Recondite Harmony: the Operas of Puccini

Chapter 2: hidden harmonies and pitch resources

“Gli enigmi sono tre”

from Puccini’s Turandot, Act II, scene 2, libretto by Giuseppe Adami and Renato Simoni

The three musical puzzles that most often impede analyses of Puccini’s music (if and when they are attempted) are his so-called “bass-less” melodies, the strings of nonfunctional harmonies linked together by invariant pitch classes, and passages that sound dissonant (even atonal) and yet seem to cohere. As we examine Puccini’s pitch-related “trademarks” in this chapter, we will find in this chapter that the “solution” to each of these riddles will involve the discovery of hidden or suppressed elements, and the untangling of interwoven traditional and progressive modes of composition.

In addition to examining the “what” of Puccini’s musical language, we will also look here at the “how”—that is, the means of combining the more basic elements. And, occasionally, the territory of “why” may be broached in suggesting hermeneutic interpretations for particular compositional features. As William Drabkin has written, “the analyst’s task is [...] to penetrate the surface of the score, and to discover the true basis of its musical integrity.” Although he denies in Puccini “a governing system of elements of what one may wish to call a steadily maturing ‘personal style,’” we offer here means of understanding the composer’s pitch-related materials that encompass all his operatic compositions. In short, we turn our attention to that which has been hidden from the surface of the music, and truly penetrate, as Drabkin suggests we do, the inner workings of

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1 [the riddles are three]
the composer’s technique—aspects that Puccini, the deft musical magician, employs behind the scenes.

In Chapter 1, we saw several examples of Puccini’s symmetrical divisions of the octave. At the end of Act I of *La fanciulla del West*, shown in Example Ex. 1.12, the first time he writes Minnie’s sequential theme, it is supported by a traditional harmonic progression (I-vi-ii-vii-V-I). However, the second time it shoots around a minor-third cycle, with bass notes C-A-F#-Eb-C. There is no way to determine why Puccini wrote two versions, one diatonic and one symmetrical, but it is possible to note that both begin and end on C. In other words, to invoke a Schenkerian concept, C is being prolonged in both cases: two alternative routes to the same tonal destination.

**riddle 1**

The first of our mysteries, the “bass-less” progressions (that is, passages in which the outer voices move in parallel octaves) can be approached using the idea of prolongation. Let us look at the tenor aria “Ch’ella mi creda” from *La fanciulla*, at III/26/0. At the beginning of the aria, the outer voices are parallel, with I, III and V filled in with root-position chords. If it were not for the parallel outer voices, this progression would be a standard tonal one. But at the repetition, Puccini writes an indisputably traditional functional bass line (I-vi-ii-V).

[Ex. 2.0a and b]:

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Again, the composer is giving us two alternate paths to the same end. As we shall see, Puccini prolongs notes and key areas by four means: a) pedal points b) traditional diatonic progressions c) non-traditional symmetrical cycles d) implied diatonic progressions.

In Madama Butterfly’s “Un bel di,” for example, the outer voices are parallel and in essence descend a Gb-major scale. As Baragwanath writes, “The main theme or motivo [...] is a vocal variation upon the scale, with the guiding line doubled at the octave below.”

Yet, at the end of the aria, at II/16/0, the theme is repeated over a tonic pedal point: the addition of the pedal point affirms in a more audible manner that the tonic Gb has been prolonged throughout the scalar passage.

Many of Puccini’s melodies are, like “Un bel di,” based on a simple diatonic scale, often doubled in the bass. This has been noted by both Drabkin, who, in regard to Mimi’s

3 Baragwanath, The Italian Traditions, 270-1.
“Sono andati,” identifies the practice as a Schenkerian octave (8-line) descent, and Baragwanath, who relates the technique to Puccini’s early training in exercises such as the rule of the octave and *solfeggi*. The rule of the octave was a standard tool for theorizing and performing accompaniments, which appeared in Italy in the early eighteenth century and remained in use into Puccini’s time. As Baragwanath writes:

> It provided not only a series of closely related models for the harmonization of major and minor scales, ascending and descending, but also a hierarchy of scale degrees that, taken as a whole, served to define the key.

As a series of chords that always begin and end with the tonic chord, the rule of the octave indeed appears to “define the key” and, in so doing, to effect tonal prolongation within its endpoints. In Mimi’s “Sono andati,” another example of parallel, scalar voice-leading, the bass breaks the parallelism at the penultimate chord to include an audible dominant-tonic motion: this makes the prolongation even more obvious.

Baragwanath notes scalar patterns in “Sia per voi,” and “O soave vision” from *Edgar*, and other arias, as emblematic of this type of schema. In addition, *La bohème*, at I/0/24, contains a rising scalar pattern of parallel 6/3 chords in C major—a sort of fauxbourdon—not in the vocal line, but in the accompaniment (repeated in F major at I/1/24). A similar passage exists in *La rondine* at III/14/4 in E major with parallel complete triads. In *Suor Angelica*, a D major scale, extending from g2 down to d1 in the orchestral part only, is harmonized with parallel seventh chords over a dominant pedal. Earlier in the same opera, at 16/4, we hear two converging and crossing E-flat major scalar passages, moving at

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5 Baragwanath, *The Italian Traditions*, 149.

6 It is unlikely that the parallel triads and octaves that fill the surface of this passage would be permitted as part of any traditional instruction.

different speeds, with one descending in the vocal line, the other ascending in the accompaniment, all over a held Eb major tonic; here Puccini’s typical parallel motion is replace with contrary motion. [Ex.2.1]

Ex. 2.1 - Suor Angelica, 16/4

Puccini’s parallel constructions, under which many more standard musical progressions can be seen to subtend, are by far the most consistent element of his writing, and he came by them through both sides of his musical ancestry. Puccini surely absorbed the fauxbourdon technique of parallel 6/3 chords from his early education as an Italian church musician. And both Verdi and Wagner used parallel constructions: Verdi wrote parallel 4/2s in La forza del destino and Don Carlos, and Wagner’s “Magic Slumber” leitmotive from the Ring is formed from parallel triads. Yet, motion by parallel chords, often referred to as “planing,” is also seen as a staple of modernism.8

There is an enormous variety of parallels in Puccini’s corpus of works—parallels that no rule of the octave would allow. We have already seen examples in Chapter 1 of parallel triads and empty fifths in La bohème, to which we now add a small sampling of the many other sorts of parallels Puccini writes. In La bohème, at II/4/29 (and II/6/4), we have parallel half-diminished sevenths rising chromatically [Ex. 2.2a]. Madama Butterfly, at II/65/0, contains a descending pattern of parallel ninth chords, along two whole-tone tetrachords:

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8 Davis uses this term in connection with Puccini’s parallel constructions. Davis, Il Tritico, Turandot, 39.
G#/F#/E/D / C#/B/A/G. Parallel octaves along a whole-tone axis are embedded with parallel tritones at II/31/33 in La rondine. Puccini writes a parallel string of whole-tone sonorities over a tonic-dominant bass ostinato in Il tabarro, at 77/4 [Ex. 2.2b]. And in one remarkable passage of Suor Angelica marked “con agitazione” at 48/0, the Zia Principessa’s anger grows and grows; as it does so, a single-line pattern (G-F#/F-Db) becomes the subject of an almost canonic multiplication of contrapuntal layers that transform the single line into parallel tritones, then parallel half-diminished sevenths, and finally ninth chords—all over a mostly dissonant G pedal.

Ex. 2.2

a) La bohème, II/4/29

b) Il tabarro, 77/4

The dissonant pedal point—another means of prolonging a pitch class—is a Puccinian trademark, present from the first measure of his first opera (see Ex. 4.3) to the last act of his final, unfinished Turandot, at III/26/0, where a low F# lies under descending triads on C, Bb and A. As noted in chapter 1, the dissonant pedal point looks both forward and backward: it is a commonplace in Baroque music and elsewhere, where it often prolongs the
dominant or tonic. Yet it can also hint at polytonality. Puccini can use the device for normative tonal functions, but also as a representation of a multifocal dramatic situation. In the latter case, the separate layer of music can reflect a second narrative thread or event, or two (or more) states of being.

Three contrasting examples of a traditional use of the pedal point can be found in *Edgar* just a few moments apart. At I/17/0, the evil Tigrana laughs, accompanied by an A-flat minor “Allegro satanico” that opens with three bars of a tonic double pedal on Ab and Eb. A few moments later, at I/21/0, Frank sings the loving “Questo amor” in F major, which is also supported by parallel thirds and a double pedal—which lasts almost eleven measures. Finally, at I/24/0, an actual organ, coming from the onstage church, plays a long pedal point on Eb, topped with 2-3 suspensions, which functions as the dominant to the Ab major *andante religioso*, “Dio non benedice.” This same device is thus repeatedly used in consecutive musico-dramatic situations that are vastly different. Attempting to identify a single hermeneutic association for the device, then, would seem difficult if not futile. [Exx. 2.3a-c]

Ex. 2.3

a) *Edgar*, I/17/0
Lest one conclude that Puccini only used pedal points as tonic and dominant prolongations in his early works, one can find the same technique in *Suor Angelica*, where the bass pedal on C at 37/5 underlies many dissonances, but finally reveals itself to be the dominant of F major (which arrives at 38/6).

Dissonant pedals without obvious tonal functions can often be employed at multifocal narrative points. For example, the proto-bi-tonal pedal point from the first version of *Edgar* (Ex. 1.16a) shows C major above a B (major) pedal; at this point in the drama, a crowd is shouting at Edgar “Disgrace to him!” [Onta su lui!] while Gualtiero is simultaneously asking his terrified daughter to leave, while Ex. 1.16b from *Il Tabarro* depicts Michele’s black mood in A minor while a distant bugle sounds the “all quiet” in Bb major. A similar multifocal event occurs in the revised *Edgar*, at II/16/16, where a Gb pedal underlies the distant Ab major sounds of an approaching army. Finally, at the climax of *Suor Angelica*, at 79/4, a low A pedal underlies Angelica’s prayers in D minor, while the off-stage chorus sings their Latin prayers on D major, F major and Bb major, outlining a Bb major triad.
Here again we have two simultaneous events in different locations that are literally of another (tonal) world. [Ex. 2.4]

Ex. 2.4 *Suor Angelica*, 79/4

This technique opens the door to full-fledged bitonality or polytonality, which first appears in Puccini’s music with the bitonal clash in *La bohème*’s second act (between E major and Bb major in *La bohème* at II/27 when the parade interrupts a reprise of Musetta’s waltz⁹) and in isolated moments in *La fanciulla del West* (1910); for example, at I/14/0, we hear the “gold” motive, a melody in C# major, over a B# diminished seventh chord. By the time of *La rondine* (1918), Puccini is using bitonality in a more ironic, Straussian manner. We can see this at II/1/7, where the end of a Bb-major phrase is punctuated with a sforzato B-major chord. And of course in *Turandot* bitonality is so pervasive it is almost the new norm, proclaimed unabashedly in the opening pages of each act.¹⁰ Despite the pervasive bitonal ambience of the opera, however, the bitonal complex of G major and Db⁹ at II/25/3 still seems to indicate a multifocal dramatic situation: here, Ping, Pang and Pong hear the distant trumpets and drums of the ceremony beginning offstage.¹¹

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⁹ See Ex. 7.0.


¹¹ Whittall notes that bitonality derives from “broader 20th-century concern with the superimposition of complementary textural strata, such as is promoted by Schoenbergian combinatoriality [...] In addition, bitonality’s ability to suggest a fractured psyche or diametrically opposed traits of character gives it a particular, small-scale appropriateness.” Arnold Whittall. "Bitonality." In *Grove Music Online*. Oxford Music Online, http://www.oxfordmusiconline.com.ezproxy.bu.edu/subscriber/article/grove/music/03161 (accessed January 5, 2012).
Puccini’s other pitch-related “trademarks” include various equal divisions of the octave. Among these, tritones—the symmetrical division of the octave in two equal parts (and Alaleona’s “bifonia”\textsuperscript{12})—can be the most traditional. As intervals belonging to major and minor scales, tritones exist within many diatonic formations including dominant seventh, diminished sevenths, and half-diminished sevenths chords. In the operatic tradition, exclamations set to a tritone have been heard as early as the birth of the genre, in Monteverdi’s Orfeo (see Act IV’s “Ohimè!”). However, when a tritone becomes the basis for a larger-scale, structural shift, it can signal a break with the traditional.

In addition to the examples of tritone shifts we examined in Chapter 1 (Le villi, Act I, number 5, Tosca, I/0/0, Madama Butterfly II/83/0, and Il Tabarro 84/0), a striking occurrence of a tritone shift—at the level of individual harmonies—is the moment in Madama Butterfly at III/26/4, where D major chords alternate with Ab major ones. Here, Sharpless tells the returning Pinkerton to leave and let him tell Butterfly the sad truth. On a slightly larger scale, in La bohème, I/24/0, Puccini alternates the “bohèmes” motive (the opera’s opening theme that also serves as its MPI\textsuperscript{13}) on Db 4/2 and G 4/2, connected by descending chromatic runs, as Marcello, Schaunard and Colline descend the off-stage stairs (where Colline falls).

[Ex. 2.5a] And the final tableau of this opera is divided into two halves by a tritone shift at IV/12/31: as a mirthful Bb major chord shockingly moves to E minor, the high jinks are over when Musetta enters with news of the dying Mimì. [Ex. 2.5b] As we can see from just these brief examples, Puccini has used a tritone shift to indicate tragedy, humor, and the abrupt change from one to the other: once again, a hermeneutic interpretation seems untenable.

\textsuperscript{12} See chapter 1.
\textsuperscript{13} Motivo di Prima Intenzione. See chapter 3.
Augmented triads, Alaleona’s “trifonia,” appear frequently on the musical surface of Puccini’s operas, often as inflections of diatonic triads. One such instance is in *Madama Butterfly*, where we hear fragments of “The Star-Spangled Banner” in C major altered to (or projected onto) a C augmented sonority at II/19/0. [Ex. 2.6a] As a larger-scale organizing plan, expanded augmented triads or major-third interval cycles have already been noted in chapter 1 in *Edgar* (the original version’s Act II, scene 4, and III/45 of the revised one), and in *Manon Lescaut* (Act II/35). Chapter 3 will show a similar dissonant prolongation in the prelude to *La Fanciulla del West*. One additional striking example occurs in the third act of *Turandot*, from III/18/2 until III/23/8, built upon sometimes dissonant pedal points C, Ab and E. The first leg moves from C minor to C9; at III/19/0, Ab minor takes over,

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14 Another major-third cycle on C-E-Ab-C occurs in *Edgar* at 1/10/0.
followed by an Ab9 that leads to E minor. The E minor pedal extends for a remarkable forty-seven bars, ending on a bitonal combination with F major.\textsuperscript{15} [Ex. 2.6b]

Ex. 2.6a-b

a) \textit{Madama Butterfly}, II/19/0

b) \textit{Turandot}, III/18/2ff.

The use of these interval cycles, while not part of a tradition as old as that of pedal points, still has a long pedigree in Italian opera. William Rothstein has shown a pattern of C-Ab-E in the “Largo al factotum” from Rossini’s \textit{Barbiere}; Julian Budden has noted a major-third cycle in Verdi’s \textit{Macbeth} on F-A-Db; and Edward T. Cone individuated another C-E-Ab pattern in Verdi’s \textit{Simon Boccanegra}.\textsuperscript{16}

\textsuperscript{15}The opening of \textit{Turandot} can also be seen as a major-third interval cycle despite the bitonal clashes: We hear a clear F# minor at 1/0/2, D minor in the bass at 1/0/4 and Bb minor at 1/1/2.

Despite its appearance in Russian works in the mid-nineteenth century, Puccini never made use of the whole-tone scale (Alaleona’s “esafonia”) until his 1893 opera Manon Lescaut, with the exception of a single whole-tone chord in Le villi at II/54/14. Although many assume that Puccini adopted the whole-tone scale from the French Impressionist style, Puccini did not see Debussy’s Pelléas until 1903, although he may have had some contact with the French composer’s scores before then.\(^{17}\) Puccini’s operas, from Manon Lescaut (1893) on, are filled with whole-tone sonorities, although these rarely appear in the vocal lines. One such exception is from Tosca, I/48/14, when Cavaradossi describes to Angelotti his future hiding place within a deep well to a partial whole-tone scale. [Ex. 2.7a].

Use of whole-tone elements as tonal “problems” that eventually resolve has already been noted, in chapter 1, at the conclusions of Manon and Madama Butterfly, the end of Tosca’s Act I, and both the opening and conclusion of La fanciulla del West. A complete, expanded whole-tone scale will be discussed in Chapter 9, in regard to Madama Butterfly’s entrance at I/39. Earlier operatic antecedents for the structural use of whole-tone passages do exist however: there are rising keys (C, D, E, F#, Ab) from measure 389 of the Wolf’s Glen scene in Weber’s Der Freischütz (1821) and in Handel’s Orlando (1733) at Act II, scene 11, m. 22, a sequential pattern is repeated along the whole-tone axis of D-C-B-G#—and in 5/8 as well! [Ex. 2.7b]

Occasionally, scholars have labeled Puccini’s use of the whole-tone scale a form of exoticism or Orientalism. In fact, when the resource is utilized in a non-structural way (that is, as a reflection of a particular dramatic moment), it seems rather to indicate

\(^{17}\) For further information on the relationship between Debussy and Puccini, see Mosco Carner, “Portrait of Debussy. 4: Debussy and Puccini,” The Musical Times, 108/ 1492 (June 1967): 502-505.
“disorientalism”—a loss of bearings because of love, fear or another strong emotion. The absence of half-steps in this scale helps create that sense of disorientation, which is one reason it has been so frequently used to represent magical, dream-like contexts, in film as well as opera. A typical moment is, in La fanciulla del West, when Minnie is kissed for the first time, at II/27/2. [Ex. 2.7c]

Ex. 2.7

a) *Tosca*, I/48/14

b) Handel, *Orlando*, Act II, scene 11, m. 22

c) *Fanciulla*, II/27/2
This moment contains whole-tone sonorities both vertically and horizontally.\(^{18}\) The orchestral melody is a projection onto the whole-tone collection of a motive from the opera’s opening prelude, first presented there, at I/0/6 in C major.

Giacomo Setaccioli, one of the few Italian theorists who wrote about his contemporary Puccini, describes a means for understanding the whole-tone scale as derivative of traditional structures.\(^{19}\) He offers an explanation for the following whole-tone chords, shown respectively in Ex. 2.8, as a dominant seventh on D with a raised fifth (a), a (French) augmented sixth on C (b), a leading-tone seventh on E with raised third and seventh (c), a dominant seventh on C with a lowered fifth (d), and an incomplete ninth chord on E with raised ninth (e). Interestingly, he also mentions this last whole-tone complex over a double pedal of C and G, as a sonority used often by Debussy (f): such compound sonorities are readily seen in many Puccini works as well.

Ex. 2.8a-f

a) Giacomo Setaccioli on whole-tone structures

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\(^{18}\) Vito Frazzi, complained, inaccurately, that Puccini’s melodies were diatonic even though underpinned with non-traditional chords, that the horizontal element remained diatonic no matter how non-tonal the vertical. Sanguinetti, “Puccini’s Music,” 240-1: “When Puccini, for example, strings heterogeneous chords together with an inexorably tonal melodic line, it is clear that one cannot speak of the surpassing of tonality but, at most, of a confused attempt at surpassing it.” [Quando Puccini—ad esempio—concatena accordi eterogenei con una linea melodica inesorabile tonale, non si può parlare ancora, evidentemente, di superamento della tonalità ma, casomai, di un’aspirazione confusa al superamento.] This passage is a counter-example to Frazzi’s thesis, as are the chorus parts from Turandot at I/15/0, “Il lavoro mai non langue.”

\(^{19}\) Giacomo Setaccioli, *Debussy è un innovatore?: studio critico estetico corredata da 49 esempi musicali estratti dalle varie opere del Debussy...,* 2nd ed. (Rome: De Santis, 1910), 70-1.
This approach enraged Alaleona: he writes that considering symmetrical divisions of the octave “as incomplete forms or alterations of diatonic chords [is] a very grave aesthetic error, understandable given the vicissitudes of harmonic theory and the mentality of the schools of harmony that do not know how to detach themselves from the past.” But given that so much of Puccini’s technique involved altering basic schemata, it would seem that he might have sided with Setaccioli.

The diminished seventh has been a fixture of traditional harmony for centuries. By Puccini’s time—although he does still employ it on the surface level—it had become a hackneyed signifier of horror or pain. As Casella writes, “It is difficult to calculate how many robberies, rapes, vows, perjuries, assassinations, broken marriages, storms, capital executions and violent deaths of every type, etc, etc., have found their natural expression in this famous chord—for more than a century, until Wagner substituted it with the [half-diminished] seventh.”

Puccini’s most telling instances of the diminished seventh occur in La bohème, to illustrate the mock horror at the death of a parrot (I/14/15), the arrival of the landlord Benoit (I/17/0) and the parody of a duel with poker and fireplace tongs at (IV/11/0). [Ex. 2.9a] An ironic use of the chord may also be seen at the opening of Gianni Schicchi, where a C# diminished seventh appears over an F pedal. But the chord is also used straightforwardly in Edgar (I/9/10) and even as late as Turandot II/19/10. [Exx. 2.9b]

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20 Alaleona, “I moderni orizzonti,” 394. [come forme incomplete o alterazioni di accordi diatonici [...] un gravissimo errore estetico, spiegabile nelle vicende della teoria armonica e nella mentalità delle scuole di armonia che non sa distaccarsi dal passato.]

21 [È difficile calcolare quanti furti, stupri, giuramenti e spregiudi, assassini, mancati matrimoni, temporali, esecuzioni capitali e morti violenti di ogni genere, ecc., ecc. abbiano trovato in quel celebre accordo —per oltre un secolo— la loro naturale espressione — finché Wagner lo sostituì con quello di settima.]
In chapter 1, we looked at examples of the diminished seventh used as a minor-third cycle in *Edgar* at I/37 and at the end of the first act of *Fanciulla.* Additional minor-third cycles can be found throughout his corpus of works, as early as *Le villi,* II/58/0 [Ex. 2.10a] and in *Turandot* (I/15/0). Below is an example from *La Rondine* (II/1/14). [Ex. 2.10b]

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22 In Weber’s *Der Freischütz* (1821), the keys of the Wolf’s Glen scene are based on minor-third-related keys (F# minor at the opening - C minor at m. 50 - Eb major at m. 102 - A minor at m. 236 - C minor at m. 247 - F# min at m. 412), but they are not presented as a cycle.
b) *La Rondine*, II/1/14

Symmetrical cycles are generally credited (or blamed) for loosening the bonds of strict diatonicism. The use of alternate pitch collections dealt another mortal blow. Casella looked to Debussy as a hallowed deliverer from this bondage. He writes, “and then came Debussy and the miracle came to pass. The old dogmatic fortress disappeared in an instant—as if touched by a magic wand. [...] The old limitation of scales to only three finally abolished, Debussyan music set about exploiting—with adolescent avidity—the riches, neglected for centuries, of the Greek, Eastern, whole-tone and Far-eastern scales.”

Puccini, whether he learned of these collections from foreign sources or not, makes good use of them as well. The pentatonic scale and the church modes are most common in his works. Roman Vlad has claimed that Puccini also uses the octatonic scale; but, as noted in chapter 4, the passage he cites from *Le villi*, at II/52/13, is more readily interpreted as three tonal motions from tonic to dominant (Gb to Db/C#; B to F# and E to B) in a pattern of descending fifths. [See Ex. 4.12]. The pentatonic, usually associated with an Asian ambience, is indeed used in *Madama Butterfly* (and evident in the borrowed Japanese tunes “Miasan” and “Suiryo-Bushi”) and *Turandot* (Liu’s “Signore, Ascolta”). However, a
pentatonic melody can also be identified in the thoroughly Western *La rondine* at II/43/0. [Ex. 2.11] If a hermeneutic interpretation were to be attempted here, the pentatonic would most likely suggest a token of innocence: the off-stage song in *La Rondine* is sung by a simple street singer, while the melodies sung by Butterfly and Liú could imply naïveté.

Ex. 2.11 - *La Rondine*, II/43/0

Among the church modes, it is the Lydian mode, sharing a raised fourth degree with the whole-tone scale, that has been used by Puccini most frequently. In *La bohème*, we hear Bb Lydian at II/28/3, when crowd cries out for the approaching parade, and E Lydian in *Tosca*, at III/3/2, in the evocative pre-dawn shepherd song “Io de’ sospiri.” [Ex. 2.12] Again, the use of this collection seems to invite an interpretation of rustic simplicity and innocence.

Ex. 2.12 - *Tosca*, III/3/2

Common to many of these various collections is a certain adaptable interval pattern that could almost be considered Puccini’s “signature”: a tritone plus a whole step—or set class (026) in post-tonal terminology. It can belong to either the whole-tone scale, the

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Lydian mode, the dominant seventh, or the half-diminished seventh chord. As such, it is found implicitly in every one of the scores. But prominent examples where the interval pattern itself is highlighted as a linear string can be identified in the Bb-Ab-E bass line of the opening motive of *Tosca* [Ex. 1.0], and in the openings of the first two acts of *Turandot* [Exx. 1.4j and 2.13a], the latter of which contains the pattern at two bitonal levels. These intervals also appear linearly at the Sheriff’s mention of death in *Fanciulla* (I/31/7) [Ex. 2.13b], in the outer-voice ostinato that accompanies Suor Angelica’s swoon (56/1-3 and 56/10-13) [in the first two measures of Ex. 12.12b], as well as in many other locations. Attraction to this set class may have also influenced Puccini’s choice of authentic tunes for *Madama Butterfly*: the “Echigo-Jishi” contains the melodic string C-E-F♯ when based on A, and “Sakura,” or “Cherry Blossom Song,” when based on D contains E-D-Bb.

Ex. 2.13

a) *Turandot*, II/0/0

![Turandot staff notation](image1)

b) *La fanciulla del West*, I/31/7

![Fanciulla staff notation](image2)
The extended chords of which Puccini was so fond were in evidence from the start. Although the composer had a natural inclination toward these more complex sonorities, the Milan conservatory he attended already had a tradition in place that included eleventh and thirteenth chords, supplied by Bonifacio Asioli, the school’s first director. As Baragwanath writes:

In agreement with Rameau’s theory that all chords were derived from root position triads, by inversion or by the addition of extra thirds, Asioli arranged his harmony examples in a graded series starting with “generators” (generatori), or root position triads upon the degrees of the scale, and progressing through the “first addition” (addizione) or seventh chord, the “second addition” or ninth chord, the “third addition” or eleventh chord, and the “fourth addition” or thirteenth. Each stage in the series was supplemented with additional examples involving chordal inversions (rivolti).

This, then, is another example of a seemingly modern technique with traditional roots.

Another chord with a double pedigree is the half-diminished seventh. Considered from a traditional standpoint, the half-diminished seventh chord can be derived from the upper four pitches of a complete major ninth chord. However, its fame and influence in much of late-nineteenth-century repertoire stems from its identity as Wagner’s Tristan chord. Puccini employed this chord in hundreds of contexts; but it takes center stage, so to speak, at climactic moments. For example, in Tosca, we hear a half-diminished chord, on E, at the moment of Scarpia’s stabbing (II/60/4), which reappears at Cavaradossi’s “Muonio

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26 See chapter 4 for a discussion of these in Le villi.
27 Bonifacio Asioli (1769-1832) was born in Coreggio to a family of artists, and was known for singing and playing at a young age. He studied in Bologna with Padre Martini and in 1799 moved to Milan. His best known theoretical works are Il trattato d’armonia (Milan, 1813) and Il maestro di composizione (op. posth., Milan, 1832). Dizionario Biografico degli Italiani, vol. 4 (1962), s.v. “Asioli, Bonifacio.”
28 Baragwanath, The Italian Traditions, 154.
disperato!” [I die without hope!] at III/12/12. In Suor Angelica, when the heroine cries “la morte è vita bella!” [Death is life made beautiful] at 17/4, we hear the same chord once more, again on E. By this era, the chord had superseded the clichéd diminished seventh as a signifier of extreme emotion, as Casella noted.\footnote{See note 21.}

The half-diminished chord can also be found expanded as a dissonant prolongation in this repertoire. Puccini uses such an organization at the end of his first opera, Le vili:

from a starting point in Db minor, at II/57/20, we hear the “tregenda” theme, followed by motions to E minor, G major and B major, at II/57/28, where the harmony stabilizes until II/58/0. In Madama Butterfly, as well, an expanded inverted version of a Bb half-diminished seventh (Bb-Db-E-G#) can be traced. At I/102/0, with the appearance of the Bonze, an E half-diminished chord begins a motivic passage; ten bars later the same passage is transposed to C#; at I/104/0, the process is repeated on Bb, and occurs once more on G# before the pattern ends at I/106.

\textit{riddle 2}

For all the complexity of Puccini’s scores—filled with multiple tonalities, pedal points, and strings of unrelated harmonies—there are moments when all of that stops, and we hear only a clear unison. If the layers of sound suggest a plurality of times, places or states of mind, the unison fixes the attention on a single event or crucial bit of dialogue.

Puccini once told Domenico Alaleona that “the word—[...] it is enough that it be perceived at a few essential points [...] in those moments, the music becomes subdued.”\footnote{Domenico Alaleona, “Giacomo Puccini” Rassegna Italiana politica, letteraria & artistica (XV/LXXX, January 1925), 19. [La parola [...] —basta che si percepisca in alcuni punti essenziali [...] in quei momenti la musica si attenua.] Sometimes that event is a solo aria. Puccini often begins his arias with unisons, or single notes. These
function on a practical level to create a seamless transition into the opening passage, and to draw attention to the moment; they also have the added advantage of supplying the singer’s first note quite audibly.

Strangely, though, while the unison is almost universally considered the most stable and restful of the consonant intervals, some unisonal moments in Puccini’s operas are filled with enormous tension. After Mimi’s death in *La Bohème*, for example, a single pitch-class A is heard just before the opera's final resolution to C# minor. This note A, as the sixth degree of the C# minor tonic, hints at possible happiness: through a 5-6 motion, C# minor could become A major. However, the A creates tremendous anxiety, and it seems likely that it somehow reflects the tension inherent in the dramatic situation—that Rodolfo does not see Mimi is dead, but the other characters (and the audience members) do. This is one of Puccini’s “essential” points, in which the music must be subordinate to a narrative event.

Other dramatic arrival points that are marked by unisons include Manon’s entrance at I/22/13 to a unison F, and Mimi’s remembering her key at I/27/0 to a unison D, which serves as a common-tone pivot from D7 in G major to the third scale degree of Bb major. In *Il tabarro*, at 57/0, the tonic of a peaceful Ab-major passage becomes the tense unison G# dominant of C# minor, which also marks the start of the tragic second half of the opera.

[Ex. 2.14]

Ex. 2.14 - *Il tabarro*, 57/0
As we have seen in the example above, unisons functioning as common-tones allow for smooth modulations. Common-tone connections between harmonies usually facilitate movements by third-related keys, as in the major- and minor-third cycles we discussed previously. Such transformations are a striking feature of Madama Butterfly, and they are discussed with some detail in chapter 9.

But we can see several of these common-tone shifts in Turandot as well. At I/41/0. In what almost sounds like an appoggiatura, given the sustained bass, we hear a “slide” from an enharmonically notated C# major to D minor, both chords sharing the pitch-class E#/F (These two chords form the bitonal pair heard first at the opera’s opening) [Ex. 2.15a] But just a few bars later, at I/41/6, we hear a slide from E minor to Ab minor (where the common-tone is B/Cb), then after one bar, a move from Eb minor to Gb augmented to Gb major, all sharing the pitch-class Gb. Finally, there is a chain of chords at I/25/0, each of which shares one or two pitches with the previous chord: A minor, F major, D major and B major. [Ex. 2.15b]

Ex. 2.15

a) Turandot, I/41/0

b) Turandot, I/25/0
One outgrowth of this process is the phenomenon of pitch classes extended at length through different tonalities, which is related to the concept of *sonorità*. Pierluigi Petrobelli defines *sonorità* thus: “a specific pitch prolonged by various means of articulation, and considered independently of any harmonic function.” This pitch is tied to vocal tessitura and has associative links to characters. Rothstein follows the lead of Petrobelli, Martin Chusid and others, and argues that Italian nineteenth-century opera places greater weight on the vocal line, differentiating it from bass-centered pieces written in the Germanic tradition.

While Puccini’s harmonies do tend to move by common tone, we would argue that this thesis does not apply in his case for several reasons. First, Puccini’s pitch invariance has often been found to reside in the orchestral parts, not only in the vocal lines, and thus in pitch classes, not individual pitches. Second, the “bass-less” accusations tend to ignore implied harmonic function and prolongations. Lastly, Puccini thoroughly studied the scores of Germanic and other foreign composers and, as we have shown, felt a lifelong attraction to German music and modes of thought.

riddle 3

When René Leibowitz writes “Puccini had to be the man in whom the antithetical elements of Verdi and Wagner would have found their true synthesis,” he refers not only to historical influences, but to compositional approaches that were, in the context of an Italian

Verdi vs. Wagner culture war, often generalized as traditional and progressive. In reality, Verdi was innovative in many respects and Wagner was no stranger to ancient traditions. Nevertheless, this synecdochal binary opposition had currency in Puccini’s time and is a useful entry point for exploring the compound nature of Puccini’s music.

As noted previously, traditional and progressive structures are entwined in Puccini’s music either by indirect or direct conflation;\(^{34}\) Sub-types of these will be labeled innesti and indossi.\(^{35}\) In this section, we explore various means by which these are employed and how they work towards creating a sense of tonal coherence in very dissonant passages—the third riddle.

The most obvious indirect conflation of diverse elements occurs on the musical surface by juxtaposition of styles at the level of a scene. After the rise of the curtain at the opening of Tosca, for example, we hear extremely dissonant, disconnected harmonies, parallel tritones (at I/1/0), and irregular phrase lengths that illustrate the fear and desperation of the escaped prisoner Angelotti. Just a few moments later, however, at I/6/3, when Angelotti hides and the Sacristan enters, we hear an “Allegretto grazioso” set to a regular 6/8 meter, in pure C major. It is difficult to imagine greater contrast. Andrew Davis has examined Puccini’s last four operas in light of this juxtaposition of styles—“stylistic plurality” is his well-chosen phrase—as a dramatic strategy:

his music as a mix of new and old, as familiar and unfamiliar [...] is strategic

because Puccini does more than simply mix the two styles: he systematically

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\(^{34}\) The related concept of superimposition has been applied recently to Stravinsky’s music in Dmitri Tymoczko, “Stravinsky and the Octatonic: A Reconsideration” Music Theory Spectrum 24/1 (Spring 2002): 68-102.  
\(^{35}\) “Innesto” means “graft” and is used here to refer to the insertion of material in a contrasting context. The term derives from a letter from Puccini to Riccardo Schnabl that reads, “Turandot is sleeping. It lacks a big aria in the second act. I need to graft it in.” [Turandot dorme: ci vuole una grande aria al secondo, bisogna innestrarla.] Eugenio Gara, ed. Carteggi Pucciniani (Milan: Ricordi, 1958), 530. “Indosso” is a neologism by Puccini, explained in this chapter.
withholds until pivotal dramatic junctures the most traditional of his musical tokens in order to heighten their effect on his listening audience. He adds, “Much of Puccini’s late music [...] proceeds according to a series of discrete episodes, each articulated with a discrete style and each contrasting with neighboring episodes in such a way to produce obvious musical seams.” We would add that contrasting discrete episodes occur in the composer’s earlier operas as well.

If the examined units of indirect conflation become more localized, one arrives at what has been labeled by numerous scholars and critics as Puccini’s “mosaic” technique. Typical is Ashbrook’s statement: “With La Bohème, Puccini began to use a lapidary technique, constructing an act of carefully wrought and contrasting details, building up a musical mosaic.” An exemplar of the technique as used in La bohème occurs in at I/25/0: the Bohèmes have departed, with a close in the key of Gb major and, as Rodolfo begins to write, the key changes to B major with a new, graceful tune that might indicate his “flowery” thoughts; but this ends abruptly on the dominant, as he puts down his pen and declares in recitative style “I’m not in the mood.” [Non sono in vena.] Immediately after, Mimi knocks and we hear her motive in D major. In sum, there have been three different melodies, in three different keys within a very short space of time, at a distance shorter than a scene. While there are antecedents for this type of quick-change effect in both the Italian and German repertoires, the ubiquitous use of discrete fragments in Puccini’s work is what caught the attention of critics and audiences at the time.

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36 Davis, Il Trittico, Turandot, 2. Davis concentrates this observation mostly on formal issues.
37 Ibid., 21.
39 Verdian reminiscence themes and Wagnerian leitmotives can both appear as fragments, but brief thematic references are also apparent in many recitatives. One interesting example of this is Mozart’s incomplete foreshadowing of the theme from “Non mi dir” during the prior recitative n. 23 “Crudele?” from Don Giovanni.
The “mosaic” metaphor has a long and rather critical history, partially because the technique thwarted traditional expectations of clearly defined set-pieces. Virgilio noted in 1900 that “the whole of this first part of Tosca makes me feel as though I am looking at a mosaic made by a craftsman without a pre-arranged design!”\(^{40}\) Puccini was defended in these days by Monaldi, among others, who railed against the charge of mosaicism: “Such as system as Puccini employs [is] never, in any way, the assemblage of small detached pieces, skillfully superimposed and cemented together.”\(^{41}\) Even Hanslick complained, about La bohème, “The basic feeling of the whole, continually broken up, is thus dissipated in noisy, nervous details.”\(^{42}\) But it is the flexibility of Puccini’s “mosaic” technique that allows the score to more closely follow the dramatic narrative.

Another sort of indirect conflation is what this author has termed projection, a mapping of a recognizable melodic/intervallic string onto a new pitch-class collection. An elementary—and completely traditional—example of this would be a major theme repeated in the minor mode, as occurs in Le villi at I/11/0 and II/47/0 (see Exx. 4.11a and b). More sophisticated types of transformational projection, from one collection to another, have been noted in music of some of Puccini’s near-contemporaries, notably that of Debussy and Stravinsky.\(^{43}\) And, in 1943, Béla Bartók called it “extension in range.” As he put it, in regard to transforming chromatic patterns into diatonic ones, “the succession of chromatic degrees is

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extended by leveling them over a diatonic terrain.” In recent years, Matthew Santa has formalized these types of transformation by creating operations on scale degrees, which he terms “step classes,” that can map onto new positions in a destination collection.

Puccini’s third opera, *Manon Lescaut*, offers a few examples of projection. As seen in Ex. 6.3a, scale degrees 5, 4, 3, 2 of the original G major diatonic theme representing the heroine have been projected at IV/4/13 onto the chromatic aggregate, using G as 0, and transposed up two semitones. In Ex. 6.3b, the first three pitches of the original have been mapped at IV/17/1 onto the whole-tone collection; here, scale degrees 5, 4 and 3 (step classes 4, 3 and 2) remain unchanged in the destination collection, as Eb, Db and Cb are step classes 4, 3, and 2 of the whole-tone scale on G. In Santa’s terminology, Manon’s theme would be transformed in Ex. 6.3a with the operation MODTRANS (7\(^1\), 12, G) T2, and in Ex. 6.3b with the operation MODTRANS (7\(^1\), 6, G).

In *Madama Butterfly*, we can individuate several instances of projection. At II/2/5, as shown in Ex. 9.3, the second act’s opening fugal theme is heard in C# major, and then projected onto the whole-tone scale at the second and third entrances. And at II/18/13, the *Star-Spangled Banner* is projected onto A minor. In *La fanciulla del West*, at III/19/4, we hear a D minor melody in the orchestra repeated three times before becoming projected (and transposed) onto the whole-tone collection. [Ex. 2.16a-b]

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Ex. 2.16

a) *La fanciulla del West*, III/19/4

![Notation Image]

b) *La fanciulla del West*, III/19/10

![Notation Image]

One manifestation of *direct*—rather than *indirect*—conflation is *layering*. This is what Leukel names *Schichten*, and Conati calls “synchronic planes” [*piani sincronici*], in reference to *Il trittico*. Not the layers of a Schenkerian analysis, these represent multifocal moments that usually carry implications of bitonality/polytonality. Any of the examples of bitonality cited previously—except for those from *Turandot*—would show evidence of *layering*.

An even more microscopic investigation of the score brings us to a concept that will be named for a Puccinian neologism: *indossi*. In some unpublished notes for an interview sometime during the creation of *La ronde*, Puccini attempted to define his open-border attitude toward foreign musical influences while simultaneously affirming his Italian roots:

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In art I always followed a great line of Italianness [...] I am against the international school of music.\(^46\) Music is Italian or not! And those like me who have always felt, and still feel, in an Italian way can only deplore a trend or indosso that, to the detriment of our melody, would tear off the wings from the great overseas flights of our musical art. [...] Let us then treasure all the harmonic and technical progress that comes to us from over the mountains and seas, but let us conserve the clarity, the spontaneity and the simplicity that characterize our music.\(^47\)

Looking past the nationalist sentiments—this was written during World War I when Germany and Italy were on opposite sides, and when Puccini had been attacked by Torrefranca for his lack of italianità—the composer is giving us a glimpse of an important aspect of his compositional technique. The word “indosso” does not exist in the dictionary, but carries the sense of “clothing,” as “indossare” means “to wear.” So, foreign harmonic and technical innovations are to be “worn” but without sacrificing [inner] clarity, spontaneity and simplicity.

Here, we interpret Puccini’s “indosso” in a technical way to refer to the direct conflation of musical elements, in which a simple tonal or traditional framework is adorned with complex, even non-tonal, qualities. The two then form a compound in which one is

\(^46\)This is also a reference to Fausto Torrefranca’s recent diatribe against Puccini entitled Giacomo Puccini e l’opera internazionale (Turin: Fratelli Bocca, 1912). Budden describes him as: “chief spokesman for what has become known as the ‘generazione dell’ottanta,’ a group of composers born in the 1880s comprising Alfredo Casella, Gian Francesco Malipiero, and Ildebrando Pizzetti, who set out to recover the glories of Italy’s instrumental past and who regarded the ‘giovane scuola’ as a millstone around the nation’s neck. For Torrefranca opera was by its nature inferior to symphony and sonata [...] reaching its nadir in the works of Puccini, which typify the cynical commercialism of modern bourgeois society.” Budden, Puccini, 336-7.

\(^47\)Frederick R. Koch Collection, Beinecke Rare Book and Manuscript Library, Yale University. [Io in arte ho sempre seguito un grande linea di italianità [...] sono contrario alla scuola dell’internazionalità' della musica. La musica e' Italiana o no! - E coloro che come me Italianamente hanno sempre sentito e sentono non possono che deplorare un andazzo o indosso scolastico che e’ a detrimento alla nostra melodia [...] toglierebbe le ali nei grandi voli della nostra arte musicale all’estero. [...]Facciamo pur tesoro di tutti i progressi armonici e tecnici che ci arrivano d’oltre monte e d’oltre mare ma conserviamo la chiarezza la spontaneita’ e la semplicita' che caratterizzano la nostra musica.]
embedded in the other. Sometimes there are multiple levels of conflation, as in Ex. I.0, the prelude from *Tosca*, in which diatonic chords are placed along a whole-tone axis, which itself ultimately resolves tonally. Another instance of embedded conflation can be seen in Butterfly’s entrance music at I/39/0, shown in Exx. 9.8a-d. Here, it is possible to view the passage as a simple sequential schema with “modernisms” added on: a diatonic 5-6 sequence in Ab Major is projected onto the Ab whole-tone scale, then chromatic passing tones that create secondary dominants are added, and finally additional chromatic passing tones are included in the middle voice creating augmented triads.

In *Turandot* several such *indossi* can be detected. At III/26/15, just before the desperate Liù’s aria “Tu che di gel sei cinta,” is a very dissonant, descending passage that contains parallel tritones in the lowest line, and complex chordal structures above (half-diminished sevenths, a fully diminished seventh, and a French augmented sixth, connected by passing vertical arrangements of Puccini’s “signature”). To top it off, the “Sehnsucht” motive from *Tristan* appears as well, before the entire complex resolves to Bb major. [Ex. 2.17a] If we remove these *indossi* and the chromatic passing tones, however, what remains is a simple sequence of diatonic parallel tenths [Ex. 2.17b]. At a similar moment in *Tosca*, at I/4/9, a desperate Angelotti searches for a life-saving key to very similar strains. Here, the surface of the music presents descending parallel dominant 4/2s (on E, D and C) with chromatic neighbor and passing notes, which flow into a whole-tone scale, ending on E. This passage can also be seen as an elaborated version of diatonic parallel descending tenths (or a fauxbourdon-like series of parallel 6/3 chords), and the entire motion, from E7 to E, as a prolongation of that pitch-class. [Ex. 2.17c]
Ex. 2.17

a) *Turandot*, III/26/15

b) *Turandot*, III/26/15, simplified

c) *Tosca*, I/4/9

Ex. 2.18a shows a passage in *Turandot*, at II/63/6, where the princess realizes she has been defeated, and begs the Emperor to spare her. The surface of the music shows bitonal combination of Db minor+Fb augmented, followed by the same sonority transposed to B, and A. The dissonance is palpable, but underlying it is a simple stepwise descending pattern, Db minor - B minor - A minor, with inserted “back-relating” minor dominants. Puccini’s father Michele, in his counterpoint treatise, gives similar patterns in the section labeled

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48 The diamond-shaped note heads indicate the pitches forming the parallel tenths.
49 This is a Schenkerian term indicating the subordinate position of the dominants to the main stepwise motion.
“movimenti del basso.”

The passage also brings to mind an earlier Puccinian moment when another heroine faces a mortal crisis: the moment occurs in Manon Lescaut, at IV/9/19, just before “Sola, perduta, abbandonata.” Here, we have a similar descending line adorned with minor dominants, but without the modernist harmonic indossi of the Turandot selection. [Ex. 2.18b]

Ex. 2.18

a) Turandot, II/63/6

b) Manon Lescaut, IV/9/19

Puccini’s use of indossi is only one of the several ways that he combines the simple and the complex, the traditional and the progressive; occurring at a deep level of construction, indossi permit the composer to employ musical innovations in ways that still follow established, accessible schemata, and, in effect, remain nominally within the tonal system.

50 Michele Puccini, Corso Pratico di Contrappunto (1846), 3-4. These are transcribed in Baragwanath, The Italian Traditions, 161. See also Deborah Burton, “Michele Puccini’s Counterpoint Treatise” Quaderni pucciniani (1996): 173-181. There is no traditional “movimento del basso” that “rises a fifth and falls a sixth” perhaps because the performer would immediately encounter a tritone in diatonic setting. However, there is an ascending version—“rise a fifth and fall a fourth” [sale di quinta e cala di quarta]—that appears in Michele Puccini’s treatise and elsewhere.
The composer did leave a clue that he thought in terms of *direct* and *indirect conflation*: in a sketch for *Turandot*\(^1\) under the heading ‘Stacco per duettone’ [interruption for the great duet], he wrote the following: “Nel villaggio but with chords and harmonized differently and modern movements and reprises and surprises, etc.” [Nel villaggio ma ad accordi e armonizzato diverso e movenze moderne e riprese e sorprese etc.]. Here, “Nel villaggio” refers to Fidelia’s very diatonic aria from the third act of *Edgar*. In other words, he was planning to interrupt one passage with another (*innesto*), and adorn the simple diatonic melody of the earlier work with new harmonies, rhythms, returns—and surprises (*indosso*).\(^2\)

It is these underlying, simple schemata that, we believe, allow the most dissonant passages in Puccini’s music to be heard as tonally coherent. In this, Puccini stood apart from many of his contemporaries. And his opinion of them was not always positive.

In a letter to his friend Arturo Buzzi-Peccia, Puccini included a poem, part of which, referring to his contemporary collegues, reads:

Poveri crioli  
Fanno pietà  
Fanno armonie  
Piene di nebbia\(^3\)

[Those poor devils / Are pitiful / They make chords / Full of fog.]

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\(^2\) Puccini regretted the failure of *Edgar*, and remnants of that score turn up in later works. The process of disguising previously written passages in the manner described here is an extension of the self-borrowing that is detailed in Giorgio Magri, “Una ricetta di Puccini: ‘rifratture da lavori precedenti’.” In *Critica pucciniana*, 69-93. Lucca: Comitato Nazionale per le Onoranze a Giacomo Puccini, 1976. For a hypothetical realization of this passage, see chapter 13.

We have attempted in these investigations to pierce through some of the harmonic “fog” to reveal elements of the hidden simplicity and clarity that Puccini sought to retain in his works. In the process, we hope to have moved somewhat closer to solving Puccini’s harmonic mysteries.