these common tonal procedures emerge after carefully considering each composition individually for its contextually-driven approach to tonal alignment further validates the analytic method advanced in this study.
Avenues for Further Study

Other Pitch-Centric Works by Copland

We have seen that the compositions investigated here, all completed during the 1940s, each draw from a common collection of tonal processes. A logical extension of this project would treat other Copland works that similarly feature pitch centricity in prominent ways in an effort to learn what tonal techniques govern these pieces, and whether those techniques reflect those uncovered in this study. By examining his music from different periods throughout his compositional career, it may be possible to develop a narrative describing how Copland’s approach to centricity, tonal structure, and tonal alignment changed and/or developed throughout his four decades as an active composer.

For instance, his earliest mature works (following his return in 1924 to New York from Nadia Boulanger’s tutelage in France), while apprehended at the time as ultramodernist and received by audiences no better than the most atonal of contemporary avant-gardists’ efforts, do exhibit discernable pitch centers through the use of ostinati, triads, and emphasis on interval class 5 in specific contexts. Analysis of the tonal structures suggested by these centers and any correspondences between those structures and the musical surfaces might certainly prove illuminating, as it did for the works in this study.

Another well to be tapped is the body of works by Copland that incorporates American folk music. The compositions chosen for analysis in the preceding chapters were selected in part because they do not explicitly make use of pre-existing folk tunes.\(^1\) When a composer limits himself by adopting others’ melodies, the method of relating that work’s surface and its large-scale tonal structure might be significantly different in

\(^1\)Appalachian Spring does make famous use of the Shaker tune “Simple Gifts,” but the portion of the work quoting this tune is not a feature of the analysis in chapter 3.
comparison to a work in which the composer is free to generate all of his melodic material. On the other hand, it may be that study of this repertoire quoting folk music (*Billy the Kid*, *Rodeo*, *El salón México*, *Lincoln Portrait*, *Emblems*, the two sets of *Old American Songs*, and many others) would reveal a similar approach to tonal alignment, demonstrating that Copland weaves these quotations into the works’ tonal fabric seamlessly, as if they were his own melodies. The validity of such conjecture will be tested only by additional analyses.

*Copland’s Serial Music*

At first blush it might seem that this analytic approach would not be useful for music employing twelve-tone serialism. One might expect that “tonal structure” as such in these works would hinge upon the various statements of the row and connections between them. Moreover, pitch centricity is infrequently a feature of twelve-tone music. However, Copland’s serial music does at times exhibit centricity. Jennifer DeLapp has already remarked on the centric qualities in the serial *Piano Quartet*, and it is not unreasonably difficult to perceive pitch centers in various passages of Copland’s other serial music. (This repertoire includes the *Piano Quartet*, the *Piano Fantasy*, *Connotations*, the Nonet, and *Inscape*.) Copland took pains to suggest that he had “adapted the [serial] method to my own use,” and in the case of the *Piano Quartet* claimed that “the feeling of

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12Jennifer DeLapp, “Copland and Dodecaphony: The Piano Quartet as Dialogue” (paper presented to the annual meeting of the American Musicological Society, Columbus, Ohio, 2 November 2002).

13All of Copland’s dodecaphonic music dates from 1950 or later. Various authors have described his 1930 Piano Variations as “serial” at least in part in response to its theme’s preservation of its interval classes throughout the twenty variations while varying melodic contour and overall transposition level. In this sense the work is certainly “serial,” but no more or less than any other of Copland’s music, for octave displacement and rhythmic transformation of themes are characteristic features of his entire output. In any event, this piece does not manifest *twelve-tone* serialism.
tonality or of tonal center is rarely missing.”14 This perspective is reflected by those critics who have commented that this repertoire still “sounds like Copland.” Leonard Bernstein is reported to have told Copland immediately following the premiere of Inescap, “Aaron, it’s amazing how, even when you compose in a completely ‘foreign’ idiom, the music still comes out sounding like you!”15 This perspective may have as much to do with this serial music’s evocation of pitch centers as much as any other factor.

Given the position held by Copland and other commentators that his serial work is otherwise not so divergent from his non-serial music, it stands to reason that the analytic method advocated in this study may also have applicability to this repertoire. The results of such analysis may demonstrate interesting correspondences between pitch centers and the ways in which the work makes use of the row. Alternately, attention to centricity in this dodecaphonic music may bring to light an otherwise latent tonal structure that operates independent of the details of the row’s employment. There has been no meaningful attempt to date to describe a large-scale role of tonality as it can be perceived in Copland’s serial music. An adaptation of this study’s approach could constitute a method for unlocking its tonal organization, which may more specifically link this repertoire with Copland’s other more blatantly tonal music.

*Pitch-Centric Music by Other Composers*

In the same way the present study comes to some conclusions about Copland’s style in his 1940s output as regards tonal structure, this analytic method might be applied to bodies of pitch-centric repertoire by other composers.

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14Copland and Perlis, *Copland since 1943*, 151.

15Ibid., 353. André Previn concurs: “A fascinating aspect of Copland’s compositions is that his particular voice, his handwriting, is discernable even in his most dissonant works. It is undeniable that *Connotations* and *Inescap* are forays into serialism, but… could not possibly have been written by anyone else.” André Previn, preface to Neil Butterworth, *The Music of Aaron Copland*, 6.
The aims of such analysis could vary. In the first place, examination of a body of work by another individual composer may shed light on that composer’s typical approach to pitch organization in the same way this study has for Copland (or at least the Copland of the 1940s). Contrasts with Copland’s characteristic treatment of tonal structure could be drawn. Alternately, Copland might be shown to share common treatments of tonal organization with other composers. Indeed, the tracking of similarities and differences in treatments of large-scale tonal organization from composer to composer might constitute a meaningful method for comparing tonal styles. Clearly, Copland’s musical surfaces are palpably different from those of, say, Ralph Vaughan Williams or André Jolivet, though all three make use of pitch centers. How do these varied surfaces correspond with the tonal structures they represent? How do the structures differ from one another? How do the structures’ correlations with surface pitch events compare? There already exist analytic methods that can distinguish among large-scale tonal structures by various composers of traditionally tonal music. Certainly development of a similar method to address the similarities and differences in large-scale organization of different bodies of post-tonal pitch-centric music is a worthwhile pursuit.

Another potentially intriguing project would involve analysis of music by the loosely-construed group of younger American composers who studied with Copland, openly admired his music, and/or cited him as a major influence on their own music. Such composers might include David Diamond, Stephen Sondheim, Ned Rorem, Lukas Foss, Leonard Bernstein, Virgil Thomson, and others. An analytic project exploring similarities and differences in tonal-organizational approach among this group could do much to establish or refute the notion of a mid-twentieth-century “American school” of tonal composition.

In short, our understanding of music by many composers besides Copland may benefit from analysis that concentrates on its pitch centers, other salient pitch events, and
the connections between them. By comparing the results of such analyses with those of
music by Copland, it may become possible to better articulate the commonalities or
divergences among these repertoires and to discover new methods of describing the ways
in which these composers influenced and inspired one another.

Study of Copland’s Compositional Sketches

The analytic work in this study took as its starting point the musical surface of
each work as it might be perceived. As described in chapter 2, salience is an overriding
factor in the analytic decisions made here. That being the case, there would seem to exist
potential value in learning more about Copland’s own conceptions of pitch centricity and
tonal organization in these works. How do the composer’s intentions regarding pitch
structure, inasmuch as they can be ascertained, relate to the structures defined in these
analyses?

Copland unfortunately had little to say about tonal organization in his music—in
general or in regards to specific works. Another possible source for learning more about
his views on this subject is his collection of compositional manuscripts and sketches now
housed at the Library of Congress. The analysis of “Nature” made secondary use of a
single page from this archive, some parts of which are publicly available via the internet.
Scanning these pages reveals that Copland sometimes went through several versions of a
given passage, changing its tonal focus (or foci) in subsequent revisions. More exhaustive
examination of this material, which would require visiting the library in Washington,
D.C., could reveal in much greater detail the possible reasoning behind such changes and
those changes’ impact on tonal structure and alignment.

This project has demonstrated how the pitch centers asserted in a particular
Copland composition interact with other elements of the music to give the piece a sense
of internal coherence. Further, a selection of the methods by which the works in this study foster that contextual coherence is shown to reappear across this repertoire, manifested in various yet related ways. That Copland was a careful composer of well-crafted music is widely acknowledged. This study’s aim has been to make explicit some of this music’s characteristics giving rise to that acknowledgment. As he was regarded as the “dean of American composers,” is admired and emulated by subsequent composers, and remains consistently well-represented in performed literature to the present day, it stands to reason that his music might be more than simply “accessible”—if in the light of this study it can be described as simple at all. This study testifies to the music’s consistent concern with tonal structure and alignment, while demonstrating the varied and often subtle ways in which that concern is manifested in individual works. The resulting unity may contribute to the intuitive attractiveness of Copland’s output perceived and articulated by many other composers, musicians, and scholars.
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### Related Analytic Methods


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