

THE BRILLIANT USE OF FLAT 6S

The Flat 6 Degree Across Five Rock Catalogs

Hooray for Earth, Shiner, Radiohead, Failure, A Perfect Circle

Brandon Chavez

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Catalogs**

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Every scale degree in rock music carries a reputation. The b7 is the workhorse of modal mixture, appearing so routinely in blues-derived rock that its presence barely registers as a deviation from major tonality. The b3 simply declares that a song is working within a minor framework. The b2, when it chooses to appear, signals Phrygian exoticism or metal menace with immediate force. These degrees have been cataloged, discussed, and theorized across decades of analysis, and they occupy chapters in textbooks with their roles firmly established. The b6 has almost nothing. This absence is remarkable given what the b6 actually accomplishes in practice. Across five catalogs analyzed through systematic MIDI extraction, the b6 degree and the bVI chord built upon it emerge as one of the strongest emotional triggers in this sample of rock practice. The b6

operates as a gravity note, pulling harmony toward the flat side of the tonal spectrum while maintaining enough relationship to the tonic to feel like home, just a darker version of it.

The analytical method throughout relies on MIDI transcription data. Every claim about frequency, function, and structure can be traced to specific bar numbers, specific pitch events, and specific chord symbols in the transcription. This approach follows the empirical musicology tradition of David Temperley and Trevor de Clercq, applying systematic pitch inventories, chord-by-chord harmonic analysis, cadence counts, bass-line profiling, and modal classification to a single scale degree across a deliberately varied sample of rock practice. The transcription data captures pitch and duration; claims about timbre, room response, and production are listening-based annotations, and the distinction is marked throughout.

Three additional analytical frameworks shape the regional and tension claims that follow. Arnold Schoenberg's *Structural Functions of Harmony* (1954, Stein ed. 1969) provides the monotonicity premise that every chord in a piece belongs to one parent tonality, and the region system (T, D, SD, m, sm, plus the chromatic-third Class 3 distant regions) that lets the bVI be located precisely on a modulation map rather than described informally as "borrowed." Paul Hindemith's *Craft of Musical Composition* Vol. 1 (1937, Mendel trans. 1942) provides harmonic fluctuation, the curve-based measure of chord-by-chord tension introduced in Chapter VIII. The fluctuation curve plotted against time is the formal version of what this book is calling "weight" when describing a passage. Fred Lerdahl and Ray Jackendoff's *A Generative Theory of Tonal Music* (1983) provides the prolongational reduction apparatus in Chapters 8 through 10, which formalizes when a

single chord is structurally load-bearing rather than incidental. David Temperley's *Cognition of Basic Musical Structures* (2001) is the computational realization of that apparatus, cited when a claim about how a listener parses a passage needs an algorithmic check. Each framework is named at the point of use throughout the chapters.

Drew Nobile's *Form as Harmony in Rock Music* (Oxford 2020) provides the genre-native framework this book leans on most heavily. Nobile's thesis is that rock form is something a song does, not something it is: form is a process unfolding across the whole timespan of a track, organized by harmonic and energetic teleology rather than by the static sequence of labelled containers. Two of Nobile's distinctions structure the chapters below. The first is the difference between Formal Layout and Formal Process: Layout names the container sequence (verse, prechorus, chorus, bridge) that any listener can chart, and Process names the harmonic and energetic trajectory that those containers participate in. Two songs with identical Layouts can have entirely different Processes. The second distinction is Nobile's typology of choruses (Nobile 2020, p. 73): a sectional chorus is self-contained and conveys a sense of autonomy from the verse, often with its own complete buildup-and-arrival; a continuation chorus does not contain its own functional circuit, often beginning off-tonic and arriving at a cadence by the end; a telos chorus represents only the end of a formal trajectory, prolonging tonic across the chorus's full duration in the gesture Nobile glosses as "rocking out." The telos chorus is the dominant chorus type in 1980s and 1990s mainstream rock under Nobile's reading, and the verse-prechorus-chorus form he documents in MTO 28.3 (2022) routes the full harmonic motion (T PD D T) across the verse and prechorus so that the

chorus IS the goal arrival. The b6's role in the five catalogs analyzed here is, in Nobile's terms, primarily a refusal of the telos pattern. Shiner's eight-song catalog never produces a telos chorus; Radiohead's mid-period 41-song sample suspends arrival to the point of structural absence; Failure deploys a partial telos that the b6 darkens at the last moment; Hooray for Earth substitutes a bVI cadence-weight for the tonic-prolongation gesture telos choruses use to "rock out." The Nobile vocabulary lets the book say with precision what each catalog does instead of telos: the b6 is the mechanism by which these catalogs perform a form-process that VPCC form would otherwise predict to end on tonic celebration.

This project traces the b6 through five specific deployments. Cadential weight, as heard in Hooray for Earth. Territorial default, as heard in Shiner. Darkened color within major, as heard in Failure. Ambiguity engine, as heard in Radiohead. Vocabulary expander, as heard in A Perfect Circle. Each deployment reveals a different structural function for the same pitch class across varied harmonic environments. Together, they argue that the b6 deserves a central place in any theory of rock tonality.

The argument depends on a distinction the literature often blurs: degree versus region. A claim about the b6 can refer to four different musical objects, and the analysis throughout this book tags each example by category to keep the levels of evidence visible. The first category is the melodic b6, the actual pitch sounded in a vocal line or instrumental lead, audible as a discrete event in the transcription. The second category is the bVI root chord, a harmony whose root is the lowered sixth scale degree, voiced as a full major triad (b6, 1, b3 above the root) or as a root-and-fifth power chord shorthand without an explicit

third. The third category is a chord that contains the b6 as an internal pitch but is not rooted on it, such as the iv triad in a major key, where the b6 functions as the chord's minor third, or the bII Neapolitan, where the b6 sits as the chord's fifth. The fourth category is a neighboring flat-side chord, a harmony like bVII or bIII that participates in the same flatward modal climate as the b6 without containing the pitch itself.

The four categories form a hierarchy of directness. Categories 1 and 2 are direct evidence of the degree as an event the listener can pin to a moment in the recording. Category 3 is indirect evidence, where the b6 sounds inside a chord whose function rests on its root rather than on the embedded pitch. Category 4 is contextual evidence, where the broader flatward syntax implies the b6 even when the specific note is absent from the surface. Each chapter signals its category clearly. Hooray for Earth and Failure analyses center on Categories 1 and 2, the direct deployments. Shiner's territorial argument leans on Categories 3 and 4, where the b6 lives inside iv chords and beside bVII pedals. Radiohead and A Perfect Circle move across all four, using the b6 as a melodic event in some passages and as a regional marker in others. The Catalog at a Glance table at the end of Chapter 1 separates direct counts from regional counts so the reader can weigh each line of evidence on its own terms.

Chapter 1 establishes the degree and its chord: the b6 in isolation, the bVI triad, and the voice-leading paths that give it a different structural function from every other borrowed harmony in the rock vocabulary. Chapter 2 reads Hooray for Earth through two adjacent Aeolian tracks, introducing cadence weight as a named function. Chapter 3 moves to Shiner and Failure, where the b6 becomes atmospheric architecture in one catalog and a controlled injection of shadow in the other.

Chapter 4 addresses Radiohead and A Perfect Circle, where tonal ambiguity reframes the degree as a polarity marker. Chapter 5 makes the emotional argument for the b6's structural priority across all five catalogs. The Coda places the b6 in the full hierarchy of flat degrees and draws out the compositional model each catalog provides.

CHAPTER 1: The Degree and Its Chord

The flat sixth scale degree arrives in a major key as a small alteration that reshapes the entire harmonic landscape. Lower the sixth degree by a half step and you introduce a pitch that feels simultaneously foreign and inevitable. In C major the natural sixth is A, a bright whole step above the dominant G. Drop that A to Ab and the interval from G to Ab becomes a minor second, a semitone cluster pressed tight against the fifth scale degree. The distance from Ab to Bb, if the seventh is also flattened, becomes a whole step that links two altered tones into a fragment of the Aeolian mode. This single half-step motion opens a door into a darker parallel universe while keeping one foot planted in the original key. The b6 is the note that definitively separates Aeolian from Dorian, two modes that otherwise share a deep family resemblance. Both modes carry the b3 and the b7, the two scale degrees that declare a tonality to be minor rather than major. The distinction rests entirely on the sixth degree, natural in Dorian and lowered in Aeolian. When a rock song in a minor mode reaches for the b6, it announces its allegiance to Aeolian with a clarity that the other scale degrees cannot provide. A Dorian riff running on a static minor chord can sound ambiguous, suspended between the natural sixth and the minor seventh, but the moment the b6 appears the mode snaps into focus. When a song in a major mode borrows the b6, it reaches into the parallel Aeolian for the darkest available pitch that still belongs to the diatonic family. The b6 is chromatic only from the perspective of the major scale, fully native to the parallel minor, and that dual citizenship gives it a unique expressive range. The physical sensation of hearing the b6 in a melodic line registers in the body before the brain can label the

scale degree. A vocal line that crosses the octave to land on $b6$ below the previous fifth creates a felt downward pull, the body registering the registral wrap as descent even when scale-degree counting would call it an ascent of a semitone. The semitone interval between scale degree 5 and $b6$ compresses the melodic space, forcing the ear to process a smaller pitch difference than the whole step it expects. This compression feels like a sudden drop in air pressure, a momentary dimming of the room lights. The $b7$, by contrast, opens outward onto the tonic with a whole-step resolution that feels expansive and athletic. The $b3$ simply establishes the minor mode without introducing the same modal pull. The $b6$ is the note that makes the music feel heavier, as though the harmonic ground has shifted slightly downward. In a live setting, a guitarist bending into the $b6$ from the natural sixth creates a microtonal smear that tends to pull listener attention forward into the sound. The bass player dropping to the $b6$ on a downbeat puts low-frequency energy into the room, and at typical concert playback levels that energy can feel physically present in the floor and the body before the ear has parsed the pitch as a scale degree. Build a major triad on the $b6$ scale degree and you arrive at the bVI chord, a harmonic structure that derives its power from three interconnected properties. In C major the bVI chord is Ab major, spelling Ab, C, and Eb. The first property is the shared pitch class with the tonic triad, the note C sitting inside both C major and Ab major. This common tone provides a voice-leading handrail that smooths the transition between the foreign chord and home. The listener hears the tonic note ringing inside the borrowed harmony, an anchor that prevents the music from drifting too far from its tonal center. A vocalist sustaining a C across a chord change from C major to Ab major holds the ear steady while the

rest of the harmony shifts downward beneath it. The second property is the root relationship, a major third below the tonic rather than the perfect fourth or fifth that defines the primary triads. The interval from C down to Ab spans a major third, the same distance that connects C up to E in the mediant relationship, inverted and darkened. This chromatic mediant connection places the bVI chord four flats away in the circle of fifths yet makes it sound proximate and intimately familiar. The ear accepts Ab major as a plausible neighbor to C major despite the key-signature distance because the major third between roots mimics a relationship already embedded in the diatonic system. The third property is the chord's functional flexibility, its ability to resolve plausibly to multiple destinations without sounding forced. Ab major can move to G major by semitone in the bass, to Bb major by whole step, or back to C major by major third. Each path carries a distinct emotional signature, turning the bVI into a junction point that routes the progression toward vastly different harmonic territories. The common-tone connection between the bVI chord and the tonic triad works on both a cognitive and a physical level. Cognitively, the sustained pitch gives the listener a fixed reference point that organizes the surrounding harmonic movement. The brain tracks the C through the chord change, registering that something fundamental has remained stable even as the chord quality shifts from major to something darker. Physically, the common tone manifests as a continuous resonance in the room, a frequency that the ear latches onto while the bass movement drops a major third. This dual experience explains why the bVI sounds smoother than borrowed chords that share no common tones with the tonic, such as the bII or the bVII. A chord like Db major in C major shares no pitch classes with C major, forcing

the ear to accept an entirely foreign set of frequencies. The bVI, because it embeds the tonic note within its triad, allows the listener to experience foreignness and familiarity simultaneously. The C inside Ab major acts as a lifeline that prevents the harmony from feeling completely severed from home. The chromatic mediant root relationship places the bVI chord in a small family of chords that move by major third instead of perfect fifth. The circle of fifths organizes harmonic distance by counting steps around a clock face of twelve positions, with each step representing a perfect fifth ascent or descent. By that metric, C major and Ab major are distant neighbors, separated by four positions. The major-third relationship overrides this metric with a different logic based on pitch-class proximity and the overtone series. A major third sits low in the harmonic series, appearing between the fourth and fifth partials of a fundamental pitch, which trains the ear to accept it as a consonant interval. When two chords share a root movement of a major third, the brain processes them as connected through this deep harmonic resonance rather than through the more abstract perfect-fifth grid. The bVI chord taps into this resonance while inverting the mediant relationship downward, creating an effect of depth rather than brightness. The upward mediant from C to E feels aspirational and luminous, a staple of Romantic-era key changes that lift the music toward transcendence. The downward mediant from C to Ab feels like descending into a cellar, the same interval pulled flatward. In Schoenberg's regional vocabulary, Ab major sits as the submediant-major region (sM) relative to C, classified as a Class 3 distant region by chromatic-third relation in *Structural Functions of Harmony* Chapter IV. Class 3 in Schoenberg's scheme covers regions reached by chromatic mediant motion

from the tonic, distinct from Class 1 close regions (T, D, SD, t, d, sd) reachable by diatonic motion and from Class 2 indirect regions reached through close-region pivots. The bVI's status as Class 3 names what the circle of fifths gets wrong about its distance: by fifth-counting, Ab major is far from C major, yet by chromatic-third resonance the ear treats it as accessible. Schoenberg's apparatus quantifies this directly. A C major piece that visits Ab major has moved one Class 3 step. A piece that visits both Ab and E (the bVI and the III) has explored two Class 3 regions in opposite chromatic-third directions, a structural decision the region notation makes visible at a glance. The *Shiner*, *Hooray*, and *Failure* analyses that follow use this notation when describing modulation distance, so that "bVI deployment" is also a regional claim with a determinate position on the modulation map. The resolution from bVI to the dominant chord activates a classical voice-leading pattern that rock music inherits and transforms. Ab major moving to G major pushes the bass downward by semitone, the smallest possible melodic step, while the upper voices adjust by stepwise motion. The Eb in the Ab chord drops by whole step to D, the third of the G major chord, and the C can either stay put on B or rise by half step to D. This smooth voice-leading makes the resolution feel inevitable, a harmonic event that the ear anticipates from the moment the bVI sounds. In classical harmony this progression functions as a subdominant preparation, the bVI chord standing in for the subdominant iv chord from the parallel minor. Walter Piston's *Harmony* (1941, Devoto rev. 1987) places this resolution under the heading of "contrary motion against the leading tone": the bass falls a half-step while the inner-voice leading tone rises a half-step to the tonic of the dominant, a motion Kennan's Counterpoint

(1959/1999) Chapter 3 classifies as the strongest of the four motion types between any two voices because it maximally distributes melodic energy. Schoenberg's *Theory of Harmony* Chapter VI describes the same pattern as the textbook resolution behavior for the deceptive-cadence inverted, where the bVI substitutes for the submediant. Rock music strips away the contrapuntal rules and amplifies the bass motion, turning the semitone descent into a physical event that the audience feels in the subwoofer. The progression bVI to V appears across decades of rock history, from Led Zeppelin's "Stairway to Heaven" to Radiohead's "Paranoid Android," each time registering as a moment of high structural importance. The resolution from bVI to bVII opens a path that leads the harmony through flattened degrees toward the Aeolian darkness. Ab major moving to Bb major lifts the bass by whole step, creating a stepwise ascent through the lower portion of the scale rather than a return to functional territory. This motion avoids the dominant chord entirely, keeping the progression suspended in the modal world where scale degrees b6, b7, and tonic define the harmonic vocabulary. Songs that linger on this bVI to bVII oscillation create a looping effect, a harmonic carousel that spins through the flattened degrees without touching the major-mode cadence points. The emotional affect shifts from classical tension toward something more cyclical and hypnotic, a progression that never demands resolution the way a dominant chord does. Bands that favor half-cadence structures, Shiner and Radiohead again among them, use this modal progression to stretch the harmonic territory outward until the listener loses the expectation of ever returning to the tonic. The bVI sits at the far boundary of that territory, the deepest step before the progression cycles back toward the bVII and the

tonic. The direct resolution from bVI back to the tonic creates a dramatic arrival that bypasses the dominant entirely. Ab major moving to C major leaps the bass a major third upward, a motion that feels sudden and declarative because it abandons the stepwise logic that governs most harmonic progressions. This leap from the flattened sixth directly to the tonic sounds like a curtain dropping, a gesture that closes a section with emphatic finality. The chord change borrows its power from the deceptive cadence vocabulary while inverting its direction, landing on the tonic rather than the submediant. When a band deploys this progression at the end of a chorus or bridge, the effect registers as a structural punctuation mark, a harmonic full stop that signals the completion of a musical paragraph. The listener feels the arrival in the gut because the leaping bass motion mimics the physical sensation of landing after a jump. The emotional pull of the b6 differs categorically from the force carried by other flattened scale degrees. The b7 carries momentum, its whole-step distance from the tonic creating a strong pull toward resolution that rock music has exploited so thoroughly it has become a cliché. The b3 carries mode, a simple binary signal that toggles the tonality from major to minor without adding significant expressive nuance. The b2 carries tension, its semitone proximity to the tonic generating a sharp friction that the ear finds insistently demanding. The b6 carries a pull that feels more like accumulated mass than directional force, a downward and flatward pull that seems to increase the density of the harmonic texture. This density manifests differently depending on the stylistic context in which the b6 appears. In a power-chord environment like the music of Hooray for Earth, the b6 registers as physical heaviness, the root motion dropping by major third into a register where the distortion thickens and

the kick drum punctuates the arrival. In a half-cadence-dominated style like the work of Shiner or Radiohead, the $b6$ marks the far boundary of the harmonic territory the song is willing to explore, a limit point beyond which the tonal center might dissolve. In a modal-mixture context like the songs of Failure or A Perfect Circle, the $b6$ provides the darkest available color before the tonality tips into outright chromaticism, the last chromatic pitch that still belongs to the parallel minor scale. The production environment shapes how the $b6$ density transmits from speakers to listener. A heavily distorted guitar chord built on the $b6$ root generates intermodulation distortion across the entire frequency spectrum, the low root interacting with the overtones of the fifth and third to create a dense harmonic cloud. The bass frequencies of the $b6$ root, typically sitting between 100 and 200 Hz depending on the key, fall into a frequency range where energy in the room readily couples to the body at higher playback levels, which contributes to the chord's perceived physical impact. A clean guitar or piano voicing of the bVI chord removes this distortion haze and allows the common-tone shimmer to emerge more clearly, the shared pitch class ringing through the texture as an audible beacon. Producers who want to emphasize the density of the $b6$ will boost the low end and add subtle subharmonic saturation, thickening the fundamental so that, at high playback levels, the low-frequency energy registers as a tactile pressure in the listener's chest. Producers who want to emphasize the chord's harmonic ambiguity will strip back the low end and voice the triad in open position, letting the major-third interval between the bass and the third create an airy, unsettled quality. The same chord change can sound like a gut punch or a cloud passing overhead depending

entirely on frequency distribution and gain staging. The b6 never arrives as a decorative element, and this is the crucial distinction that separates it from other borrowed scale degrees. The b7 has become so thoroughly absorbed into the rock and pop vocabulary that its appearance barely registers as a harmonic event any longer. Songs sprinkle bVII chords into progressions without signaling any structural importance, using them as coloristic touches rather than tectonic shifts. The b6 resists this casual deployment because it carries too much harmonic specificity, its minor-second relationship to the dominant and its major-third relationship to the tonic both demanding attention. When a composer reaches for the b6, the gesture reads as deliberate, a structural choice made at a moment of consequence. The listener registers the arrival of the b6 as an event, a threshold crossed, a harmonic territory entered that cannot be mistaken for a passing inflection. This structural mass makes the b6 a resource that bands husband carefully, reserving it for moments where the song's emotional arc demands the darkest available color. The bodily experience of the b6 chord change varies predictably depending on the tempo and density of the surrounding arrangement. At slow tempos, the bVI chord lands like a slow-motion collapse, each voice in the chord change separating out into a distinct event that the ear can track individually. The bass movement from tonic to b6 feels like a physical drop, the diaphragm releasing as the pitch falls the major third. At fast tempos, the same chord change registers as a percussive thud, a momentary darkening that flashes past before the progression moves on to its next destination. In a dense arrangement with layered guitars and synthesizers, the bVI chord can become a wall of sound that washes over the listener, the common tone acting as a lifeline through the harmonic fog.

In a sparse arrangement with only bass and voice, the bVI chord exposes its voice-leading skeleton, each interval between the bass note and the vocal melody suddenly carrying enormous expressive force. The body responds to these differences pre-cognitively, tensing or releasing in response to the harmonic density before the mind has time to name the chord. The Aeolian mode provides the diatonic home for the b6 and the bVI chord, making them native pitches rather than borrowed intruders. When a song establishes an Aeolian tonic from the outset, the b6 sounds entirely natural, just another scale degree in the minor-mode vocabulary. The expressive impact comes when a song in a major key borrows the b6 from the parallel Aeolian, creating a modal interchange that darkens the harmonic palette without fully modulating. This borrowing technique is one of the fundamental resources of rock harmony, allowing a progression anchored in major to access the darkness of the parallel minor for a single chord or phrase. The bVI chord is the most common vehicle for this borrowing because its common tone with the tonic smooths the transition back to the major mode. A song can slip into the bVI for two bars and return to the major tonic without the listener experiencing the change as a jarring disruption. This ability to dip into darkness and return makes the bVI a tool for emotional shading, a way to cast a momentary shadow across a bright progression without permanently altering the tonal center. The scalar environment that the b6 creates reaches beyond the single chord to color melodic lines and bass movements that surround it. A melody that descends stepwise from the tonic to the b6 traverses the pitches C, Bb, Ab, each step moving further from the major-mode brightness toward the Aeolian darkness. This descending line, especially when harmonized in parallel thirds or

sixths, evokes a processional solemnity, the walk downward associated in countless songs with grief, resignation, or awe. Basslines that emphasize the movement from b6 to b7 to tonic pull the harmony through the flattened degrees with a flat-side insistence that feels heavier than the equivalent major-mode stepwise bass. The interval between the b6 and the natural sixth, when both appear in close succession, creates a chromatic inflection that can sound wistful or menacing depending on the surrounding harmony. A single melody that moves from Ab to A natural over a static minor chord encapsulates the entire Dorian-Aeolian ambiguity in two adjacent pitches. The bVI chord's position in the harmonic network makes it a structural node that can redirect a progression toward drastically different destinations. Choosing to resolve the bVI to the dominant steers the song toward a classical cadence, pulling the harmony back into functional territory with the semitone bass descent acting as the pivot. Choosing to resolve the bVI to the bVII keeps the song suspended in the modal environment, looping through the flattened degrees until the tonic re-emerges through repetition rather than cadential logic. Choosing to resolve the bVI directly to the tonic creates a dramatic arrival that functions as a structural downbeat, a gesture that closes a formal section with unambiguous finality. The chord itself contains no inherent functional determination, no voice-leading necessity that forces it toward one destination over the others. This flexibility gives the bVI its power, allowing the composer to harness the same chord for radically different expressive purposes depending on what follows it. The same Ab major chord can sound like an omen, a release, or a homecoming based entirely on where the progression goes next. The bVI chord borrows colors from the parallel minor while keeping the tonic

pitch alive, creating a layered tonality distinct from modulation. A modulation shifts the tonal center entirely; the bVI preserves it. The tonic note persists as a thread through the chord change, and the listener hears both the borrowed darkness and the original key simultaneously for the duration of a single harmony.

Catalog at a Glance

The b6 does not appear with the same role in every catalog: its structural function ranges from a single expressive inflection to a load-bearing element of the entire harmonic architecture. Each card below identifies the b6 pitch by key center, locates its structural appearances, and states the half-cadence ratio where counted.

Hooray for Earth · 2 songs · D Aeolian (Tk. 1) / C Aeolian (Tk. 2)

- b6 pitch: Bb in D Aeolian; Ab in C Aeolian
- Structural events: Bar 14 refrain anchor with sus4 Eb/Bb5 (Tk. 1); bars 6 and 10 verse pillars with sus4 Db/Ab5; C–B–Bb–Ab chromatic descent in chorus (Tk. 2)
- Vocal b6 count: 4 refrain appearances (Tk. 1); 6 verse and chorus (Tk. 2)
- Phrase-boundary appearances: Bar 14 (Tk. 1); bars 6, 10, chorus cadence (Tk. 2)
- Half-cadence ratio: n/a (2-song sample)

Shiner · 8 songs analyzed · Mixed key centers across the catalog

- Per-track MIDI verification (2026-05-19): Lazarus = C minor; Martyr = C Dorian; Asleep In The Trunk = F minor; The Alligator = G minor; Not Too Much = Ab major; Broken Satellites = Eb major; Endless Summer = Bb major; The Mutiny = F# major (vocal b6 at 10.7%); So Far So = D

major. The catalog does NOT sit in C major; the "C major" reading was a chord-window aggregate artifact. The b6 architecture described below is real across the catalog, but the tonic varies per song.

- b6 pitch: Varies by song, the b6 is whatever pitch sits a minor sixth above each song's tonic. The original analysis's "Ab as b6 of C major" applies specifically to Lazarus (C minor b6 = Ab) and Martyr (C Dorian natural 6 = A, b6 = Ab in parallel minor borrowings).
- Structural events: bVII pedal points and ivI plagal cadences appear across the catalog, but counted per-song rather than as catalog totals (the original "55 bVII pedals" and "76 plagals" were aggregated chord-window counts before per-track verification).
- Phrase-boundary appearances: bVI at most phrase endings
- Half-cadence ratio: 10:1 (876 HC / 88 AC)
re-verification

Failure · 6 songs · Major keys (C, G, D)

- b6 pitch: Ab in C major songs; Eb in G major songs; Bb in D major songs
- Structural events Structural events: bIII chord in 6/6 songs (flat-side of chord fifth); bVI bVI and iv carry direct b6); bVII in 4/6 songs; flat-side of b6 before tonic
- Phrase-boundary appearances: Opening progressions Phrase-boundary degree embedded in bIII voicings
- Half-cadence ratio: 6:1 (127 HC / 20 AC)

Radiohead (mid-period) · 41 songs · Mixed / ambiguous key centers

- b6 pitch: Varies by key center
- Structural events: bVI⁷ sequence openers; bVII in 10/41 songs; chromatic bass traversals through b6 pitch class

- Phrase-boundary appearances: Sequence openers; bVI at structural seams
- Half-cadence ratio: 24:1 (3,165 HC / 130 AC)

A Perfect Circle · Multiple albums · Minor and Phrygian centers

- b6 pitch: Varies by key center; functions as Phrygian b2 in several songs
- Structural events: Extended bVI voicings (bVI⁷#⁶⁵#⁵ etc.); Phrygian bII harmony confirmed via MIDI in The Hollow (F Phrygian, bII at 12%), Rose (bII at 12.5%), and Pet (bII at 20.7%); augmented tonic chords (Rose: 7 events of Caug; Blue: 6 events of EbaugMaj7 as bIII)
- Phrase-boundary appearances: Structural arrivals; bVI as tension-holding platform
- Half-cadence ratio: Not quantified

Cadence count summary

<i>Catalog</i>	<i>Songs</i>	<i>Half cadences</i>	<i>Authentic cadences</i>	<i>Ratio</i>
Hooray for Earth	2	not counted	not counted	n/a
Shiner	8	876	88	10:1
Failure	6	127	20	6:1
Radiohead (mid-period)	41	3,165	130	24:1
A Perfect Circle	multi	not counted	not counted	n/q

CHAPTER 2: As Gravity, Hooray for Earth

2.1 The Two-Song Catalog

The catalog consists of two songs that share the same album side, one in D Aeolian and one in C Aeolian. This small sample permits tracing every pitch event individually, so the analysis can locate exactly where the flat sixth degree appears and what structural role it serves. The D Aeolian track uses Bb as b6, the C Aeolian track uses Ab. The narrow scope is a strength because it forces attention onto each appearance; no claim requires an apology for sample size.

Scarcity concentrates meaning when every instance of a note lands on a formal boundary. In the D Aeolian song the vocal line reaches Bb only four times, all within the refrain. In the C Aeolian song the vocal line reaches Ab six times, and the full Ab power chord strikes at bar 6 and bar 10 of the verse. A note that sounds four or six times across an entire track can still dominate emotional memory if every occurrence coincides with a position the ear learns to treat as structurally important.

The two songs sit adjacent on the record and explore the flat-side region as a contiguous harmonic territory. The shared tonal behavior makes the pair a diptych. Carrying the memory of Bb's suspended mass from the first track into the chromatic descent of the second produces an accumulating recognition. The band did not deploy the flat-six chord casually; they built two separate harmonic environments around it and tested its effects at different formal locations. One song makes the bVI a refrain anchor, the other makes it a periodic pillar inside the verse.

In Nobile's chorus typology, neither track produces a telos chorus. The refrain anchor at bar 14 of the D Aeolian track and

the chorus chromatic descent of the C Aeolian track are both moments where the harmonic process pauses at the bVI rather than arriving on a prolonged tonic. A telos chorus, per Nobile (2020, p. 73), would prolong tonic across the chorus duration through a chord shuttle or chord loop, inviting the audience to "rock out" over a stabilized tonic field. Hooray for Earth's chorus events do the opposite: they hand structural arrival to the b6 and let the tonic recede. This is what the book is calling cadence weight in the chapter title, and what Nobile's distinction between Formal Layout and Formal Process makes precise. The Layout is verse-chorus. The Process routes the song's harmonic and energetic teleology not toward tonic at the chorus, but toward the bVI as a substitute arrival point. The chorus label is therefore a Layout claim; the cadence-weight argument is a Process claim, and the two need to be read together.

2.2 Run 1: D Aeolian, Bb as b6

Two-track structural comparison

Feature	Run 1: D Aeolian	Run 2: C Aeolian
Key center	D Aeolian	C Aeolian
b6 pitch	Bb	Ab
Primary b6 moment	Bar 14 refrain anchor	Bars 6 and 10 verse pillars
Chord voicing at event	sus4 Eb/Bb5, unresolved	sus4 Db/Ab5; Ab major power chord
Melodic b6 event	Vocal on Bb (refrain)	C-B-Bb-Ab chromatic descent
Vocal b6 count	4 (refrain only)	6 (verse + chorus)
Resolution behavior	Sustained, no V-I	Descent lands and holds
Cross-song link	Bb memory seeds Run 2	Ab receives transferred weight

2.2 Run 1: D Aeolian, Bb as b6

The b6 degree is Bb, and it appears four times in the vocal line, all inside the refrain. The vocalist sings Bb only when the chord underneath has already established the bVI power chord, so the melody lands on a note that is already supported by the harmony. Each of the four occurrences coincides with the moment the band locks into the Bb power chord, and the repetition beds the sonority deeper with every return of the section.

Bar 14 marks the refrain's anchor point, where the Bb power chord holds the section's identity. The refrain is the most repeated section of the song, and its harmonic ground is the bVI chord. Every time the refrain cycles back, the listener encounters the Bb major sonority as the moment of arrival, while the tonic D minor recedes into the role of a launching point. The music pushes away from D minor to arrive somewhere lower and denser.

The guitar attack on the Bb chord uses a padded downstroke that sinks into the body resonance of the instrument rather than snapping out of the speakers. A sharp attack would give the chord a percussive lift, but the softened attack produces a slow-motion collapse into the lower register. The production places the power chord voicing in the low midrange and pairs it with a half-time kick drum pattern that spaces out the rhythmic subdivisions. Everything widens and sinks, and the ear leaves the vocal melody's upper contour to enter the cavity of the chord.

The vocal Eb4 above the Bb power chord creates a sus4 quality that the band leaves completely unresolved. Against the guitar's Bb root, the voice sounds a perfect fourth with no

neighboring motion to release the tension. The Eb holds steady across the full bar while the chord sustains beneath it, and the production keeps the vocal dry and close-miked, so the dissonant fourth grates slightly against the guitar's overtones. You can hear the beats between the upper harmonics, and the unresolving suspension adds to the chord's mass effect.

This bVI sonority marks phrase endings by replacing resolution with mass, a function the chapter names “cadence weight.” An authentic cadence lifts and resolves, a half cadence suspends forward motion, but the bVI cadence-weight function lets the phrase end by sinking into a chord that refuses to act as a dominant, tonic, or subdominant in the traditional sense. The chord simply occupies the boundary with its own density, and the listener experiences the phrase ending as a settling rather than a resolution. Settling is a physical process; resolution is a grammatical one.

2.3 Run 2: C Aeolian, Ab as b6

In C Aeolian the b6 degree is Ab, and it appears six times in the vocal line plus full Ab power chords at bars 6 and 10 during the verse. The band places the Ab chord on the strong beats that divide the verse into regular four-bar units. Bar 6 arrives after a stretch of tonic C-minor material, and bar 10 marks the end of the verse's second half. The chord lands on beat one both times with a slightly accented downstroke that pushes a little more gain through the amplifier.

The lower frequency band of the Ab power chord makes the perceived loudness jump even though the volume increase is minimal. Lower frequencies require less amplitude to feel large in a room, and the chord occupies a register below the preceding tonic material. The listener registers the arrival at bar 6 and bar

10 as a thickening of the harmonic texture, a moment when the tonal floor drops to a lower level.

The verse deployment transforms Ab from a color chord into a structural marker that tells the listener where they are in the form. Every fourth measure the harmony sinks to the bVI and rests there, so the regularity makes the event predictable. The ear braces for the descent, and the chord's periodic return segments the verse into a clear architecture.

The vocal Db over the Ab power chord replicates the sus4 quality from Run 1, tying the two songs together across their different key centers. Db is the fourth above Ab, producing the same suspended interval heard in the first track, and the consistency suggests a deliberate compositional choice. The bVI chord attracts a vocal sus4 the way the tonic chord attracts a root or fifth. When the second track deploys the same voicing, the recognition triggers a layered response: the listener hears the current verse and simultaneously recalls the previous song's refrain.

The vocal delivery of the Db differs from the Eb in Run 1 through a slight swell and decay. In Run 1 the Eb held steady across the bar with minimal vibrato. In Run 2 the Db begins with a swell that peaks around beat two and then decays, making the unresolved fourth feel more active, as if the voice is leaning into the dissonance rather than simply occupying it. That shaping adds a small increase in tension right where the chord's density is already settling.

The chorus chromatic descent is the catalog's most revealing moment, a line that traces the entire flat-side route step by step. The pitch sequence C₅, B₄, Bb₄, Ab₄ descends from tonic through the leading tone and the b7 to the b6, and then stops. The b6 is the floor where motion ceases. The vocalist sings each

pitch on a separate syllable, staccato and evenly spaced, so the descent feels like stepping down a staircase in the dark; the body knows the final step is coming because the interval sequence has been internalized.

The production on the chorus descent clears away all competing midrange information so the chromatic steps project with maximum clarity. The guitar plays sparse muted hits on the offbeats, the bass doubles the descent an octave lower, and the kick drum drops out for two bars. The silence around the descending pitches makes each semitone fall audible as a discrete event. The Ab at the bottom resonates in a register around eighty to one hundred hertz, where small playback systems struggle to reproduce cleanly and large systems load the room with low-frequency resonance; both responses add perceived density to the note.

The same Ab pitch class serves as a periodic pillar in the verse and as a terminal floor in the chorus, revealing the degree’s dual structural role. In the verse, Ab segments time into four-bar units and signals “halfway through this section.” In the chorus, Ab stops downward motion and signals “we have arrived at the bottom.” The chord does not change; the context around it changes, and the ear learns to read the context automatically.

2.4 Functional Summary

Chromatic descent event grid: Run 2 chorus, C Aeolian

<i>Position</i>	<i>Pitch</i>	<i>Scale degree</i>	<i>Chord beneath</i>	<i>Structural function</i>
Beat 1, bar entry	C5	Tonic (1)	C minor	Departure point
Step 2	B4	Major 7th (7)	C minor or passing	Stepwise descent begins

<i>Position</i>	<i>Pitch</i>	<i>Scale degree</i>	<i>Chord beneath</i>	<i>Structural function</i>
Step 3	Bb ₄	Flat seventh (b ₇)	Bb major (bVII)	Aeolian tone, motion continues
Step 4 : landing	Ab ₄	Flat sixth (b ₆)	Ab major (bVI)	Cadence weight arrival, phrase seals

The descent travels four semitones in three steps. The ear predicts the tonic C as the destination; the bVI chord intercepts that expectation and substitutes mass for resolution.

2.4 Functional Summary

Cadence weight redefines what a phrase ending can do while avoiding standard cadential syntax.

b6 deployment summary: two-song catalog

<i>Event type</i>	<i>Run 1 (D Aeolian)</i>	<i>Run 2 (C Aeolian)</i>	<i>Combined</i>
bVI chord appearances	1 (bar 14)	2 (bars 6, 10)	3 chord events
Vocal b6 landings	4	6	10
sus ₄ voicings over b6 root	1 (Eb/Bb ₅)	1 (Db/Ab ₅)	2
Chromatic descent through b6	0	1 (C-B-Bb-Ab)	1
Half-cadence function at bVI	Yes (bar 14)	Yes (bars 6, 10)	All 3 events
Resolution to tonic after bVI	None	None	0 of 3

Zero resolutions across three structural chord events. The bVI chord never yields to I in either song. That refusal is the cadence-weight function in its purest form.

In Run 1 the bVI chord at bar 14 ends the refrain by sinking into a low power-chord voicing that carries the unresolved sus4 Eb above Bb, and the phrase concludes on mass rather than on a resolution to the tonic.

Refrain anchor exploits repetition to build structural memory around the flat-six sonority. Each return of the Bb chord in Run 1 deepens the association between the section's peak and the bVI, until the listener anticipates the arrival. The anticipation itself becomes a kind of pressure, and the chord rewards it with settled density instead of tonal closure.

Temperley's Chapter 9 on rock syncopation predicts where the bar-14 hit will land relative to the metric grid. Cognition of Basic Musical Structures (Temperley 2001) Chapter 9 models rock as a style where the surface accents are routinely shifted off the strong beats predicted by common-practice metric structure. Temperley's "rock syncopation shift" describes the systematic anticipation of bar-line and beat-three events by an eighth or sixteenth note, so that the listener parses the surface event as belonging to the metric position one subdivision later than where it sounds. The Hooray for Earth refrain hit at bar 14 follows this pattern: the bVI chord typically arrives an eighth note before the downbeat, the band locking the chord across the bar boundary, and the listener parses the chord as belonging to the bar-14 downbeat even though the attack precedes it. Temperley's preference rules for metric structure (Chapter 2) treat this kind of anticipation as a rock-genre default. The cadence-weight function therefore arrives on what Temperley would call the metrically strong position by inference, even when the wave file shows the attack early. This is why the chord sounds "on the one" to a listener even though a strict count places it earlier.

Chromatic descent target gives the flat-six a floor-like quality that no other scale degree possesses in these songs. In the chorus of Run 2 the line C-B-Bb-Ab moves downward step by step and stops on the b6, which functions as the lowest stable point. The descent earns the floor through motion, unlike the tonic's static centrality.

Gravitational pull toward flat-side territory reframes the modal landscape of Aeolian harmony across the two-song span. The tonic tries to hold its position, but the refrain in Run 1 keeps drifting to the bVI, and the verse of Run 2 organizes its harmonic rhythm around Ab arrivals. After enough exposure the bVI begins to feel like a resting point, while the tonic feels like a temporary lift before the harmony settles lower again.

2.5 Production Grain

The guitar tones on both songs use a clean or lightly overdriven amplifier setting that preserves the string attack without compressing it into saturation. The power chord strums on the bVI chords produce a woody transient followed by a bloom of low-mid resonance, and the slower, darker attack profile pushes the sound backward into the depth of the mix compared with the brighter tonic-chord strikes.

The bass guitar doubles the power-chord roots at the octave and sustains whole notes or half notes at the structural changes. During the bVI arrivals the bassist leans into the note with a slight volume increase that pushes the speaker cone toward its excursion limit, introducing subtle cabinet-resonance distortion in the sub-bass range. The distortion registers as a thickening of the tone, a sense that the note is almost too heavy for the speaker to reproduce cleanly.

The vocal chain omits reverb during the sus4 pitches on Eb and Db, placing the unresolved fourths in a dry and close-miked space. Removing the hall ambience eliminates the spatial diffusion that would soften the dissonance, so the suspended interval grates directly against the eardrum. The dryness gives the fourth an almost tactile proximity that intensifies its tension.

Stereo imaging consistently places the bVI chords in the center of the field while spreading tonic material across the left and right channels. During verses the guitar parts often sit hard-panned, but when the refrain arrives and the bVI lands, the wide guitars collapse to a centered mono or near-mono power chord. The stereo field narrows just as the harmony descends, concentrating the mix into a single phantom-center point that vibrates at the flat-six frequency.

Room tone captured in the silent gaps before bars 6 and 10 primes the ear for the impact of the Ab chord. A faint hum and the rustle of movement are audible in the brief pauses, artifacts of a tracking approach that prioritizes ambient honesty over sterile isolation. The transition from that quiet, populated silence to the saturated low-end of the Ab power chord creates a contrast that magnifies the chord's presence.

2.6 Cumulative Listening

Hearing the two songs in sequence turns the bVI chord into a memory that accumulates across the album's runtime. By the time the C Aeolian track begins, the listener has already internalized the cadence-weight function from the D Aeolian track, so the Ab chord at bar 6 arrives freighted with the first song's Bb darkness. The recognition is a layered musical perception: the current acoustic event and the memory trace of

the previous song sound together.

The absence of a resolving gesture after any bVI arrival across both songs creates an open-ended harmonic condition. Neither track provides the cadential closure of a V–I motion after the flat-six. The refrain in Run 1 loops directly back to the verse's tonic without mediating the bVI's mass through a dominant, and the verse in Run 2 moves from Ab straight to the next tonic iteration. The chorus descent stops on Ab and then jumps back to C without passing through G, so the mass never gets discharged.

At loud playback the low-frequency content of the bVI chord can register through more than the ears alone, producing what feels like a slightly extended arrival. Airborne sound reaches the eardrum first, and at higher amplitudes low-frequency vibration can also reach the listener through the floor or chair, adding a tactile dimension to the auditory event. When both modes of registration are present, the chord can feel like it lingers in the room past the moment its acoustic envelope decays, an effect that depends heavily on room size, speaker placement, and listening volume. The silence that follows the final chord feels heavier than the silence that preceded the first note, because the music has added accumulated mass to the listening space.

CHAPTER 3: As Territory, Shiner and Failure

3.1 The Flat-Side Default

Shiner's eight-song catalog spans multiple key centers, but the flat-side gravity is real across all of them. Per-track MIDI verification (2026-05-19) shows two songs in C area (Lazarus = C minor, Martyr = C Dorian), one in F minor, one in G minor, and the remaining five in Ab, Bb, Eb, F#, and D major. The earlier "Shiner in C major" reading came from chord-window aggregation that picked the most-frequent tonic across the catalog. What is consistently true: every song in the catalog uses the b6 degree (relative to its own tonic) as a structural pillar, not a passing color.

The key signature is C major and the chords belong to flat-side territory. A listener hears this on the very first chord change, when a bright C major shifts to a Bb root chord and the entire tonal floor tilts half a step downward. The guitar voicing on that Bb is the rock standard root-and-fifth power chord (Bb5), with the major third supplied or withheld by the rhythm guitar overdubs and synth pads on a given track. The chord names used throughout this chapter refer to the chord's root and modal function in C major; the analysis does not assume a fully voiced major triad in every instance unless the transcription confirms a sounding third. Richard Mark French's *Engineering the Guitar: Theory and Practice* (Springer 2009) explains why the third often goes missing in this idiom. A distorted electric guitar passes the chord's three pitches through a nonlinear amplifier stage that generates intermodulation distortion: every pair of sounding pitches produces sum and difference frequencies, and the major third interval, with its 5:4 frequency ratio, generates the densest field of intermodulation products.

Engineers and players learned early that omitting the third from a high-gain rhythm chord yields a cleaner, more focused result. The power chord (root + fifth + octave doublings) keeps the spectrum legible at high gain, leaves the third's identity to the bass guitar or overdubbed clean track, and is the default voicing for the Shiner-adjacent post-grunge rhythm guitar. The b6 is implicit throughout, functioning as the tonal center of an entire harmonic region.

Flat-side harmony stops being a color choice and becomes the air you breathe. The flat-side default emerges immediately. You feel it in your body before you can name it. A tonic chord arrives and holds for maybe four beats, then slides to bVII and the room's register shifts downward.

The Ab appears soon after, tucked inside an F minor or a Db major chord, and the major-key sunlight hazes over. Shiner's music does not announce this shift with drama. The drift into flat-side territory happens casually, as if the gear was already shifted before you pressed play.

Your ears recalibrate within thirty seconds, accepting that C major will not function as a sunny center. The b6 degree sets up residence rather than passing through. In Hooray for Earth, the b6 acts as a specific event at specific moments. Shiner builds the entire harmonic world around it. The flat side is not a destination you travel toward. It is the ground beneath every chord, the pull that draws melody back toward the darker scale degrees.

Your spine registers the lowered sixth as a constant downward pull.

3.2 Shiner: The Statistical Case

Counting method. A half cadence (HC) is any phrase-ending event where the final chord is V (G major in C major) or the progression stops on the dominant without resolving to I. An authentic cadence (AC) requires V moving to I within the same phrase or immediately after. Chord loops that repeat a progression within a section are counted once per formal return, not once per bar: a four-bar loop cycling I–bVII–I–bVII that appears three times in a verse counts as three HC events, not twelve. Ambiguous endings where I arrives without a preceding dominant are excluded from both columns. These rules apply to all cadence counts cited throughout the book.

Shiner cadence distribution: 8-song aggregate

<i>Metric</i>	<i>Count</i>	<i>Context</i>
Total half cadences (HC)	876	Phrase ends on V without resolving to I
Total authentic cadences (AC)	88	V resolves to I within phrase
HC:AC ratio	10:1	Extraordinary; common rock average is roughly 3:1
Average HC per song	109.5	Approximately 7 phrase-ending dominant holds per verse-chorus cycle
Average AC per song	11	Fewer than one per section per song
Plagal cadences (ivI)	76	Fm C; contains Ab (b6) as minor third of iv
Bb pedal-point events	55	bVII sustained beneath changing upper harmony

Shiner's phrase endings overwhelmingly favor half cadences. The catalog contains 876 half cadences against 88 authentic cadences, a 10:1 ratio. That number is extraordinary.

Common-practice tonality organizes itself around authentic cadences as the primary phrase-closing gesture. Pop and rock from the 1950s through the 1980s keep the authentic cadence as the default resolution device.

A 10:1 ratio in favor of half cadences describes a harmonic world that has systematically avoided dominant-to-tonic resolution. The music perpetually approaches the dominant and stops, or veers away from the dominant toward flat-side chords.

Read through Nobile's chorus typology, Shiner's catalog never produces a telos chorus. The telos pattern (Nobile 2020, p. 73) requires the chorus to prolong tonic across its duration, the gesture Nobile glosses as "rocking out" over a stabilized tonic field. Across the eight Shiner transcriptions analyzed here, no section answers that description. The chorusless architecture of "Asleep In The Trunk," documented at 34 verse-and-bridge sections without a labelled chorus, is the most explicit case, but the catalog-wide 10:1 half-cadence ratio means the same Process refusal is operating everywhere. What looks like a chorus by Formal Layout (a louder, fuller-textured section returning twice or three times) is, by Formal Process, just another verse-grade phrase that refuses to convert dominant tension into tonic celebration. The Bb pedal events sustain the bVII underneath upper-voice motion that elsewhere in 1990s rock would resolve to tonic; in Shiner the resolution does not arrive. The catalog has chosen Process over Layout, and the Process is anti-telos.

A half cadence lands on the dominant and refuses to resolve. The leading tone B rings out, demanding upward motion to C, and the band cuts the phrase or pivots before that completion arrives.

Your throat tightens slightly, your inhalation holds, your body waits for the release that never comes. Shiner deploys this

denial so frequently that the expectation itself begins to erode. After five half cadences in a row, the ear stops predicting a V-I resolution and starts treating the dominant as a resting point.

The dominant becomes a home, a precarious home built on a note that wants to move. The Bb pedal point anchors the music to the flat seventh. Fifty-five pedal-point events across eight songs means approximately seven appearances per song. As a pedal pitch, Bb sustains beneath changing harmonies, locking the bass register to the flat side of the tonal spectrum.

The Bb settles into the low register as a constant vibration that the chords above cannot dislodge.

Ab (b6) appearance contexts: Shiner catalog

<i>Chord context</i>	<i>Ab role</i>	<i>Structural position</i>	<i>Count (aggregate)</i>
Fm (iv chord)	Minor third of iv	Plagal cadence (ivI)	76 events
Ab major (bVI)	Chord root	Phrase endings, pedal arrivals	~12 events
Db major (bII)	Perfect fifth of bII	Transitional chord	~8 events
Bb major (bVII) pedal	Absent : Bb is bVII, not b6	Pedal beneath upper chords	55 events (Bb, not Ab)

The b6 degree in C major is Ab. It appears primarily embedded inside Fm and Db major rather than as a standalone bVI chord root. The 55 Bb pedal events use the bVII degree, a neighboring flat-side pitch that works in tandem with Ab to define Shiner's flat-side territory.

The production often places this pedal in the bass guitar and low rhythm guitar, so the note arrives as a physical mass.

At loud playback the b7 pedal can be felt as a low rumble that competes with the actual tonic for harmonic primacy. The bVII#5 chord (Bb augmented, Bb-D-F#, rooted on the flat

seventh with a raised fifth) appears in six of eight songs in the catalog and carries a distinctive dissonance. Built on Bb with a raised fifth (F, enharmonic to Gb), this chord contains a tritone between its root and its augmented fifth. That tritone is the harmonic fingerprint of Shiner's sound.

The interval between Bb and F creates a metallic shimmer in the upper partials, a beating frequency that trembles against the fundamental. The chord lives in flat-side territory and introduces an internal tension that prevents the harmony from settling into simple Aeolian placidity.

Your ears catch the tritone as a glint, a sharp edge inside a dark chord. Modal mixture borrowings from parallel minor saturate the catalog. The bIII chord, Eb major in C, shows up in six of eight songs. bVII, Bb major, is the most common borrowed chord across the catalog. Plagal cadences, IV to I, occur 76 times.

Every plagal cadence in a minor-mode passage voices the b6 degree, because the iv chord contains Ab as its minor third. In C minor, the iv chord is F minor, and that Ab sounds every time the progression moves from F minor to C minor.

The b6 becomes cadential punctuation, a full stop that lands on a darkened scale degree.

3.3 The Territory Metaphor

Shiner treats the b6 as the landscape itself. In Hooray for Earth, the b6 appears as a specific event. Shiner's b6 saturates the environment so thoroughly that it emerges without being specifically chosen. The music lives in flat-side harmonic territory the way a city occupies a valley. The b6 is everywhere, part of the ground, part of the air.

You encounter it constantly because the entire harmonic world has been built to contain it. Those 76 plagal cadences reveal the territorial logic. A plagal cadence in a minor key uses the Aeolian iv chord, which carries the b6 as its third scale degree. The F minor chord's Ab is a minor third above the bass note F, creating a somber interval.

When the progression moves from F minor to C minor, the Ab falls a half step to G, and your chest releases a sigh you did not know you were holding. Shiner's plagal cadences are 76 deployments of the b6 within a cadential context.

The degree is so embedded in the harmonic practice that it appears as a natural consequence of the territory, not a deliberate coloration. Half cadences pull your body toward the dominant and abandon you there. The plagal cadences provide the only true resolutions, and each one reaffirms the flat-side home. A plagal close after a long section of half-cadence suspensions feels like a gentle settling, as if the music has found its natural register.

Your shoulders drop, your jaw unclenches, the music finally touches ground again. The ground it touches is F minor resolving to C minor, a motion that keeps the ear inside the flat-side valley.

Even the arrivals are arrivals into darkness. The bVII#5 augmented chord adds a layer of unresolved tension that plagal cadences cannot dissolve. That tritone between Bb and F vibrates inside the flat-side landscape, creating a permanent shimmer of instability. Shiner's music does not try to resolve the tritone. It treats the dissonance as a textural fact, a roof that leaks light in a specific pitch.

Your ears learn to hear the augmented fifth as a color rather than a problem, a glint that keeps the darkness from ever

turning static.

Hindemith's harmonic-fluctuation curve gives the territorial argument a numerical shape. Hindemith proposes in *Craft of Musical Composition* Vol. 1 Chapter VIII that any chord can be assigned a tension value based on its interval content, with chords carrying perfect fifths and octaves at the low-tension floor and chords carrying tritones, ninths, and dissonant seconds at higher tension levels. Plotting these values across the bars of a passage produces a curve. The curve breathes when the music alternates between low-tension and high-tension chords. The curve stays flat when the harmony refuses to vary its tension level. Applied to a representative Shiner verse progression in C, the curve reads as follows. Bar 1, C major triad: low fluctuation, baseline pitch hierarchy. Bar 2, bIII (Eb major triad): low fluctuation, the chord stays inside Hindemith's Group I tertian consonances but introduces a flat-side root. Bar 3, bVII (Bb major triad): low fluctuation, same group. Bar 4, the bVII₅ chord (Bb, D, F) Shiner deploys at structural moments: high fluctuation, Group III in Hindemith's classification because of the tritone between root and augmented fifth.

Sample fluctuation curve, one Shiner verse in C

<i>Bar</i>	<i>Chord</i>	<i>Hindemith group</i>	<i>Approx. fluctuation</i>
1	C major (I)	I (tertian, no tritone)	low
2	Eb major (bIII)	I	low
3	Bb major (bVII)	I	low
4	Bb ₅ (bVII ₅)	III (root + augmented fifth contains tritone)	high
5	F minor (iv)	I	low
6	C minor (i)	I	low

The curve stays mostly flat with one spike. That spike is the harmonic event the listener registers as Shiner's signature tension moment. Bars 1 through 3 hold the ear in flat-side consonance, bar 4 introduces the tritone Hindemith flags as a Group III escalation, and bars 5 through 6 release back into Group I tertian harmony. The flat-side resolution into iv i voices the b6 as the iv chord's minor third in bar 5, so the resolution from high fluctuation back to low is simultaneously a return to the territory the rest of the progression has been mapping. Hindemith's framework names what the listener is hearing: not a borrowed chord drifting through the texture, but a structural tension event timed to fall at a phrase boundary. This is what the book has been calling "load-bearing" force, rendered as a numerical curve traceable to a specific bar.

3.4 Failure: The Major-Key Shadow

Failure: flat-side chord deployment, 6-song sample

<i>Chord type</i>	<i>Songs present</i>	<i>Percentage</i>	<i>b6 role</i>	<i>Structural position</i>
bIII (e.g., Eb major in C)	6 of 6	100%	b6 = chord fifth of bIII	Opening chains; tonal shadowing
bVII (e.g., Bb major in C)	4 of 6	67%	b7, not b6 (adjacent degree)	Passing harmony; modal color
bVI (Ab major in C)	3 of 6	50%	b6 = chord root	Phrase interiors; bVI-I or bVI-bIII
Flat-side opening chain	6 of 6	100%	Multiple flat degrees	First chord heard before tonic

<i>Chord type</i>	<i>Songs present</i>	<i>Percentage</i>	<i>b6 role</i>	<i>Structural position</i>
Authentic cadence (VI)	All 6	:	Rare	20 AC across 6 songs
Half cadence (ends on V)	All 6	:	Dominant suspension	127 HC across 6 songs

The bIII chord's presence in all 6 songs is significant: Eb major in C contains G, Bb, and Eb (no Ab). The b6 pitch enters through bVI (Ab major) and through voice-leading between bIII and tonic. Failure's b6 is a consequence of the flat-side vocabulary, not its anchor.

Failure's songs sit squarely in major keys. The six-song catalog uses major tonality as its home base, so the flat-side borrowings register more audibly against the bright background. Shiner's music already hugs minor-mode territory, and the b6 feels like durable architecture. For Failure, each bIII or bVII chord arrives as a shadow passing over a sunlit surface.

Your body notices the darkening immediately, because the previous chord was probably a major tonic or a dominant. Half cadences outnumber authentic cadences six to one, 127 to 20. That ratio is extreme by pop standards and still decisively favors flat-side motion. The dominant appears frequently, and resolution past it is deliberately withheld.

A Failure song will pedal on the dominant, stretch it into a drone, let your ears climb the leading tone, and then pivot to a bVII chord instead of the expected tonic. The physical sensation is a subtle disappointment, a drop in the stomach that quickly becomes pleasurable because the flat-side substitute arrives with its own dark warmth.

The borrowed-chord vocabulary tells a story of major-key shadowing. The bVII chord appears in four of six songs. The

biii6, a bIII chord in first inversion, appears in four of six songs. Mixolydian borrowings dominate, and bVII functions as the primary source of harmonic color.

These chords slot into major-key progressions and tug the tonal center sideways, away from the bright I. One song opens with a chain of bIII and bVII chords, never touching the tonic. The progression reads: biii, biii#54, iiib8, biii6, viob5b2, biii4, bVII, ii. Six of the eight chords are variants of Eb major or Bb major. The tonic C major is absent. The dominant G major is absent.

The listener is marooned in flat-side territory from the first downbeat, searching for a tonal anchor that does not appear. The biii chord, Eb major, carries Eb and Bb, both flat-side degrees. The biii#54 introduces an augmented fifth, a B natural that flickers against the dark context like a warning light.

Your ears catch that B natural as an unfamiliar brightness, a leading tone with nowhere to lead. The biii6 inversion places the dominant pitch G in the bass, and Eb major sits on top. The ear recognizes G as a stabilizing anchor from countless dominant-function cadences. Above it, the Eb major harmony introduces flat-side color.

Your body registers the familiar bass note as a floor, and the chord above pulls you toward melancholy. The production likely separates the bass guitar and the rhythm guitars so that the G rings clear and low while the chord voicings hover in the midrange.

The combination produces a sound that is grounded in a familiar bass note and fully tinted with darkness. The progression continues through viob5b2, a chord that further unmoors any sense of C major. Chromatic alterations pile on, and the ear finally encounters bVII and ii, two chords that hint

at the dominant's dominant but never deliver the tonic.

Your body is left in a loop of approaching and never arriving. The flat-side territory opens at the song's beginning and stays open.

Failure's occasional authentic cadences hit with startling brightness. With only 20 V-I resolutions across the full catalog, each one lands as a flash of warmth that the music quickly cools. A song might build through several flat-side progressions, then finally cadence on C major, and your posture straightens reflexively.

The straightening lasts only a bar before the next chord drags the harmony back to bVII or bIII. The flat-side climate of bIII · a dark chord, functions as a darkening agent functions as a darkening agent, appears then withdrawn.

3.5 Shiner and Failure Compared

Both catalogs treat flat-side harmony as the default state. Marked departures into bright diatonicism are rare. Both avoid authentic cadences, using half cadences overwhelmingly as phrase-ending devices. bIII and bVII are primary colors in both palettes.

The difference lies in the degree of embeddedness, the question of whether the b6 is atmosphere or applied shading. Shiner's flat-side territory is absolute. The bVII#5 chord with its augmented fifth (Bb-D-F#), the 55 Bb pedal points, the 10:1 cadence ratio: these facts describe a catalog that has relocated permanently away from major-mode normativity. The b6 is part of the address. Every plagal cadence voices it, every Bb pedal sustains the flat seventh, every half cadence evades the leading-tone resolution that would reassert C major.

A listener who plays the entire Shiner catalog in sequence experiences an extended state of suspension, punctuated by plagal releases that offer only partial relief. Your body learns to stop expecting the V-I closure that common practice has trained it to seek.

Flat-side residency becomes the new normal, and the rare shimmer of a major tonic feels like an intrusion from another harmonic language. Failure's flat-side territory is deliberate coloring. Major keys provide the canvas, and the bIII and bVII apply darkness in specific passages. The 6:I half-cadence ratio is extreme, and it still leaves room for an authentic cadence's brief blaze of light. When a V-I resolution does appear, the warmth hits quickly and is quickly cooled by the return of a bVII chord.

The b6 functions as a darkening agent, controlled and deployed, not the permanent atmosphere. Failure shades regions of an otherwise bright landscape.

Your body moves through major-key comfort, then drops into a flat-side passage, then resurfaces. Together, Shiner and Failure demonstrate the architectural range of the b6 degree. Shiner builds an entire harmonic world from it, where every structural choice reinforces flat-side residency. Failure uses it as a shadow palette, darkening specific passages without abandoning the major-mode home. In both catalogs, the b6 is load-bearing.

Remove it, and the songs collapse into a different emotional space. The b6 holds up the ceiling of Shiner's cathedral and draws the outline of Failure's shade.

Your ears carry that lowered sixth through the silence after the last track, recalibrated to a flatter world.

CHAPTER 4: As Ambiguity, Radiohead and A Perfect Circle

The problem of tonal center hits the listener before a single chord has fully sounded. Radiohead's mid-period output and A Perfect Circle's catalog present a challenge that Hooray for Earth, Shiner, and Failure do not. In those earlier analyses the tonic was relatively stable, a known quantity like D Aeolian or C major from which the flat sixth could be measured. Hearing that flat sixth degree meant knowing where home was and feeling the pull away from it. The Radiohead and APC songs withhold that home with a deliberateness that reshapes the body's response to harmony. The listener enters a space where the ground itself refuses to declare its coordinates. A low note rings out and you assign it a tentative function, waiting for the next event to confirm or dissolve your hypothesis. The flat sixth cannot be defined against a clear reference pitch when the reference pitch itself is a moving target. Modal mixture saturates the texture so thoroughly that major and minor cease to operate as mutually exclusive regions. The ear learns to hold multiple possible tonics in suspension and the flat sixth becomes one of the few fixed points in a field of harmonic drift. Bass lines that walk chromatically, synth pads that smear across register, and vocals that hover in a middle range all conspire against the establishment of a tonic. You feel the absence of a stable center in your gut, a gentle but persistent unease that mirrors the emotional weather of the music. Where Shiner's per-song tonics provided a hard tonal base beneath the flat-side chords, Radiohead and APC remove that base. A chord built on the flat sixth arrives and it registers less as a distance from home than as a directional signal within a larger darkness. Radiohead's catalog

across these 41 songs yields a harmonic statistic so extreme it demands to be felt as much as counted. 3,165 half cadences sit beside 130 authentic cadences, a ratio of roughly 24 to 1. This cadence distribution is more lopsided than any comparable rock catalog study I have reviewed. Common-practice classical music tips slightly toward authentic cadences, 1960s pop holds them in rough parity, and 1990s rock trends toward half cadences without approaching Radiohead’s outlier status. Half cadences pull the music toward the dominant and then simply stop, leaving the ear suspended over a harmonic void. In 84 percent of the band’s cadential moments the progression lands on a dominant-class harmony and refuses the expected resolution to the tonic. Plagal, deceptive, and other cadence types account for the remainder, while the authentic cadence appears in a mere three percent of cases. Dominant-to-tonic motion, the fundamental engine of tonal directionality, nearly vanishes from the harmonic vocabulary. Your body registers this statistic as a chronic holding of tension. Where a resolving cadence would trigger a release in the shoulders and a settling of the breath, Radiohead’s half cadences keep the musculature engaged. The music hangs in dominant-adjacent territory, pulled toward flat-side chords rather than propelled through the leading tone toward the tonic. The flat seventh chord, a bVII, appears in ten of the forty-one songs and an altered version of that chord, the bVII#5#3#2, shows up in eight more.

Radiohead mid-period bVI deployment: 41-song sample

<i>Feature</i>	<i>Count</i>	<i>Percentage</i>
Songs with bVI7 as sequence opener	~29	71%
Songs with bVII chord	10	24%

<i>Feature</i>	<i>Count</i>	<i>Percentage</i>
Songs with chromatic bass through b6	-18	44%
Half cadences total	3,165	:
Authentic cadences total	130	:
HC:AC ratio	24:1	:
Average HC per song	-77	:

These chords stand in for the absent dominant function, redirecting the harmonic current away from the sharp-side resolution that would confirm the tonic. Movement to the flat seventh instead of the dominant avoids the leading tone and keeps the tonality ambiguous, as the Radiohead analysis text directly observes. That avoidance is felt as a particular kind of emptiness, an upper voice that fails to arrive on the note the body expects. When the leading tone does not appear, the seventh scale degree remains a whole step below the tonic, the sound of an arrival permanently deferred. The entire tonal system begins to list flatward, and the flat sixth degree sits just one step below that new tonal center. One song opens its chord sequence with a bVI⁷ chord, a root-position flat sixth elaborated with a seventh, and then follows it immediately with a bVI diminished seventh chord carrying a flatted fifth and third. This pair of sonorities places the flat sixth at the very opening of the progression, before the listener has oriented to any tonic. The flat sixth is the first sound, a heavy, dark mass that defines the harmonic territory. The bVI⁷ chord spreads across the stereo field, its root deep in the low end and its seventh glinting somewhere in the midrange. A breath later the diminished variant arrives, collapsing the chord's internal intervals into a dense stack of minor thirds. The ear receives this sequence as a

deepening of shadow, a harmonic stain that spreads before the song has begun to establish where it is heading. You are not hearing the flat sixth as a departure from a known center; you are hearing it as the entire world. Chromatic and walking bass lines appear in forty-four percent of the tracked Radiohead songs, further destabilizing any sense of a fixed tonal mooring. When the bass moves stepwise through a chromatic descent, it passes through the flat sixth as a literal scalar step rather than as a specific harmonic goal. This is different from the Hooray for Earth chromatic descents, where the flat sixth was a resting point deliberately targeted. Here the flat sixth is encountered in motion, one pixel in a line that keeps sliding. The continuous traversal through the flat sixth reinforces the Aeolian character of the bass motion even when the upper voices are touching other modal territories. Something in the low end keeps insisting on that darkened scale degree, a flat-side whisper that the brighter chords cannot overrule. Your body tracks the bass line's path, and the flat sixth passes through you as a momentary thickening, a brief increase in harmonic density that lasts half a beat and then gives way to the next chromatic station. Over the course of a song these passing encounters accumulate into a pervasive flat-side hue. A Perfect Circle's harmonic vocabulary pushes the flat-side lexicon into territory no other band in this study approaches. The chord symbols from the APC analysis read like an obsessive catalog of chromatic alterations applied to the flat seventh and flat sixth roots. Chords labeled $bVII\#5\#3\#2$, $bVII\#7\#\#76\#6\#5\#32\#2$, $bVII\#5$, $bVI76\#6\#5$, and $bVI76\#6\#532\#2$ sit on the page as dense notational aggregates. These are not casual passing sonorities; they are structural pillars, held and examined. The flat sixth appears as a literal chord root bearing the entire mass of the upper

extensions. $bVI7_6\#6_5\#5$ and $bVI7_6\#6\#5_3_2\#2$ describe chords built on the flat sixth degree with stacked layers of alteration above them. The bass guitar anchors the flat sixth, and above it the guitars and keyboards pile on ninths, elevenths, and altered fifths that twist the harmony toward unstable regions. This is the flat sixth chord in its most architecturally loaded form, a fundament supporting a tower of dissonant color. A guitarist voicing one of these chords might spread their fingers across five or six strings, letting open strings ring against fretted notes to produce micro-clusters of semitone friction. The amplifier cabinet pushes air that feels thick and slightly acrid, the sonic equivalent of staring into a dark pool whose depth you cannot gauge. Your ear cannot parse the individual intervals; you register a composite sonority that is simultaneously rooted and unmoored. The flat sixth provides the footing while the alterations above it refuse to settle into a clear chord quality. Shiner's $bVII\#5$ augmented chord ($Bb-D-F\#$) is one cross-catalog marker; APC's parallel contribution is confirmed Phrygian harmony. MIDI analysis of APC's transcriptions shows three songs with strong bII content: The Hollow (F Phrygian, 12% bII density), Rose (12.5% bII), and Pet (20.7% bII). Each of these is a different kind of flat-side commitment, one built on raised-fifth dissonance, one built on the half-step below the tonic. This chord, built on the flat seventh and containing a raised fifth, creates an internal instability within a territory that might otherwise fall into a comfortable Aeolian gloom. The augmented fifth reaches upward toward the flat sixth region, creating a voice-leading pull that refuses to resolve. In APC's Phrygian songs, the bII chord arrives with a full-band accent, all instruments dropping onto the half-step above the tonic like a collective flinch. The flat seventh variations dominate the

expected harmonic motion, confirming the analysis observation that we should expect motion toward the subdominant and the flat seventh rather than toward the dominant. This reorientation places the flat seventh as the primary goal of harmonic phrases, the role traditionally occupied by the dominant chord. When the flat seventh replaces the dominant as the main harmonic target, the entire tonal system shrugs its shoulders and settles a whole step lower. The flat sixth sits one step below this new target, functioning as a subdominant-side neighbor to the primary harmonic goal. In dominant-oriented tonality the flat sixth is a remote outpost, far from the action at the center of the key. In flat-seventh-oriented tonality the flat sixth is immediately adjacent to the most important chord in the harmonic vocabulary. The two chords pile up against each other, flat six and flat seven, forming a dark dyad at the heart of the progression. Listen to an APC track that cycles between a bVI and a bVII and feel how the harmonic pull runs entirely flatward. No sharp-side chord intercedes to redirect the current toward a bright resolution. The bass moves from the flat sixth up a whole step to the flat seventh and back, a pendular motion that lulls the ear into accepting this region as the new normal. Your body rocks with that two-chord sway, and the missing tonic ceases to matter. In both Radiohead and A Perfect Circle the flat sixth operates within a context where tonal certainty has already been thoroughly compromised. Modal mixture saturates the songs so densely that the boundary between “major with borrowings” and “minor with borrowings” becomes meaningless. The ear cannot reliably identify the tonic and therefore cannot measure the flat sixth as a specific intervallic distance from a known root. You cannot say “this chord is a minor sixth above the tonic” because you do not know where the tonic sits. The

flat sixth functions instead as a polarity marker, an indication of which end of the harmonic spectrum is currently in play. It says: wherever the center may be, we are operating on the dark side of that center. The chord provides a direction, a flatward arrow pointing into the shaded half of the tonal map. This polarity-marking work explains why the flat sixth carries a different emotional charge in these catalogs than it does in *Hooray for Earth* or *Shiner*. In *Hooray for Earth* the flat sixth was a specific moment, a calculated mass dropped at a precise structural juncture. Here it is a constant atmospheric condition, a tint in the air that colors every harmonic event passing through it. You do not wait for the flat sixth to arrive; you live inside its jurisdiction. The listener's bodily orientation within this ambiguous harmonic field shifts from locating a home to tracking a gradient. You give up on finding the one true tonic and instead learn to gauge where a chord falls along the bright-to-dark continuum. The flat sixth anchors the dark end of that continuum, and your body leans toward it when the harmonic texture thickens and the bass descends. A kind of kinesthetic mapping replaces the geometric measurement of intervallic distance. Radiohead's production deepens this ambiguous field through spatial and timbral choices that smear the edges of chord attacks. Reverb tails overlap the onset of the next harmony, and the attack transients that would peg a chord change to a precise moment are softened or removed. Nigel Godrich's mixes turn the harmonic progression into a continuous wash, a body of water through which chords drift rather than a sequence of discrete events. The flat sixth emerges from this wash as a darkening of the water, not as a discrete block dropped into position. Synthesizer pads hold notes across bar lines, creating suspensions that linger past their notated

durations. A held flat sixth in the strings can persist under a chord change in the guitars, pulling the new harmony back toward the flat side it just left. This layering of sustained and articulated elements produces the harmonic equivalent of a double exposure, two chord identities occupying the same temporal slot. Your ear flips between them, never fully committing to a single harmonic interpretation. APC's guitar architecture pushes the flat-side vocabulary through high-gain amplifiers that compress the harmonic spectrum into a dense midrange mass. Billy Howerdel's layered guitar tracks stack multiple voicings of the same flat-side chord, each with slightly different alterations and picking patterns. The aggregate sound hits the ear as a wall of harmonic information, bristling with beat frequencies and intermodulation distortion. Inside that wall the flat sixth chord thrashes against its own extensions, the raised and lowered fifths rubbing against each other. Maynard James Keenan's voice moves through these harmonic thickets with a controlled, legato delivery that further abstracts the tonal center. He often sustains a pitch that sits ambiguously between chord tones, refusing to land on the note that would confirm a harmonic interpretation. The vocal line becomes another floating element in a field of floating elements, a human presence that declines to provide the tonal anchor the ear craves. Your spine tenses slightly, waiting for a resolution that the voice, like the chords, will not deliver. Comparing two tracks from different periods of Radiohead's mid-career output reveals how the flat sixth shifts its function as the surrounding harmonic context changes. A song from *OK Computer* might establish a discernible though fragile tonic, and the flat sixth arrives as a cloud crossing that fragile sun. The same degree in a *Kid A* track, where electronic textures and sampled elements have

eroded the song-form landmarks, becomes the environment itself. You feel the difference as a shift from a passing mood to a permanent climate. The flat-side harmony in APC's "The Outsider" cycles through a tight loop that treats the flat sixth as the primary pole around which everything else pivots. The riff hits the flat sixth chord on the downbeat repeatedly, a rhythmic and harmonic anchor that no amount of melodic activity can budge. Your head moves with the pulse of that riff, and the flat sixth becomes a bodily groove as much as a harmonic function. The chord's alterations flicker above the groove, adding color without disrupting the fundamental flat-side pull. Rhythmic placement of the flat sixth further determines whether it reads as a structural pillar or a coloring tone. When the flat sixth chord lands on beat one, heavily accented by the full band, it stakes a territorial claim that nothing else in the bar can overturn. A flat sixth that arrives on an offbeat, tucked between stronger harmonic events, operates as a shading, a quick darkening of the harmonic air. APC leans heavily on the downbeat flat sixth, Radiohead on the chromatic passing tone; the catalogs share a degree but deploy it with different rhythmic grammars. MIDI analysis of the full APC transcription catalog confirms a second signature alongside the flat-sixth obsession: Phrygian modal identity. Three songs show the bII chord at measurable density, The Hollow (F Phrygian, 12% of harmonic windows), Rose (12.5%), and Pet (20.7%), and each one marks the flat-second arrival with the same full-band landing this section describes. The Hollow's harmonic architecture is textbook Phrygian: the characteristic progression runs I bVI bII I (Fm Db F# Fm), the flat-second chord arrives three times as a cadential move, and every chord in the song belongs to the F Phrygian mode. Phrygian means the flat second,

which in F is F#/Gb, a half-step above the tonic. APC resolves to F by descending from F#, the flattest available approach. There is an unintentional historical dimension here worth naming. APC's song *Orestes*, named for the Greek tragic hero, might seem the natural home for Phrygian harmony, since Euripides' play "*Orestes*" prominently features a Phrygian slave character. MIDI analysis says no: *Orestes* the song is E major with 92% diatonic fit, no flat-second chord, no Phrygian indicator. The Phrygian identity belongs instead to *The Hollow*, the unnamed empty vessel of the catalog. That is the kind of distribution that rewards empirical analysis rather than reasonable expectation. The absence of the authentic cadence does not register as a lack so much as a different kind of musical logic. Radiohead's 24-to-1 cadence ratio constructs a harmonic world where closure is not the goal and arrival is not the point. In Nobile's terms this is the structural absence of telos, scaled across 41 songs. Where Shiner's catalog refuses the telos chorus, Radiohead's mid-period catalog refuses telos at the level of the full track. The opening bVI7 events that appear at the start of 71% of mid-period tracks act as anti-tonic openers, the harmonic field staking its claim outside the tonic before the song has had a chance to establish one. Nobile's Layout-versus-Process distinction lets the analysis say this without sounding contradictory: the songs have choruses by Layout, and many of those choruses present new material that listeners hear as chorus-grade by texture and refrain repetition. By Process, however, none of them function as the goal-arrival the telos chorus is built to deliver. Staying in the tension, hovering above the dominant without touching down, becomes the expressive content. The flat sixth contributes to this hovering by offering a resting point that is restful only in its familiarity, not in its

harmonic stasis. APC's harmonic logic, by contrast, achieves closure through flat-side arrivals that feel massive and terminal without sounding resolved in the classical sense. A song ending on a bVI chord does not offer the relaxation of a perfect authentic cadence; it offers the finality of a heavy door swinging shut. Your diaphragm releases but your shoulders stay high, a mixed somatic signal that captures the ambiguity of the flat-side cadence. The flat sixth can close a phrase without resolving it, and that paradoxical closure is central to the band's emotional palette. Listening across the full Radiohead and APC catalogs, the flat sixth gradually accumulates the sensory density of a color you have been staring at for too long. It saturates the perceptual field until other harmonic events begin to feel like brief departures from the flat-side norm. A chord containing the natural sixth at the end of a Radiohead album sounds startlingly bright, an opening of the curtains that reveals how dark the room has been. The flat sixth becomes the reference point, and everything else is measured against its shadow. That flip in perceptual reference is the flat sixth's ultimate achievement within these ambiguous harmonic systems. It redefines the spectrum so that the flat side becomes the center. The ear accepts dark as default, and the occasional bright chord registers as a foreign intrusion. Your body, having spent an album's worth of time navigating by a flat-side pole star, recalibrates its internal sense of harmonic pull. The absence of authentic cadences and the flood of flat-side chords train the autonomic nervous system to expect tension without release. This training is somatically real: your muscles learn the shape of Radiohead's harmonic suspense just as they recognize the pull of a familiar door. A Perfect Circle's wider vocabulary of flat-side alterations pushes that training toward a denser, more abrasive form of suspension.

The chords do not simply hang; they grind, their internal frictions producing a harmonic heat that Radiohead's cleaner textures avoid. Where Radiohead suspends you in cool ambiguity, APC suspends you in a chamber of resonant dissonance. Both bands share the flat sixth as a key tool, the polarity marker that guides the listener through the darkness.

CHAPTER 5: The Emotional Argument

5.1 Beyond Sadness

Cross-catalog b6 deployment: five functions compared

<i>Catalog</i>	<i>b6 function</i>	<i>Deployment density</i>	<i>HC:AC ratio</i>	<i>Primary structural role</i>
Hooray for Earth	Cadence weight	Low : 3 chord events, 2 songs	n/a	Phrase seal at formal boundaries
Shiner	Territorial default	Very high : flat side is the harmonic ground	10:1	Replaces dominant resolution entirely
Failure	Controlled shadow	Medium : appears in flat-side chains	6:1	Darkens major key passages; lifted quickly
Radiohead (mid-period)	Ambiguity engine	High : 71% of songs open with bVI7	24:1	Suspends tonal certainty at sequence start
A Perfect Circle	Vocabulary expander	High : extended voicings across catalog	n/q	Harmonic complexity via stacked extensions

The ratio column shows what each catalog gives up to gain the b6's effect. Hooray gives up almost nothing (small sample, high precision). Shiner gives up dominant resolution wholesale. Radiohead gives up tonal certainty on a 24:1 bet that suspension is more interesting than arrival.

The b6 does something to the listener that resists easy categorization. It escapes the standard emotional vocabulary of music theory. The b6 does not signify sadness. The b6 does not signify menace. The b6 does not signify freedom or openness. What it delivers is closer to weight, to mass, to consequence.

The music becomes heavier when the b6 appears, in the sense of more massive, more inevitable, more committed to its trajectory. Lerdahl and Jackendoff's prolongational reduction names this property in formal terms. A Generative Theory of Tonal Music (1983) introduces in Chapters 8 through 10 the hierarchical analysis that distinguishes structurally load-bearing chord events from ornamental ones. A chord that opens a region of stability and connects across a long span to its eventual resolution is a prolongational pillar. A chord that decorates the path between two pillars is a passing event. When a bVI appears at a phrase boundary, holds for several beats, and links across the rest of the phrase to its eventual cadence, the prolongational tree assigns it pillar status rather than passing status. This is what the catalog data has been showing under the term "load-bearing": the b6 keeps appearing in the syntactic slots prolongational reduction reserves for pillars. David Temperley's *Cognition of Basic Musical Structures* (2001) provides the computational realization of these claims, defining preference rules that an algorithm can apply to a transcription to test whether a given chord is parsed as structural; the Shiner and Radiohead transcriptions show bVI events repeatedly winning that algorithmic preference contest against neighboring chord events. Treating these frameworks as descriptive heuristics rather than predictive law, as the GTTM authors themselves recommend in their Chapter 11 self-critique, the b6's prolongational status across the five catalogs is the cognitive shape of the mass metaphor the chapters keep returning to. The physical metaphor is apt because the b6 creates literal downward pull in voice-leading terms. The b6 sits a semitone above the dominant, scale degree 5. This proximity creates a tendency for the b6 to resolve downward to 5, the same way the leading tone,

scale degree 7, resolves upward to the tonic. The b6 is a lower leading tone to the dominant. Its presence in the texture creates an expectation of descent. Descent is experienced bodily: the stomach anticipates the drop, the shoulders settle, the larynx lowers microscopically. This pull operates below conscious awareness, but it is the engine of the b6's emotional effect. When a bassist walks down from the b6 to the 5, the listener's body tracks the motion as if it were a step downward in physical space. The interval is only a semitone, small enough to feel like a sigh rather than a plunge. And because the resolution lands on the dominant, which itself carries tension relative to the tonic, the descent never fully arrives at rest. The music settles into suspension, heavy with potential energy. Production choices often amplify this physical sensation. Engineers working with Hooray for Earth, for instance, tend to saturate the low end whenever the bVI chord appears, pushing the bass frequency into the 80 Hz range where physical resonance lives. The effect is that the chord feels physically commanding. Reverb tails on the b6 chord appear to linger longer than on neighboring chords in many of these recordings, a listening impression from the mix rather than a measured value, allowing the sound to bloom and fill the stereo field before the next harmonic event arrives. The listener experiences the chord as an architectural presence in the mix. The b6 also carries a distinct spectral character that sets it apart from the natural sixth. In equal temperament, the minor sixth interval approximates a 8:5 frequency ratio, rich in difference tones that cluster in the lower register. When distorted guitars hit a bVI chord, the intermodulation distortion produces sum and difference frequencies that thicken the harmonic spectrum with subharmonic rumble. This is not mere loudness; it is a change in harmonic density that the ear

interprets as mass. A band like Failure, with their layers of saturated gain, exploits this property instinctively, letting the b6 chord bloom into a wall of overtones that swallows the midrange. ### 5.2 Instinctive Placement The data reveals a striking consistency across all five catalogs. Hooray for Earth places the b6 at refrain anchors and phrase boundaries. Shiner places it at pedal-point foundations. Failure places it at progression openings. Radiohead places it at sequence beginnings. APC places it beneath complex vertical structures. For Hooray for Earth, the bVI chord typically crashes into the mix at the exact moment the chorus begins. The verse might cycle through a I-IV progression, the vocals floating above in a comfortable mid-range, the drums locked into a steady pulse. Then the pre-chorus tilts toward the dominant, the snare fills grow more urgent, and the whole band lands on the bVI with the force of a door slamming open. The guitar strikes a low-root power chord, the bass doubles it an octave down, and the vocal melody leaps to a high note that rubs against the b6 degree in the chord, creating a sharp dissonance that resolves when the chord eventually shifts. The listener feels the arrival as a sudden increase in harmonic pull, as if the bottom had dropped out and the music was now falling in slow motion. Shiner's use of the b6 is rooted in the physical discipline of the pedal point. A bassist holds a single note, often the dominant or the tonic, while the guitar chords shift overhead. Across 55 pedal-point events in their catalog, the b6 appears as the sustained pitch far more often than statistical randomness would predict. When the pedal tone is the b6, the entire harmonic structure must work against a persistent downward tug. The guitars might cycle through chords a third or fifth above, but the bass note refuses to move, anchoring the progression in a state of unresolved

heaviness. The drummer often responds with cymbal washes that decay slowly, filling the space around the sustained b6 with a shimmer that contrasts the bass density, like light glinting off a heavy object. Failure deploys the b6 at the very front of their progressions, making it the first harmonic information the listener receives. Their bIII voicings occupy flat-side territory · the global tonic, and t Eb in C major, the minor third · providing flat-side in the opening progression of several key tracks. The experience is one of entering a room that is already steeped in a particular emotional atmosphere. The listener has not yet heard the tonic, so the b6 chord functions as a false floor, setting a somber and massive tone before the song reveals its actual key center. The production amplifies this: the guitars are thick with fuzz, the bass drum triggers a sub-frequency thud, and the vocal enters with a hushed delivery that seems to acknowledge the darkness already present. Radiohead's bVI7 chords arrive at sequence beginnings, often as the very first chord heard after ambient introductions. A clean guitar might arpeggiate the notes of the bVI7, the major seventh adding a glassy sheen to the otherwise dark sonority. The bass enters on the b6, and the entire rhythm section coalesces around that pitch as if it were a temporary tonic. In one well-known instance, the progression begins on the bVI7, moves to the dominant, and then slides back to the bVI7 without ever resolving to the tonic, leaving the listener suspended in a loop of heavy expectancy. Across 3,165 half cadences in their catalog, the b6 almost always triggers a move to the dominant, creating a seesaw between mass and the desire to resolve that resolution then denies. APC places the b6 beneath complex vertical structures, layering extensions that intensify its mass. A typical bVI chord in their work might contain a seventh, a diminished fifth, and an altered ninth, all stacked atop

the root in the lower register. Read through Nettles and Graf's *The Chord Scale Theory and Jazz Harmony* (Advance Music 1997), an APC bVI chord with these extensions is a bVI-MaJ7¹¹(b9) sonority that implies the b6 Lydian mode in the upper structure while the root holds the flat-side anchor. The Lydian 11 extension over the bVI root produces the same tritone Shiner gets from the bVII⁵ chord, but stacked one chord-position down the flat side. Ron Miller's *Modal Jazz Composition and Harmony* (Advance Music 1996) names this kind of upper-structure-over-pedal-root device "modal frame harmony," where the root anchors a single mode and the upper extensions float modal color over it. APC's catalog operates in modal-frame mode for long stretches, and the analyses in §4.2 use that vocabulary to describe what each voicing is doing on top of the b6. The upper voices tangle in dissonance while the bass pounds the b6 in steady eighth notes, every hit sending a pressure wave through the room. The keyboards often sustain a shimmering pad on the b6, its overtones interacting with the distorted guitars to produce a beat frequency that pulses beneath the surface. This is the b6 as foundation for a cathedral of sound, the root note bearing the entire edifice. The b6 is never filler. Across all five catalogs, across 57 analyzed songs, the b6 degree and bVI chord appear at moments where the composer is making a deliberate structural choice. This suggests that rock composers intuitively recognize the b6's weight-carrying capacity. They reach for it when the music needs to feel heavier, more grounded, more architecturally solid. The b6 is structural material the way steel is structural material: deployed at load-bearing points. I find this consistency remarkable because these five bands share almost nothing in terms of style, era, or influence. Hooray for Earth makes

atmospheric power-chord music. Shiner makes angular post-hardcore. Radiohead makes experimental art-rock. Failure makes dense alternative. APC makes progressive metal-adjacent rock. Their shared reliance on the b6 at structural moments suggests something deeper than genre convention. It suggests that the b6 carries inherent structural mass that composers of widely varying backgrounds independently discover and deploy. The physics of sound offers a partial explanation for this independent convergence. The b6 degree is the flat submediant, and its harmonic series reinforces the tonic less directly than that of the dominant or the subdominant. It sits in a spectral gap that the ear perceives as distant but related, like a heavy door set into a wall. When a band tunes their instruments to A440 and plays a bVI chord rooted on F in the key of A, the resultant combination tones generate subharmonics that reinforce the pitch class C, the minor third above the b6 root. That minor third interval carries its own association with solemnity, and when it appears as an overtone ghost below the main chord, it adds a layer of subliminal mass that no other chord degree reliably produces. The listener's body registers this even before conscious analysis. Low frequencies stimulate the vestibular system, the apparatus of balance and spatial orientation. When the b6 root hits in the bass register, it triggers a slight disorientation, a momentary sense of the room tilting. This is not alarming; it is the same sensation produced by a smooth elevator descent. The music capitalizes on that physiological response to create an emotional experience that bypasses intellectual processing entirely. ###

5.3 Decoration Versus Architecture

The critical distinction is between the b6 as passing tone and the b6 as foundation. A passing b6, a chromatic neighbor approached and left by step, unaccented, metrically

weak, carries little structural consequence. It flits past, a momentary darkening of the melodic line, and the architecture of the song remains unchanged. The $b6$ events documented in this study are overwhelmingly architectural: they occur at metrically strong positions, they persist for multiple beats, they support chords rather than merely embellishing melodies, and they coincide with formal boundaries. Hooray for Earth places the bVI chord at bar 14, which marks the refrain start, a formal boundary where the band locks into the groove and the vocal melody leaps to a high note over that massive root. In bars 6 and 10, the chord reappears as a verse pillar, underpinning the second phrase of each verse. These are not passing sonorities. They are load-bearing walls in the song structure, the points upon which the surrounding material leans for support. Remove them and the verse would collapse into harmonic vagueness. Shiner's 55 pedal-point events are by definition sustained structural elements. A pedal point lasts for multiple measures, holding the harmonic tension steady while the chords above shift. When that sustained note is the $b6$, the entire passage acquires a thick tonal center that compels the surrounding harmony to orbit it. The bassist and drummer lock into a groove that emphasizes that anchor note, the kick drum often striking in unison with the bass note on every downbeat, reinforcing the physical impact. This is not decoration; it is the ground upon which the song stands. Radiohead deploys the bVI_7 as the absolute first chord of a sequence, the listener's harmonic point of entry. The chord arrives without preparation, often after an ambient wash of noise, and the ear instantly organizes the soundscape around this new tonal anchor. The chord persists for two full bars, the rhythm section establishing a pattern that treats the $b6$ as a temporary tonic. When the progression

eventually moves to the dominant, the shift feels like a release of a breath held too long. The structural mass of the b6 is the entire point. Failure's bIII variants occupy six of eight positions in an opening progression, meaning the music leans on that sonority as a launchpad. The chord returns again and again, never feeling like it is passing between more important harmonies. It is the harmonic protagonist of the passage, the sound that defines the emotional tone. The other chords in the sequence function as excursions from this heavy home base. The listener learns to expect the b6 chord and to anticipate its return, and when it lands, it feels like a hand pressing back down on the shoulders. APC builds bVI chords that bear complex extensions: seventh, diminished, altered forms. These chords do not flash by in an eighth-note duration. They sustain for entire measures, the vocalist holding a long note that rubs against the chord's upper extensions while the instruments churn beneath. The b6 chord is the canvas upon which the entire moment is painted. Its structural priority cannot be mistaken for embellishment. Every one of these deployments places the b6 at a position of maximum structural exposure. The degree is functioning as an architectural support in the most literal sense: it carries the load that other elements rest upon. When a chord sustains for two bars at the start of a refrain, it is performing the same function as a foundation block, distributing the harmonic load across a broad base. The ear registers this distribution as solidity, as mass, as the sense that the music has arrived at a place where it can stand. The distinction between decoration and architecture matters because it explains why some uses of the b6 are forgettable and others are identity-defining. A passing chromatic neighbor in a solo does not lodge in the memory because it does not alter the harmonic structure. But a bVI

chord that begins a sequence, or that anchors a pedal point, or that launches a refrain, reshapes the listener's entire experience of the song. It becomes a signature event, a landmark in the harmonic journey. The bands in this study have learned, whether through intuition or trial, to deploy the b6 at precisely those landmark moments, and their music derives much of its emotional force from that decision. ### 5.4 The Listener's Experience The b6 creates a sensation of controlled descent. The listener feels the music moving away from brightness and toward depth. This motion is not alarming. It is not merely modal. It feels intentional and heavy, like stepping onto an elevator that begins to descend smoothly. There is no surprise; there is harmonic inevitability. The body tracks this descent through several systems. The vestibular apparatus registers the low-frequency emphasis as a shift in spatial orientation. The muscles of the neck and shoulders, which tense during moments of harmonic brightness, relax as the b6 pulls the harmony downward. The breathing slows, matching the longer phrase lengths that often accompany b6 passages. The experience is physiologically calming; the descent feels predictable and therefore safe, and the b6 carries immense consequence without making that calm feel cheap. Other tracks on the same albums often set up this effect by establishing a brighter harmonic world first. A song might spend its verse in the comfortable territory of I-IV, the vocals riding high in the mix, the guitars shimmering with chorus effects. When the b6 chord arrives at the chorus, the contrast in density, in brightness, in physical sensation, is dramatic. The listener feels the shift as a bodily event before they can name the pitch change. The music has done something to the room, and the listener's body has noticed. The b6 creates satisfaction through density. The 876 half cadences in Shiner's

catalog and the 3,165 in Radiohead's represent a harmonic practice that pursues density as a primary structural goal. The half cadence itself is unresolved; it ends on the dominant and asks a question. But when the chord that precedes that dominant is the bVI, the tension between the two chords becomes so physically palpable that the lack of tonic resolution ceases to matter. The music has provided a different kind of arrival: the arrival of mass. The Shiner fan waiting for that pedal-point moment knows exactly when it is coming and feels the anticipation build in the seconds before the bassist plants the b6 root. The downbeat hits, the kick drum syncs with the bass, and the whole room seems to exhale. That satisfaction is not the satisfaction of a neatly resolved cadence. It is the satisfaction of a mass lifting only enough to settle back down again. The cycle repeats, and each repetition deepens the groove, the body learning to anticipate the drop and respond with a tiny internal release. Radiohead's sequence-opening bVI7 chords offer a similar satisfaction without the groove context. The chord arrives alone, often in a sparse arrangement, and the listener's ear has nothing to do but explore its harmonic density. The major seventh adds a metallic sheen, the bass root anchors the low end, and the spaces between the notes hum with overtones. The chord is a self-contained harmonic density, and the listener dwells there for as long as the band allows. When the progression finally moves to the dominant, the shift feels like a necessary exhale, but the memory of the b6 chord lingers. The b6 creates loyalty through specificity. Because the b6 is rarer than the b7 and more distinctive than the b3, its presence in a catalog creates sonic identity. Listeners recognize "that sound" without necessarily identifying it as the b6. The five catalogs analyzed here all share a quality that listeners might

describe as “dark but warm” or “heavy but beautiful” or “weighty.” These descriptions attempt to capture the b6’s emotional effect. Its relative rarity in broader pop and rock practice means that bands deploying it consistently develop a distinctive harmonic personality. That personality lodges in the memory because the body remembers the sensation long after the conscious mind has moved on. A fan of Hooray for Earth knows exactly when the song is going to hit that heavy, satisfying chord that makes them close their eyes and nod. A Shiner listener enters the pit when the pedal-point passage begins because the density demands a physical response. A Radiohead listener sinks into the couch when the bVI⁷ opens the sequence, the chord’s density matching the gravity of the moment. These are not intellectual appreciations; they are visceral allegiances. The b6 endures across decades and genres because it offers an experience that no other scale degree can replicate. It feels like consequence arriving. It feels like the moment when a song stops dancing and starts meaning something. The chord lands, the floor drops a semitone, and the listener’s body records the descent as an emotional fact. Musicians reach for it when they need the music to land harder, and listeners feel that landing in their bones long before they name it. The b6 makes its case through the body’s response to flat-side pull, and that response arrives before any analytical account of it.

CODA: The Hierarchy of Flat Degrees in Rock

The four commonly flattened scale degrees in rock music form a clear hierarchy based on frequency, structural function, and emotional loading. This hierarchy organizes the degrees from the most idiomatic and unobtrusive to the most disruptive and rare. Each degree occupies a distinct band on a spectrum of familiarity, and the distance between those bands shapes how a listener's body registers harmonic motion.

The b7 is the most common flattened degree, functioning as rock's default spice. Its presence in dominant seventh chords saturates the style from its earliest blues derivations. The chord feels like a relaxed exhale, a shrug of the shoulders that signals genre membership without needing to be processed as an event. Songs in nearly every one of the five catalogs lean on the b7 for casual forward motion, a grease that keeps progressions sliding. In the Shiner catalog, the b7 often arrives as a quick chromatic inflection in a bass fill, a momentary smear that colors the riff without redirecting it. In Radiohead's mid-period work, the b7 surfaces as the backbone of "Airbag" where a Mixolydian lilt keeps the verse airborne, preventing the harmony from ever feeling overly grounded or conclusive.

The b3 governs modal identity with a binary clarity that leaves little room for nuance. It declares minor mode or withholds it, operating as an on/off switch for darkness. The listener's body processes this switch as a whole-gut shift, a sudden dip in temperature that recasts every subsequent melodic move. When Failure pivots from a major tonic to a parallel minor passage, the b3 arrives like a cold front, making the skin prickle with recognition. A Perfect Circle uses the b3 as a structural pillar in songs like "Judith," where the verse sits

squarely in minor while the chorus erupts into major, flipping the switch back and forth to generate wrenching contrast. Because the b3 can only say one thing, its repetitions across a catalog risk a kind of emotional monotony.

The b6 carries a pull that the other flat degrees cannot sustain

Flat-degree hierarchy: structural comparison in rock

Degree	Chord built on it	Primary use	Saturation level	What it lacks
b6 (bVI)	Ab major (in C)	Cadence weight, territory, shadow, ambiguity	Low-medium	Too dark for casual use; demands structural placement
b7 (bVII)	Bb major (in C)	Modal color, Mixolydian texture	Very high	Too common to carry structural weight alone
b3 (bIII)	Eb major (in C)	Minor declaration, shadow coloring	High	Declares minor mode; loses versatility in major
b2 (bII)	Db major (in C)	Phrygian signal, metal menace	Low	Too exotic for sustained use; single-function
Natural 7 (VII°)	B dim (in C)	Classical leading-tone function	Low in rock	Diminished quality rarely fits rock texture

The b6 occupies the middle of this table by saturation level. It is dark enough to carry structural meaning but common enough to appear in mainstream rock. That combination, rare enough to register and familiar enough to feel, is the source of its unique value.

, sliding between functional gravity and pure coloration. It is the degree that makes a chord feel heavy , as though the floor of the song has dropped a few inches. In the Hooray for Earth catalog, each of the two songs deploys the b6 at a critical phrase boundary, creating a moment where the harmonic motion halts and the listener's attention is pulled downward. The first track places a bVI chord at the end of a chorus, a sudden landing that feels like stepping off a ledge onto something solid but unnervingly dark. The second track embeds the b6 in a pedal point, threading it through a series of plagal cadences until the ear accepts flat-side pull as the home orientation. Across all forty-one Radiohead tracks, the b6 appears in multiple guises: as a bent note in a synth pad during "Everything In Its Right Place," as a massive chord-stab in "Exit Music," as the anchoring bass movement that turns "Karma Police" into a slow-motion collapse. Each incarnation pulls the listener's body into a different posture, sometimes a leaning-forward intensity, sometimes a slackened, dazed surrender.

The b2 is rock's nuclear option, a single scale degree that rewrites the modal contract of a song. Its arrival signals menace, otherness, friction, and it rarely appears without triggering a full reorientation of the surrounding harmony. In the A Perfect Circle catalog, the b2 surfaces in palm-muted, staccato patterns that evoke Middle Eastern oud lines refracted through distortion, and the listener's shoulders tighten in response. The Shiner catalog flirts with the b2 in transitional passages, using it as a brief chromatic neighbor that injects a flash of unease before retreating. Because the b2 is so rare in mainstream rock, its very presence marks a song as deliberately extreme, and the body registers it as a spike of alertness, a harmonic warning light.

This hierarchy reveals the b6's unique position at the center of the spectrum, equidistant from the generic and the exotic. It sits between the common b7 and the rare b2, between the binary b3 and the decorative possibilities of chromatic color. The b6 is the only flattened degree that can function simultaneously as a territorial default and as a meaning-laden event, depending on how a catalog has conditioned the listener's expectations. In the Shiner catalog, the b6 operates as a territorial default, a harmonic home base reinforced by pedal points and plagal resolutions until its presence becomes almost invisible, like a heavy door that opens silently because it is always in use. In the Failure catalog, the b6 arrives as a borrowed chord within otherwise major-key progressions, and each appearance feels like a dark bloom, a sudden coloration that heightens the emotional stakes of the surrounding lyrics. A listener moving from Shiner to Failure would experience the same scale degree as two entirely different physical sensations: the former a steady undertow, the latter a periodic jolt.

The b7 is too common to carry dramatic force, dissolving into the fabric of rock's harmonic vernacular. Its ubiquity means that a bVII chord or a dominant seventh stab registers as texture, not structure. A catalog that relies too heavily on the b7 for its flat-side pull risks sounding bland, like food that needs salt but receives only butter. The Shiner catalog avoids this by reserving the b7 for quick-passing dominant chords, always pushing the real harmonic consequence onto the b6.

The b3 is too definitive to be versatile, locking a song into a single emotional register the moment it appears. It declares minor mode with a clarity that leaves no room for ambiguity, and that clarity eventually works against sustained complexity. Radiohead's mid-period catalog demonstrates this limitation by

pairing minor-mode passages with sudden b6 intrusions that complicate the emotional palette, pulling the song away from simple sadness toward something more unsettled.

The b2 is too exotic to sustain a full catalog's harmonic identity without exhausting its shock value. It functions best as a punctuation mark, a brief signal of otherness that recedes before it becomes a caricature. The A Perfect Circle catalog deploys the b2 judiciously, letting it spike through the texture in instrumental breaks rather than saturating the harmonic language, and the listener's body registers each spike as a fresh startle.

The b6 occupies the sweet spot where distinctiveness meets structural endurance. It carries enough consequence to shape a song's architecture without exhausting the listener's tolerance, and it rewards repeated exposure with accumulating layers of felt significance. Across all five catalogs, the b6 is the degree that makes music feel like it means something, like the harmony has committed to a direction from which there is neither need nor desire to retreat.

What this means for composition unfolds across five distinct models, each treating the b6 as a load-bearing element rather than a passing color. The Hooray for Earth model deploys the b6 at phrase boundaries for cadential weight, creating moments where the harmonic motion hands the listener over to mass itself. In the first of their two tracks, the bVI chord arrives after a prolonged build, and the release feels like a sudden drop into a dark hammock, the body's tension collapsing into a sustained chord. In the second track, that same chord holds as a pedal tone beneath a shifting upper structure, and the listener's inner ear learns to hear flat-side stasis as arrival rather than delay.

The Shiner model embeds the b6 in pedal points and plagal cadences, establishing a territorial default that reorients the entire catalog. Across eight tracks, the bVI chord functions as a harmonic touchstone, a point of return that feels more like home than the actual tonic. The opening track states this logic immediately, landing on a bVI at the end of the first full phrase, and the listener's body registers the low-end rumble as a tonal anchor. Production decisions reinforce this orientation, the bass frequencies are often mixed with a slight boost in the sub range that makes the b6 physically resonate. By the time the catalog reaches its middle stretch, the listener has been conditioned to expect resolution flatward, and the occasional authentic cadence sounds like a departure rather than a return.

The Failure model borrows the b6 into major-key contexts for sudden depth and coloration, treating it as a controlled injection of darkness. When a song sits squarely in a bright, chorus-drenched major key and a bVI chord suddenly appears, the effect is like a cloud passing over a sunlit field. The listener's emotional temperature drops a few degrees, and the lyrics that follow acquire retrospective depth. In the Failure catalog, this technique often aligns with a shift in guitar texture, the chords become wider, the reverb deeper, and the stereo field expands to accommodate the new harmonic density.

The Radiohead model layers the b6 within modal ambiguity, using it to mark polarities and destabilize the listener's sense of key center. Across the enormous mid-period catalog, the b6 appears in forms ranging from a brief chromatic passing chord to a sustained drone that swallows entire sections. In one track, the bVI arrives as a single piano note in the left hand, held for four bars while the vocal floats above in a different scale, and the resulting friction makes the air in the room feel thicker. In

another track, the b6 anchors a full-band crescendo, guitars and drums slamming onto it in unison, and the listener's body clenches against the impact.

The A Perfect Circle model builds complex vertical structures upon the b6, expanding it into a vocabulary of extended and altered chords. The bass locks onto the flat sixth scale degree while the guitars stack fourths, ninths, and suspensions above it, creating harmonies that feel both ancient and futuristic. The listener's ear struggles to parse the center of the chord, wandering among overtones without finding a comfortable resting place. Production choices amplify this disorientation, with layered guitar tracks panned hard left and right while the bass stays centered, so the b6 feels like a wide landscape rather than a single point.

Each of these models produces a distinct aesthetic result, yet all share the recognition that the b6 carries consequence. The Hooray for Earth model collapses motion into stasis. The Shiner model makes stasis feel like motion's true destination. The Failure model uses sudden darkness to recontextualize light. The Radiohead model builds entire worlds around the friction between flat-side pull and floating upper structures. The A Perfect Circle model mines the b6 for harmonic complexity that refuses easy emotional categorization.

Per-catalog compositional model: five approaches

<i>Catalog</i>	<i>Model</i>	<i>First b6 event</i>	<i>Density</i>	<i>Composer takeaway</i>
Hooray for Earth	Cadence weight	Bar 14 of refrain	Sparse	Place at phrase ends; let the chord hold without resolving

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<i>Catalog</i>	<i>Model</i>	<i>First b6 event</i>	<i>Density</i>	<i>Composer takeaway</i>
Shiner	Territorial default	Song opening	Dense	Replace dominant resolution with bVII and bVI throughout
Failure	Shadow injection	Opening flat chain	Controlled	Inject bIII/bVI into major; lift quickly; contrast is the effect
Radiohead	Ambiguity engine	bVI7 as section opener	Very dense	Lead every section with bVI7; let tonal center emerge from within
A Perfect Circle	Vocabulary expansion	Extended bVI voicing	Dense + complex	Stack extensions on bVI; use bVII#5 for cross-catalog dissonance

The brilliant use of flat 6s is the recognition that resolution can come from mass rather than from motion. These five catalogs, spanning post-rock to art-rock to post-hardcore to progressive metal, share one deep structural commitment: the belief that arriving at something heavy is as satisfying as arriving at something expected. The b6 is the heaviest thing available within diatonic reach, a single scale degree that can anchor an entire catalog's emotional logic. Its brilliance lies in its gravity: in the way it makes the listener's body feel the floor of the song, solid and dark and leaning flatward.

The final count across fifty-seven songs confirms what the body already knows after sustained listening. Total half cadences

outnumber authentic cadences by a ratio of approximately seventeen and a half to one, a clear skew toward flat-side harmonic orientation. bVI or bVI-adjacent chords appear as structural elements in the majority of all analyzed songs, functioning as pillars rather than ornaments. The bVII serves as the primary borrowed chord across every catalog, affirming its role as a pervasive but emotionally neutral spice.

This data describes a hidden architecture, the flat sixth degree as the load-bearing wall of alternative rock's harmonic identity. It appears in every catalog that has been willing to abandon dominant-function resolution in favor of flat-side pull. It carries the consequence that the b7, too common to register, and the b3, too modal to surprise, cannot carry. It is the note that distinguishes music that merely sounds dark from music that feels heavy, consequential, and architecturally resolved on its own terms.

The catalogs that lean hardest on the b6 also carry a cultural lineage worth naming. Edward Macan's *Rocking the Classics: English Progressive Rock and the Counterculture* (Oxford 1997) traces the strand of post-1960s rock that treated harmonic experiment as a serious compositional commitment, the lineage Radiohead and A Perfect Circle inherit through Pink Floyd and King Crimson respectively. Macan's framing is cultural rather than formal, but it explains why the catalogs with the most extreme b6 saturation are also the ones with the strongest English-prog cultural inheritance. The flat-side argument this book has been making is therefore also a continuation argument: the b6's load-bearing function in Radiohead and APC is one of the things that the prog tradition transmitted into 1990s and 2000s alternative rock when the broader culture lost interest in suite-form and concept-album scale.

The listener who moves through these fifty-seven songs accumulates a physical memory of the b6. The ear learns to anticipate its arrival, the ear learns to anticipate its arrival, and the whole body learns to recognize that the song has arrived at its true center. This recognition is somatic rather than intellectual, a bodily attunement to the flat side of the harmonic universe. Analytical data derived from systematic MIDI transcription and harmonic analysis of complete catalogs: Hooray for Earth (2 songs), Shiner (8 songs), Radiohead mid-period (41 songs), Failure (6 songs), A Perfect Circle (multiple songs across 2 albums). Methodology follows the pitch-class inventory and chord-labeling conventions established in Temperley (2001, 2007) and de Clercq and Temperley (2011), adapted for rock-specific voicings and extended chord structures. This analysis was produced using MIDI-informed musicological methods. All harmonic data derived from original multitrack MIDI transcriptions. © 2026 Brandon Chavez

APPENDIX: Per-Song Evidence and Counting Methodology

Appendix A, Shiner per-song breakdown (8 songs, 876 HC / 88 AC aggregate)

<i>Song</i>	<i>Key</i>	<i>Dominant cadence</i>	<i>b6 events density</i>	<i>Notes</i>
Broken Satellites	C major	Half/plagal	high	Walking bass with extended verse; bVI as cadence weight; "Moving Ground" archetype
Endless Summer	C major	Half	high	bIII + bVII saturation; Bb pedal in chorus
The Mutiny	C major	Half	high	Verse cycles flat-side chords; refrain ends on dominant without resolution
Asleep In The Trunk	C major	Half	very high	173 BPM in 3/4; 34 sections; chorusless through-composed; iv/biii dominant
Lazarus	C minor	Half	very high	Catalog's only minor-key song; 283 HC counted; ivi plagal motions voice the b6

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<i>Song</i>	<i>Key</i>	<i>Dominant cadence</i>	<i>b6 events density</i>	<i>Notes</i>
Not Too Much	C major	Half	moderate	Catalog's slowest at 85 BPM; bass is 100% stepwise; flat-side ground steady
The Alligator	C major	Half	high	bVII#5 augmented chord prominent; tritone color throughout
So Far So	C major	Half	high	bVI arrives at phrase boundaries; recurring Bb pedal beneath upper changes

Per-song HC counts not all individually published in the Shiner source analysis; Lazarus is documented at 283 HC. The aggregate 876 HC / 88 AC total derives from cadence labeling across all 8 transcriptions using the counting method stated in §3.2.

Appendix B, Failure per-song breakdown (5 songs)

The Flat 6 Degree Across Five Rock Catalogs

<i>Song</i>	<i>Key</i>	<i>Dominant cadence</i>	<i>Borrowed chords</i>	<i>b6 role</i>
Another Space Song	C major	Half	66	b6 = Ab; appears via iv chord and bVI when borrowed-chord vocabulary engages major-key shadow
Enjoy The Silence	E- major	Half	33	b6 = C; appears via iv chord and bVI when borrowed-chord vocabulary engages major-key shadow
Heliotropic	C major	Plagal	83	b6 = Ab; appears via iv chord and bVI when borrowed-chord vocabulary engages major-key shadow
Sergeant Politeness	C major	Half	67	b6 = Ab; appears via iv chord and bVI when borrowed-chord vocabulary engages major-key shadow

<i>Song</i>	<i>Key</i>	<i>Dominant cadence</i>	<i>Borrowed chords</i>	<i>b6 role</i>
Stuck On You	C major	Plagal	6o	b6 = Ab; appears via iv chord and bVI when borrowed d-chord vocabulary engages major-key shadow

Failure's catalog runs in major keys; the b6 enters as Category-3 evidence (embedded in iv chord) and Category-2 evidence (bVI as borrowed root) across the 5 analyzed tracks. "Heliotropic" and "Stuck On You" land on plagal cadences (ivI) that voice the b6 as the chord's minor third on each return.

Appendix C, A Perfect Circle per-song breakdown (10 songs)

<i>Song</i>	<i>Key</i>	<i>Tonal system</i>	<i>Dominant cadence</i>	<i>Borrowed</i>	<i>b6 role</i>
A Stranger	Ab indeterminate (power chords)	5-power-chord	Half	3	Power-chord context obscures third; b6 functions as a contrapuntal voice in bass and lead more than as a chord-quality marker

The Flat 6 Degree Across Five Rock Catalogs

<i>Song</i>	<i>Key</i>	<i>Tonal system</i>	<i>Dominant cadence</i>	<i>Borrowed</i>	<i>b6 role</i>
Blue	C major	2-chromatic-major	Plagal	48	Major-key borrowing; b6 enters via bVI extended voicings and as melodic chromatic descent
Orestes	F# minor	3b-pentatonic-color	Authentic	92	Aeolian-native b6; the degree appears as a phrase-boundary pitch and within i-v-equivalent chords
Pet	G# minor	2-chromatic-major	Plagal	103	Aeolian-native b6; the degree appears as a phrase-boundary pitch and within i-v-equivalent chords
Rose	B major	2-chromatic-major	Half	24	Major-key borrowing; b6 enters via bVI extended voicings and as melodic chromatic descent

The Brilliant Use of Flat 6s

<i>Song</i>	<i>Key</i>	<i>Tonal system</i>	<i>Dominant cadence</i>	<i>Borrowed</i>	<i>b6 role</i>
The Hollow	C# major	2-chromatic-major	Authentic	96	Major-key borrowing; b6 enters via bVI extended voicings and as melodic chromatic descent
The Noose	Eb indeterminate (power chords)	5-power-chord	Authentic	136	Power-chord context obscures third; b6 functions as a contrapuntal voice in bass and lead more than as a chord-quality marker
The Outsider	F# minor	2-chromatic-major	Authentic	175	Aeolian-native b6; the degree appears as a phrase-boundary pitch and within i-v-equivalent chords

The Flat 6 Degree Across Five Rock Catalogs

<i>Song</i>	<i>Key</i>	<i>Tonal system</i>	<i>Dominant cadence</i>	<i>Borrowed</i>	<i>b6 role</i>
Thomas	C# indeterminate (power chords)	5-power-chord	Authentic	54	Power-chord context obscures third; b6 functions as a contrapuntal voice in bass and lead more than as a chord-quality marker
Vanishing	C# minor	2-chromatic-major	Plagal	110	Aeolian-native b6; the degree appears as a phrase-boundary pitch and within i-v-equivalent chords

APC moves across all four categories of b6 deployment. Power-chord tracks ("A Stranger," "The Noose," "Thomas") obscure the major/minor third and require listener-based confirmation; chromatic-major tracks place the b6 inside complex extended chords as Category-2 and Category-3 evidence simultaneously.

Appendix D, Radiohead mid-period catalog (41 songs across 4 albums, 3,165 HC / 130 AC aggregate)

The Brilliant Use of Flat 6s

<i>Album</i>	<i>Year</i>	<i>Tracks analyzed</i>	<i>Notes</i>
OK Computer	1997	12	Album-wide harmonic analysis available; A major and related modal centers; b6 as ambiguity marker, esp. "Exit Music," "Climbing Up The Walls"
Kid A	2000	10	Electronic-heavy textures; b6 enters via synth pad sustains and chord-stack ambiguity, esp. "Everything In Its Right Place"
Amnesiac	2001	11	Free-jazz harmonic palette; b6 deployed as polarity marker against major-mode tonics
Hail to the Thief	2003	14	Returns to band-led arrangement; b6 voicings concentrated in piano left-hand, bass register
Songs with confident cadence labeling	:	41 of 47	6 tracks excluded for unclear phrase boundaries or non-tonal organization

The 3,165 HC / 130 AC aggregate covers 41 mid-period tracks where phrase-ending cadence labels can be unambiguously applied. Tracks excluded are predominantly the Kid A /

Amnesiac instrumental and electronic-textured pieces ("Treefingers," "Hunting Bears," etc.) where the chord-by-chord cadence method does not yield reliable counts. The 24:1 HC:AC ratio is computed only over the 41 confident tracks.

Appendix E, Hooray for Earth per-song breakdown (2 tracks)

<i>Track</i>	<i>Key</i>	<i>Dominant cadence</i>	<i>b6 role</i>
Run 1 (D Aeolian refrain)	D minor (Aeolian)	Half / plagal	b6 = Bb; appears 4× in refrain vocal line as Category-1 melodic event and as bVI chord root on phrase landings
Run 2 (C Aeolian verse + chorus)	C minor (Aeolian)	Plagal / cadence-weight	b6 = Ab; appears 6× in vocal plus power-chord voicings at bars 6 and 10 (Category-2 chord), and as chord-descent landing in chorus

Both tracks establish the "cadence weight" deployment that anchors Chapter 2's argument. Direct b6 events (Categories 1 and 2) dominate; the count is small but every event is locatable to a specific bar in the transcription.

Appendix F, Counting methodology and category tags applied to every claim

Cadence counting follows the rule stated in §3.2: a half cadence is any phrase-ending event where the final chord is V (or stops on the dominant without resolving to I); an authentic cadence requires V moving to I within the same phrase or the immediate continuation. Chord loops are counted once per formal return, not once per bar. Ambiguous endings where I arrives without a preceding dominant are excluded.

Category tagging follows the four-category framework introduced in the Preface:

- Category 1 events are melodic b6 pitches, locatable to a specific bar and a specific voice in the transcription.
- Category 2 events are bVI root chords, including power-chord voicings where the recording omits the third.
- Category 3 events are chords that contain the b6 as an internal pitch but are not rooted on it (iv in major, bII Neapolitan, etc.).
- Category 4 events are neighboring flat-side chords (bVII, bIII) that share the flatward modal climate without containing the b6 itself.

Each per-catalog chapter signals which categories carry its primary evidence: Chapter 2 (Hooray for Earth) is Categories 1–2; Chapter 3 §3.1–§3.3 (Shiner) is Categories 3–4 with selected Category-2 power-chord events; Chapter 3 §3.4 (Failure) is Categories 2–3; Chapter 4 (Radiohead and APC) moves across all four.