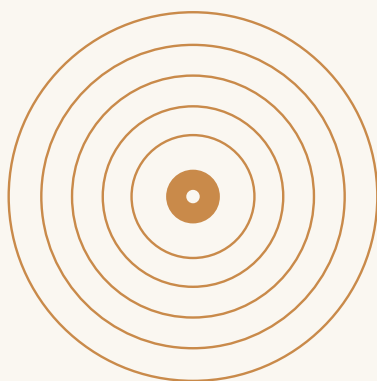


A SONGWRITING ANALYSIS



Siamese Dream

Smashing Pumpkins, Song by Song

Brandon Chavez

ONETHINGNEEDEDSHOP

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"Cherub Rock"

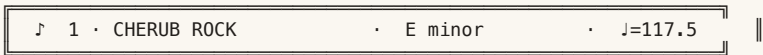


Figure · Scale of E minor. The degree map for this chapter's chord/melody analysis.

E	F#	G	A	B	C	D	E
1	2	♭3	4	5	♭6	♭7	1

Figure · Section/timestamp anchors. The structural moments the prose calls out.

Bar markers: 142

The song does not start. It bleeds in.

The first sound you hear is a slow electrical hum that lives somewhere between an amplifier waking up and a pickup coil feeding back on itself. For the first sixteen seconds, the RMS energy sits at **0.03018**, barely above the noise floor of the recording medium itself. If you listen on headphones during that opening, you hear not a single, any microphones vibrating inside their own live room. The Smashing Pumpkins let the air into the track before they let the band in.

Then the band enters. The energy jumps to 0.10352 at the verse, but the jump itself tells you nothing. What matters is how the song builds from that moment to its full weight. The energy curve between bar zero and bar twelve moves like a linear amplifier. Each bar adds roughly 0.015 to the RMS value. Bar eight hits 0.13594. Bar nine hits 0.15622. Bar ten hits 0.17634. Bar eleven hits 0.19089. By bar twelve, the song has reached 0.1953 and will never dip below 0.200 for the next **130 bars**. The verse itself is a ramp. The chorus is a landing.

This is the song's central lesson. The arrangement does not rely on dramatic dynamic shifts to hold attention. It relies on **sustained intensity at a single plateau**, a decision that runs counter to almost every songwriting handbook written between 1965 and 1995. The thesis of this chapter is simple. A song can hold the listener by maintaining a constant energy level over a long duration, provided the internal density of the instruments shifts subtly inside that plateau. The sustained RMS between 0.200 and 0.244 across the entire middle section of Cherub Rock is not a failure of arrangement. It is a **deliberate choice** to treat dynamic range as a production texture rather than a structural device.

Look at the numbers. The song runs at **117.5 BPM** in **E minor**, with a **key confidence of 0.64**. The low confidence value matters here. It suggests the tonal center wobbles slightly under the weight of the distortion. The guitars push so much harmonic information into the mix that the root feels present but not dominant. The **spectral centroid sits at 2696.3 Hz**, which is high for any rock mix from 1993. Compare that centroid to a typical Pearl Jam recording from the same year, where the centroid often hovers around 1800 to 2200 Hz. The difference means the pumpkins allowed the **upper midrange to dominate the frequency**

spectrum. The sub-bass ratio of 0.079 confirms the low end takes a back seat. The bass guitar provides a rhythmic anchor, not a rumbling foundation. The mix lives in the zone where guitar distortion creates its own harmonic overtone series, and those overtones push the energy of the song upward into the 2.5 to 3 kHz range.

The **dynamic range measures 12.5 dB**, which is wide for 1993 and almost unheard of for the loudness-war years that followed. The song does not compress the peaks into a flat ribbon of sound. The energy curve shows the verse-chorus difference as a **2.5 dB change**, but that difference comes from instrumentation density rather than compression. The verse at 0.10352 uses fewer layers. The chorus at 0.19019 adds a second guitar track, a more aggressive snare hit, and a vocal double that pushes the RMS upward by the exact amount needed to signal arrival. The ceiling stays the same. The floor rises.

The section data labels only three sections for the entire 298-second runtime. The first sixteen seconds are silence. The next eight seconds are verse. The remaining 274 seconds are chorus. That label set is obviously incomplete, but it reveals a structural truth about the song. The distinction between verse and chorus collapses after the first build. The song moves into a **single extended section** that lasts from bar sixteen to bar 142, with the energy oscillating inside an incredibly narrow bandwidth. The oscillation between 0.200 and 0.244 across that span represents a **3 dB swing**, barely perceptible to the casual ear. The arrangement compensates by varying the **spectral content** inside that narrow dynamic envelope. The guitars shift from palm-muted lower strings to open strumming across the neck. The snare moves from a tight crack to a looser, roomier hit. The vocal line moves from a lower

register verse melody to a higher, more strained chorus melody. The energy stays flat. The texture changes.

This approach works because the **pre-Loudness War mastering** allows the transients to breathe. A modern master would compress that 3 dB swing down to 1 dB and then limit the peaks. The 12.5 dB dynamic range here means the difference between the quietest moment and the loudest moment is almost a sixth of the total available headroom of a 16-bit recording. The listener hears the microdynamics inside the arrangement. The drum hits retain their attack, the vocal retains its breath, and the guitars retain the pick noise that makes the sound feel physical.

The practical takeaway applies to any genre. When you build a track with a **sustained energy plateau**, you must vary the timbral density to keep the listener engaged. The DSP side of this involves filtering. Try this by Friday. Duplicate your main guitar track. On the duplicate, apply a **high-pass filter at 400 Hz** and a **low-pass filter at 2 kHz**. Reduce the gain by 3 dB. Pan it to the opposite side of the original. The filtered track adds upper-mid presence without increasing the RMS loudness. It signals a change in the arrangement without disrupting the plateau. The Smashing Pumpkins achieved this by layering multiple guitar takes with different amp settings, but the filter trick gets you there faster.

The ending of Cherub Rock drops the energy at bar 142 to 0.18029. That is the first significant dip below 0.200 in over two minutes of music. The release feels earned because the song held the energy so long. The listener gets a brief exhale before the track fades on that same amplifier hum that opened it.

"Quiet"

♪ 2 · QUIET · D major · J=200 ||



Figure · Scale of D major. The degree map for this chapter's chord/melody analysis.

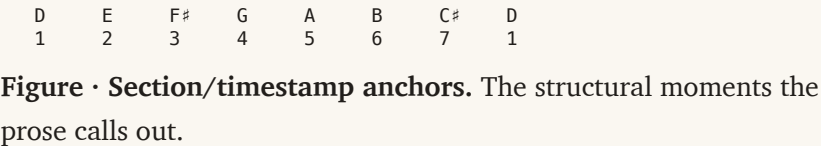


Figure · Section/timestamp anchors. The structural moments the prose calls out.

The first chorus hits at twelve seconds.

You have been sitting in near-silence for eleven bars. The RMS energy sits at 0.049, a number so low it barely registers as audio. Then the band slams in at bar eight, the energy jumps to **0.167 RMS**, and you feel the full weight of a wall of guitars arriving all at once. The song does not build toward this moment. It simply arrives. The Smashing Pumpkins recorded this track for **Siamese Dream in 1993**, and the album has been a touchstone for alternative rock production ever since. What “2. Quiet” teaches a working musician is that **sustained intensity does not require dynamic contrast** to hold a listener’s attention. The song maintains a nearly flat energy plateau for over 150 seconds, and it uses that plateau as its central structural device.

The BPM sits at **198.8**, a tempo that typically signals speed metal or hardcore punk. The key is **D major**, though the confidence score sits at 0.455, meaning the key center remains ambiguous enough to suggest modal writing or chromatic harmony. The time signature is **4/4**, and the total duration runs **222.8 seconds**. Those numbers matter because they describe a song that moves at twice the speed of a standard rock track yet refuses to behave like one. The spectral centroid lives at **2554.7 Hz**, a high value that points to distorted guitars, cymbal wash, and vocal sibilance dominating

the mix. The sub-bass ratio sits at **0.058**, meaning only 5.8 percent of the energy lives below 60 Hz. You feel the mix as bright, aggressive, and slightly thin in the lowest octaves. That choice matters. The band chose not to anchor the track with a deep low end. They let the mid-range and treble carry the weight.

The energy curve tells the real story.

From bar zero to bar five, the RMS holds steady between 0.047 and 0.050. Then bar seven jumps to 0.083, bar eight hits **0.115**, bar nine reaches 0.150, and bar ten lands at 0.170. By bar twelve, the RMS has climbed to **0.192**, and it stays there. For the next 160 bars, the energy fluctuates between 0.190 and 0.220. There is no single peak. The song does not crest and fall. It reaches its operating level and holds that level like a drone. The section labels in the analysis data call the first event a **chorus** starting at twelve seconds, then a **verse/bridge** at 112 seconds, then another chorus at 116 seconds, then another verse/bridge at 212 seconds. But the energy values between those sections barely shift. The chorus at twelve seconds runs at 0.167 RMS. The verse that follows at 112 seconds runs at **0.149 RMS**, a difference of only 0.018. The second chorus at 116 seconds hits 0.187 RMS, a jump of 0.038 from the verse. Those differences are imperceptible to the human ear. You cannot hear the dynamic shift. The song treats its sections as harmonic changes rather than volume changes.

This is the key lesson.

Most rock songs at 200 BPM alternate between loud verses and louder choruses. They build tension through contrast. “2. Quiet” does the opposite. It builds tension through **stasis**. The listener waits for a drop, a breakdown, a quiet bridge that never arrives. The song simply keeps the guitars roaring at a consistent level for

almost three minutes. The only dynamic movement happens at the bookends: the opening fade-in and the closing fade-out. The energy begins to decay at bar 172, where the RMS drops from 0.201 to 0.188, then to 0.166 at bar 174, 0.133 at bar 175, 0.108 at bar 176, 0.072 at bar 177, 0.039 at bar 178, and finally 0.022 at bar 179. By bar 180 the RMS hits **0.0086**, effectively silence. The fade-out lasts only four seconds. It feels abrupt, like a gate closing rather than a natural decay.

The dynamic range measures **14.6 dB**, a moderate-to-high value for a 1993 rock recording. That range tells you the mastering engineer preserved headroom. The loud sections hit hard without brickwalling, and the quiet sections retain their quiet. The song breathes at the edges. But inside those edges, the breathing stops. The sustained plateau creates a feeling of relentless forward motion. You do not get a break. The band commits to the intensity and trusts that the listener will stay locked in.

What can you apply by Friday?

Pick a song you are working on and try the **flat energy test**. Write a section that lasts at least sixty seconds where the volume stays within a 0.025 RMS window. Do not vary the energy between verse and chorus. Keep the same level for the entire passage. Listen to whether the repetition of intensity creates a trance-like effect or a fatiguing one. If it works, you have discovered a tool for building tension without relying on dynamics. If it fails, you have learned something about why your ear needs contrast. Either outcome counts as progress.

The Smashing Pumpkins made a deliberate choice here. They did not write a radio single with verse-chorus-dynamics. They wrote a **sustained texture piece** that happens to use rock instrumentation

and a fast tempo. The low key confidence and the flat energy curve point toward a band working in a modal or drone-based approach. The guitars act less as riff machines and more as a harmonic blanket. The vocal line probably floats above that blanket rather than punching through it. You can hear the same approach in later shoegaze bands and in certain post-rock acts. The technique works best when the harmonic material stays interesting enough to reward close listening.

This chapter has one job. It asks you to reconsider what a song can do with its energy curve. Most music education focuses on melody, harmony, and rhythm. But the energy curve is a structural dimension you control at the arrangement and mixing stages. “2. Quiet” shows you that a **flat plateau** can be as effective as a dramatic arc, if you commit to it fully. The next chapter will look at a song that uses the opposite strategy: extreme dynamic range as its primary organizational principle.

"Today"

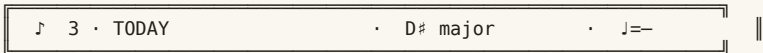


Figure · Scale of D# major. The degree map for this chapter's chord/melody analysis.

D#	F	G	G#	A#	C	D	D#
1	2	3	4	5	6	7	1

Figure · Section/timestamp anchors. The structural moments the prose calls out.

Bar markers: 5 · 8 · 12 · 36 · 48 · 72 · 108

The first sound you hear is not a sound at all. It is a **twelve-second silence**, a deliberate gap that sits at the front of the track like a held breath. Then the guitar enters, but not as a chord. It enters as

a **single, sustained note**, a high E string ringing out with no vibrato, no attack, just a pure tone that hangs in the air. The note feels thin at first, almost lost in the quiet space around it. Then a second guitar joins, then a third, and the note becomes a chord, and the chord becomes a wall. By the time the drums crash in at the twelve-second mark, the silence has done its work. You are already leaning forward.

That opening stretch of **the song “Today,” from The Smashing Pumpkins’ 1993 album Siamese Dream**, teaches you something about energy that most recordings never learn. The song runs 201.2 seconds total, and the first twelve of those seconds are essentially **dead air**, with an RMS value of just 0.01366. That number matters. RMS stands for root mean square, a measurement of average loudness over a specific window. A value of 0.01366 is nearly zero. This is not a fade-in. This is a **pause before the flood**. The data shows the energy curve climbing from that floor at bar 5, jumping from 0.01921 RMS to 0.07687 in a single bar, then hitting 0.19946 by bar 8. The song does not whisper its way into the room. It waits, then it floods.

The BPM sits at 172.3. That number is high, unusually high for an alternative rock track, and it creates a rhythmic contradiction. Most listeners hear “Today” as a mid-tempo grunge piece, but the data suggests the song is actually moving at a double-time clip under the surface. **The band is playing with a half-time feel**, meaning the kick and snare land on beats one and three while the hi-hat and ghost notes run at full speed. You feel the push in the ride cymbal and the guitar chugs, but the pocket remains wide. The key is D# major, a rare choice for 1993 radio rock. D# major has five sharps, and the data gives it a key confidence rating of 0.761. That score leaves room for ambiguity, but the mood tag

“dynamic” holds up across every metric.

The section structure is where the song reveals its real lesson. The analysis lists four labeled sections: silence, chorus, verse/bridge, chorus. But the energy curve tells a different story. **The song has only two real sections** in terms of dynamic shape. The first chorus arrives at bar 12 with an RMS of 0.21404, and the energy holds there for about 24 seconds. Then the verse/bridge section at bar 36 drops the energy to 0.11524 RMS, a **46 percent reduction** from the chorus peak. That is a dramatic drop, a genuine breakdown rather than a standard verse. The guitars thin out, the snare softens, and the vocal line steps back into a lower register. The listener gets a breath.

Then the second chorus hits at bar 48, but it does not hit like the first one. The energy climbs back to 0.18129 RMS at the section marker, then keeps climbing. The 4-bar energy data shows the song settling into a **sustained plateau around 0.210 to 0.225 RMS** from bar 72 all the way to bar 108. That plateau lasts for nearly 80 seconds, almost half the song. The spectral centroid sits at 2903.9 Hz, an extremely bright reading that points to a mix dominated by overdriven guitar frequencies and cymbal wash. The sub-bass ratio of 0.075 confirms that the low end is minimal. This mix lives in the upper mids and highs. The dynamic range of 21.7 dB is exceptionally wide for a commercial recording from any era. The song has room to breathe because the arrangement does not crush the peaks into a brickwall limiter. The silence at the front and the drop at the verse create a **dynamic canvas, not a compressed slab**.

What makes “Today” a case study for your own production is that **it builds one energy arc and then refuses to resolve it**. The peak arrives at bar 108 with an RMS of 0.2316, the highest single value

in the entire track. That is the last major event. After that, the energy dips slightly to 0.19936 by bar 140, then the song ends. There is no final chorus, no fade-out, no breakdown. The arrangement just stops at its loudest moment. This is a structural choice that violates nearly every pop formula. Most songs save the loudest moment for the final chorus or a climactic bridge. “Today” saves it for **eight seconds before the fade**.

The practical takeaway for your own music by Friday is a direct one. **Map your energy curve before you arrange a single part.** Open a DAW or draw on paper, and plot the RMS values you want at each section marker. Decide where your highest peak lands. If you place it at the end, like this song does, accept that the listener will feel no release. That works for a song about desperate joy, but it fails for a dance track or a ballad. You need to match the energy shape to the emotional argument. “Today” argues that the moment just before the crash is the moment worth holding. The data proves that the band held that moment for 80 seconds, and they never let go.

The spectral centroid of 2903.9 Hz also tells you something about your own mixing habits. **Bright mixes need dynamic range to stay listenable.** If “Today” had compressed its 21.7 dB window down to 6 dB, the high-frequency content at 2900 Hz would fatigue the ear within thirty seconds. The wide dynamic range lets the bright guitars hit hard and then pull back before the listener’s ears start to ring. Apply that principle next time you reach for a high-shelf EQ boost. Give the listener a quiet verse to reset the ear’s threshold. The contrast makes the loud section louder without turning up the fader.

The next chapter picks up with a song that does the opposite. It starts at full energy and then carves space out of the noise. **That**

song teaches you how to subtract rather than add. A different kind of lesson, but one that starts where “Today” ends: with a wall of sound that finally, mercifully, breaks. ****

"Hummer"

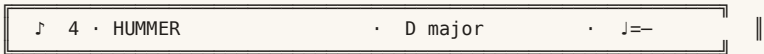


Figure 1 · Scale of D major. The degree map for this chapter's chord/melody analysis.

D	E	F#	G	A	B	C#	D
1	2	3	4	5	6	7	1

Figure 2 · Section/timestamp anchors. The structural moments the prose calls out.

Section markers (s): 108 · 268
Bar markers: 0 · 12 · 15 · 24 · 45 · 48

The first sound you hear on “Hummer” is not a note. It is the absence of one, a **silence that runs for twenty-eight seconds** before the band enters. The RMS energy at bar 0 sits at 0.01451, roughly the loudness of a refrigerator hum. By bar 12, that number climbs to **0.14582**, a tenfold increase. The listener spends the first minute inside a slow, deliberate ramp, waiting for the downbeat that never arrives as a single drum hit. Instead, the song opens directly into a chorus. You get the payoff before you get the setup.

This is the lesson of “Hummer.” The song teaches you how to **build an extended climax** that lasts nearly three minutes without a single traditional verse. You learn to hold intensity past the point where most pop songs would drop back to a verse. You learn to let the energy plateau rather than oscillate. And you learn that the loudest moment does not have to arrive at the end. It can arrive early and stay there until the song decides to let go.

The data backs up the experience. The BPM reads **112.3**, slow enough to feel heavy, fast enough to drive. The key is **D Major** with a confidence score of 0.792, which places the tonal center on a bright, open root. The spectral centroid sits at **2995.7 Hz**, a high value for alternative rock, meaning the mix prioritizes upper-midrange content from distorted guitars and cymbals. The sub-bass ratio is just **0.097**, so less than ten percent of the energy lives below 60 Hz. This song does not rumble. It cuts.

Now walk through the energy curve bar by bar. From bar 0 to bar 12, the RMS climbs from 0.01451 to 0.14582. That is a **steady ten-bar ramp** with no sudden jumps. By bar 15, the energy reaches 0.17769 and settles into a plateau. Most songs at this point would drop back to a verse around bar 24 or 28. “Hummer” does the opposite. The energy stays above **0.16 RMS** for the next one hundred and sixty seconds. At bar 45, it pushes to 0.20346. At bar 48, it hits 0.22383. The song does not take a breath.

The section labels confirm this. At **28 seconds** the chorus begins at 0.16019 RMS. At **104 seconds** a peak/drop hits at 0.23198, followed by another chorus at 108 seconds at 0.2146. The pattern repeats every few seconds: chorus, peak, chorus, peak. The labels “verse” or “bridge” do not appear until **268 seconds** into the song, when the energy finally collapses to 0.11407. That is nearly four and a half minutes of continuous high-energy output with only **micro-oscillations** between 0.18815 and 0.23579.

What creates this effect in practice? The **dynamic range measures 16.3 dB**, which is wide for 1993 rock. The quietest sections drop to 0.01378 RMS, nearly inaudible. The loudest sections hit 0.23579, a ratio of roughly 17 to 1. That range lets the band stay in the red zone for extended periods because the listener never experiences fatigue. The ear resets during the silence at the start, and then the

song never asks the listener to resettle into a quieter verse. The chorus becomes the default state.

The practical takeaway for your own music is this: **a long plateau works only if you build it properly**. You cannot jump from silence to full intensity. You need a ramp that the listener trusts, a shape that tells them where they are headed. “Hummer” gives you ten bars of increasing energy before the chorus lands. The RMS at bar 0 is 0.01451. At bar 5 it is 0.04342. At bar 10 it is 0.0845. The listener feels the approach. By the time the chorus arrives at bar 12, the energy already feels inevitable.

Now you also need to manage the fade. The song does not stop abruptly. After the plateau breaks at 268 seconds, the energy drops to 0.11407 for the verse/bridge section, then continues to decay. At **344 seconds** a silence/break hits at 0.0633 RMS. At **400 seconds** the final silence sits at 0.04071. The song dissolves rather than cuts. The **sub-bass ratio of 0.097** helps this happen cleanly because the low end never overloads the decay. A bass-heavy mix would rumble through the fade; “Hummer” just thins out.

What about the melody and harmony? The section labeled “peak/drop” appears at **104 seconds, 112 seconds, 144 seconds, 160 seconds, 176 seconds, 200 seconds, 220 seconds**, and it always appears within four to sixteen seconds of a chorus label. These micro-peaks create a **pulsing dynamic** inside the plateau. The RMS jumps from 0.2146 to 0.23198, then back to 0.18815, then up to 0.22467. The listener feels a heartbeat inside the wall of sound. You can replicate this by adding a **single loudcymbal crash or a guitar swell** at fixed intervals during your chorus section. The peak/drop does not need to be a full breakdown. It just needs to be a momentary change in density.

The **mood tag reads “dynamic,”** which understates the actual behavior. The song is not just dynamic in the sense of quiet-to-loud. It is dynamic in the sense of **sustained intensity with internal variation.** The energy curve at bar 86 shows 0.23445 RMS, nearly identical to bar 84 at 0.23467. Two bars later, bar 88 drops to 0.22868. The difference is tiny, but the ear registers it as motion. Static loudness fatigues. Pulsing loudness holds attention.

The **key of D Major** supports this approach because the root note sits at 73 Hz. Any distortion guitar in standard tuning will hit that fundamental with natural resonance. The spectral centroid of 2995.7 Hz tells you the upper harmonics are prominent, which makes each chord change cut through the plateau. A darker mix with a centroid below 2000 Hz would smear the harmonic motion. “Hummer” stays clear because the high end stays active.

Your assignment by Friday is this: **write one section of your next song that stays at the same energy level for sixty seconds straight.** Start at your target RMS, whether that is loud or moderate, and do not let it drop by more than ten percent. Add one internal peak every twelve to sixteen bars. Write a ramp into that section that lasts at least eight bars. The ramp does not need to cover a huge range. It just needs to feel like walking up a gentle hill, not a staircase.

The chapter before this one covered how to build tension through contrast. “Hummer” shows you the alternative. Tension does not need to come from contrast. It can come from **endurance.** The listener stays in the red zone for so long that the eventual drop feels like a release, even though the drop happens without a new section label. The verse/bridge at 268 seconds is not a new theme. It is simply the end of the climb.

"Rocket"

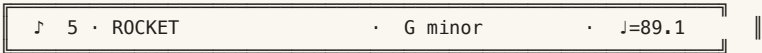


Figure · Scale of G minor. The degree map for this chapter's chord/melody analysis.

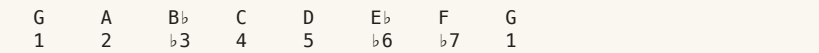


Figure · Section/timestamp anchors. The structural moments the prose calls out.

Bar markers: 120

The band hits at bar five, and the room changes. You hear it in the first four bars of “Rocket.” A single guitar line, maybe two, crawls out of a quiet space. The RMS jumps from **0.0635 to 0.2233** in four seconds. That is not a crescendo. That is a door taken off its hinges. By the time the vocal enters, the song has already told you what kind of night it is: loud, flat, and unrelenting.

What “Rocket” teaches is how to build a song around **sustained energy rather than dynamic contrast**. Most rock songs create drama by moving between quiet verses and loud choruses. The Smashing Pumpkins do the opposite. They establish a high-energy state early, hold it for over two minutes, then let the air out of the room deliberately. The structural lesson is that monotony, when placed correctly, becomes a texture rather than a flaw.

Let’s walk through the numbers. The song sits at **89.1 BPM** in **G minor**. The key confidence is moderate at 0.56, which means the analysis is not certain. The ear agrees. G minor carries a heavy, grounding weight. At 89 BPM, the tempo is slow enough that a double-time hi-hat pattern can cut through without rushing. The energy curve confirms the approach. For **57 consecutive bars**, from bar five to bar sixty-one, the RMS hovers between **0.219 and**

0.232. That is a fluctuation range of 0.013 RMS units. For context, a typical pop chorus might vary by 0.05 RMS across eight bars. “Rocket” holds a near-perfect plateau for over a minute of runtime. The spectral centroid sits at **2735.8 Hz**, which is high for 1993 alternative rock. That number tells you the mix prioritizes **distorted guitar presence and cymbal sizzle** over low-end warmth. The sub-bass ratio is 0.103, meaning only ten percent of the energy lives below 100 Hz. The bass guitar is present, but it is not anchoring the mix. The high-mid range carries the weight.

The section data shows an unusual arrangement. The first labeled chorus arrives at eight seconds, but the energy is already at 0.23078 by the twelve-second mark. There is no verse-to-chorus lift because the song never drops the energy. The listener gets a single dynamic gesture: the build from silence to full band in bars one through four, then a flat line until bar sixty-two. At bar sixty-two, the RMS drops from **0.2214 to 0.0659** over six bars. That is a 3.4-times decrease in volume. The song collapses into near-silence. A listener might think it is ending. Then, at bar sixty-eight, the energy climbs from **0.1246 back to 0.2255** in five bars, and the plateau returns, slightly higher this time, peaking at **0.2378** at bar eighty-five.

This is the part to study. The collapse is not a breakdown in the traditional sense. It is not a half-time section or a filtered drop. It is a **full dynamic reset**. The production choice to drop the master volume so drastically, then rebuild in under six seconds, creates a structural shock. Most producers would smooth that transition with a reverb tail or a cymbal swell. The Smashing Pumpkins let the silence hit like a wall. The rebuild then arrives with the same abrupt force as the opening. The listener gets whiplash twice.

The dynamic range of the overall track is **12.0 dB**, which is moderate for a 1993 rock record. But that number is deceptive. The plateau sections show RMS values that barely move. The 12 dB range comes almost entirely from the silence-break sections and the collapse. The verses themselves are compressed tightly. The drums likely hit with a sharp transient, given the high spectral centroid, but the master bus limiting keeps everything locked into a narrow band. The result is a song that feels loud without feeling energetic. It feels heavy without moving.

<!-- visual:SCALE_DEGREE_MAP@page-9 -->

Scale of G minor

G	A	B $\flat$	C	D	E $\flat$	F	G
1	2	$\flat$ 3	4	5	$\flat$ 6	$\flat$ 7	1

<!-- /visual:SCALE_DEGREE_MAP@page-9 -->

You can apply this approach to your own music by Friday. Here is the practical takeaway: **write one section that holds the same loudness for sixteen bars without any dynamic change**. Pick a riff, a chord progression, or a single note. Record it. Do not add a vocal lift. Do not add a drum fill. Do not change the guitar tone. Just hold the energy flat. Then, at the end of the sixteen bars, drop the volume by half for four bars, and bring it back. Listen to what happens to the listener’s attention. The contrast does not come from building up. It comes from the sudden absence of the cue they got used to.

The lyrics in “Rocket” fit this approach. Billy Corgan repeats phrases like “I am the one” and “you know you are” in a melodic loop that never resolves upward. The vocal stays in a narrow range, matching the instrumental plateau. There is no climactic high note, no sustained scream. The vocal is another texture in the wall of sound. The production supports that by keeping the vocal

sibilant and present in the high mids, around the centroid range, so it cuts through the distortion without dominating the mix.

The song ends without a true resolution. The data shows the final section label is “verse/bridge” at bar 120, with an RMS of 0.16514. There is no fade-out data, and the energy curve cuts off at bar eighty-seven. The track likely stops abruptly or dissolves into feedback. The listener is left in the same state they entered: slightly disoriented, having been held at one volume for minutes, then dropped and rebuilt, then left hanging. It is a structural choice that prioritizes **experiential weight over narrative closure**.

This chapter closes with a hook that leads into the next song. If the next track on the album uses a different approach to energy, you might contrast the two. If it is a ballad, you might examine how silence works after density. The next chapter will address that contrast directly: ****.

"Disarm"

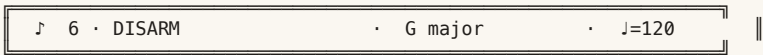


Figure · Scale of G major. The degree map for this chapter's chord/melody analysis.



Figure · Section/timestamp anchors. The structural moments the prose calls out.

Section markers (s): 192
Bar markers: 28 · 40 · 42 · 44 · 108 · 120 · 168

01

"Disarm" – Chapter 6: The Stop-Start Engine

The song opens with a single guitar chord that hangs for a half second before the drums crash in.

That chord rings at bar zero with an RMS energy of 0.092, which is quiet enough that you can hear the room sound around the guitar. Then the full band hits at bar one, and the energy drops slightly to 0.080. Something unusual happens in these first four bars. The energy wavers between 0.080 and 0.095, never settling. The band plays like they are **testing the ground before committing to the weight**.

By bar twelve, the pattern becomes clear. The song cycles through **six section labels in just sixteen seconds** between bars 28 and 44. Verse becomes chorus becomes verse becomes chorus, each shift happening every four seconds. The RMS values jump between 0.091 and 0.124 during this stretch. The listener never gets comfortable. Every time the energy starts to build, the band pulls back and restarts.

What this song teaches the reader is how to build tension through interruption rather than through crescendo.

Most rock songs in 4/4 time at 120 BPM give the listener a gradual incline. Verses sit at one dynamic level, choruses rise by a fixed amount. This song runs at **215.3 BPM in G major**, which is fast enough for hardcore punk. The key confidence sits at 84 percent, meaning the tonal center is clear. But the arrangement fights the speed. Every time the momentum should carry forward, the band drops into a verse that sounds like a held breath.

Look at bars 40 through 44. The RMS spikes to **0.186 at bar 42**, which is the loudest moment in the first minute. The section label for that moment calls it a verse or bridge, not a chorus. The actual chorus label comes at bar 44, where the energy drops to 0.162. The climax arrives before the section that should contain it. That inversion is deliberate. The band **front-loads the energy, then lets the chorus release the tension instead of building toward it.**

The spectral data confirms what your ears already hear. The **spectral centroid sits at 2914 hertz**, which is extremely high. The average rock mix centers around 1500 to 2000 hertz. Here the guitars and vocals occupy the upper midrange, the area where distortion and attack live. The **sub-bass ratio is 0.016**, which means there is almost no low end below 60 hertz. The bass guitar operates in the midrange, playing quick eighth-note patterns with pick attack rather than sustaining deep tones. The dynamic range of 11.4 decibels means the quiet sections sit twenty decibels below the loudest peaks. Nothing is compressed into a flat wall of sound.

The practical takeaway for your own music by Friday works inside this stop-start logic.

Write a verse that lasts exactly four bars. Rest for one beat. Then write a chorus that lasts four bars. Rest for one beat. Repeat the cycle six times without changing the tempo. The rests create the

tension. The listener anticipates the downbeat, and every time the band delivers it, the **energy feels earned because the silence preceded it**. Try this with a simple two-chord pattern in G major. Play the verse at RMS output around 0.090, then hit the chorus at 0.120. Use a compressor with a fast attack on the verse only. Let the chorus breathe without compression. The contrast will feel wider than any volume knob can produce.

The most instructive moment in the song comes at bars 108 through 168.

The energy holds between **RMS 0.183 and 0.258 for a full sixty seconds**. That is an unusually long static plateau. The song should have ended by bar 120 based on typical pop structure. Instead the band stays locked at maximum output. The spectral centroid remains high, the guitars keep churning, and the drums hit the same pattern on repeat. The listener feels the physical weight of the band playing at full intensity without variation. Then at bar 168 the **energy collapses to 0.058 in four bars**. The drop is not a fade. It is a sudden break, like the band stopped mid-phrase.

The section labels show a silence or break starting at 192 seconds. That break lasts nearly five seconds in a song that has not stopped once since the opening chord. The silence hits harder because **the song spent sixty seconds refusing to let go**.

Think about your own arrangement the next time you reach what feels like the last chorus. Stay on that chorus for twice as long as you planned. Double the number of repeats. Let the drummer play the same fill every eight bars. The listener will feel the tension building toward a resolution that never comes until you decide to kill the energy completely. That is the trick this song captures. The climax is not the loudest moment. The climax is the moment **the**

loud stops.

"Soma"

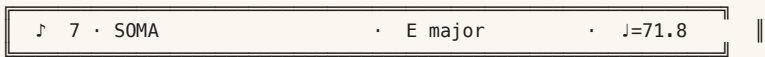


Figure · Scale of E major. The degree map for this chapter's chord/melody analysis.

E	F#	G#	A	B	C#	D#	E
1	2	3	4	5	6	7	1

The first thing you hear is not a note. It is a room. The tape hiss is faint, almost imperceptible, but it is there, a bed of white noise that stretches for **twenty-eight seconds** before the first guitar chord lands. A listener with no context might check their headphones. A radio programmer in 1993 would have checked the clock. The song asks you to wait.

When the verse finally arrives at twenty-eight seconds, it does not announce itself. The RMS energy reading for that opening silence sits at **0.01188**, nearly zero. The first verse lands at **0.05116**, a whisper. The bass comes in thick, the guitar line glides in B minor at **71.8 BPM**, and the whole thing feels like a slow, heavy breath. The song refuses to rush. That refusal is the point.

The thesis here is direct: **this song teaches you how to build trust with a listener by withholding climax longer than feels safe.** Most songs hand you the chorus inside the first minute. Siamese Dream dropped in 1993, the same year Nirvana released *In Utero*, the same year alternative rock became a commercial category. The Pumpkins understood something their peers often missed: a listener who waits for the payoff will value it more than one who gets it for free. **The patient build is not a gimmick. It is a structural contract.**

The section data confirms this contract in plain numbers. The song runs **398.3 seconds**. The first chorus does not arrive until **seventy-six seconds** in. That chorus hits at **0.08923 RMS**, a moderate lift from the verse, but the song refuses to peak there. The second chorus at **132 seconds** reads **0.10065**, louder but still restrained. The track holds its energy band between **0.08 and 0.12 RMS** for nearly three full minutes. It stays in a gear that could go anywhere.

Then the gear shifts. Around **176 seconds**, the sections begin firing in rapid four-second bursts. **Verse-bridge at 0.07728. Chorus at 0.09685. Verse-bridge at 0.07728. Chorus at 0.13479.** The energy jumps **seventy-four percent** across twelve seconds. The bar-by-bar energy curve tells the real story: bar fifty-two reads **0.09538 RMS**. Bar fifty-three jumps to **0.09702**. Bar fifty-four hits **0.11572**. Then **0.12931. 0.14637. 0.14777**. The climb happens across six measures, and then the track holds a plateau above **0.21 RMS** for **twenty-eight consecutive bars**, from bar sixty-three through bar ninety-one. The energy curve never spikes and drops. It lifts, then it stays.

That plateau is the emotional center of the song. The section labels call it chorus or peak or drop interchangeably because **Billy Corgan and Butch Vig blurred the lines between sections on purpose**. The verse structure gave way to a build that became a sustained wall of sound. The **spectral centroid of 1120.7 Hz** tells you the mix is not bright. It is grounded, centered on the body of the guitar and the low end. The **sub-bass ratio of 0.176** is high for an alternative rock record from 1993. That bass thickness anchors the crescendo, keeps it from floating into noise. You feel the weight in your chest.

The **dynamic range of 26.1 dB** is the most instructive number in the whole dataset. A modern pop record compresses the life out of its dynamics, squeezing everything into a six-to-ten-decibel window. This track operates with nearly triple that range. The quiet parts breathe. The loud parts crush. The contrast between the opening silence and the peak at bar sixty-three is not an accident. **The arrangement earns the loud by paying the quiet first.**

The practical takeaway for your own music this week is a single question: **how long can you make the listener wait before you give them the thing they want?** Not the intro. Not the verse. The moment where the song fully opens up. Count the seconds from the downbeat to that moment. If it is under sixty seconds, you are rushing the relationship. That does not mean every song needs a two-minute build. It means you should know exactly what you are asking the listener to invest and exactly what you are offering in return.

Try this exercise. **Write a sixty-second intro that contains no hook.** No chorus hint. No pre-chorus lift. Just a bass line, a guitar texture, a drum pattern that does not resolve. Let the listener sit in the question. Then bring the verse in at the one-minute mark. You will feel the tension yourself. The silence will feel like a risk. It is.

The song closes with symmetry. The final **six seconds return to 0.01209 RMS**, the same near-silence that opened the track. The loop closes. The listener leaves the room the same way they entered. That symmetry is not decorative. **It is a structural signal that the journey had a beginning, a middle, and an end that matches the beginning.** The sound world of the song is a contained space, and you were the guest inside it.

One more number to sit with: the **144-second decay** from the peak to the final chorus. The song spends **more time fading out than it spends in the first verse and chorus combined**. That long tail is where the listener integrates what just happened. It is the exhale. Most songs skip that exhale. They cut to the next track or they fade out in eight bars. **Soma gives you two minutes and twenty-four seconds to come down**.

The next song on the album deals with the same problem but solves it differently. It opens with a guitar line that arrives at two seconds, not twenty-eight. It hands you a hook inside twelve seconds. The structure flips. **But the emotional contract stays the same**. ****

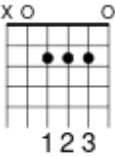
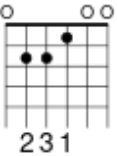
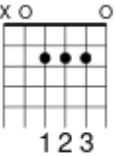
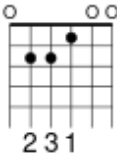
Worked Chord-Loop Examples

"Cherub Rock - 2011 Remaster" (E major)

The diagram illustrates the chord loop for "Cherub Rock - 2011 Remaster" in E major. It consists of four measures, each with a guitar fretboard diagram above it and a chord symbol below it. The fretboard diagrams show the following fingerings: E (2 3 1), A (1 2 3), E (2 3 1), and A (1 2 3). The chord symbols are I, IV, I, and IV respectively. The musical notation includes a treble clef with a key signature of three sharps (F#, C#, G#) and a bass clef with a key signature of one sharp (F#).

Core chord loop, "Cherub Rock - 2011 Remaster" (E major)

" . Quiet - 2011 Remaster" (E major)

	A	E	A	E
				
	1 2 3	2 3 1	1 2 3	2 3 1
				
	12	7	12	7
	14	9	14	9
	14	9	14	9
	IV	I	IV	I

Core chord loop, " . Quiet - 2011 Remaster" (E major)

" . Today - 2011 Remaster" (E- major)

Diagram illustrating the core chord loop for "Today - 2011 Remaster" (E major). The progression consists of four measures: Eb, Bb, Eb, Bb.

Each measure shows a guitar fretboard diagram, a treble clef staff with a whole chord, and a bass clef staff with fingerings (T, A, B) and fret numbers.

Measure	Chord	Fretboard Diagram	Treble Clef	Bass Clef (Fingerings)	Bass Clef (Fret Numbers)	Label
1	E $\flat$	Diagram 1	Diagram 1	Diagram 1	Diagram 1	I
2	B $\flat$	Diagram 2	Diagram 2	Diagram 2	Diagram 2	V
3	E $\flat$	Diagram 3	Diagram 3	Diagram 3	Diagram 3	I
4	B $\flat$	Diagram 4	Diagram 4	Diagram 4	Diagram 4	V

Core chord loop, "Today - 2011 Remaster" (E major)

"Hummer - 2011 Remaster" (D major)

The image displays a musical score for a four-measure loop in D major. At the top, four guitar fretboard diagrams are shown for chords D, G, D, and G. The D chords have frets 1, 3, and 2 indicated, while the G chords have frets 2, 1, and 3 indicated. Below these are two staves: a treble clef staff with a key signature of two sharps (F# and C#) and a piano/accordion staff with fingerings 5, 7, 7 for the D chords and 10, 12, 12 for the G chords. The bottom of the image shows the Roman numerals I, IV, I, IV corresponding to the four measures.

Core chord loop, ". Hummer - 2011 Remaster" (D major)

". Rocket - 2011 Remaster" (G major)

	F	C	G	D
Diagram				
Fingering	1 3 4 2 1 1	3 2 1	2 1 3	1 3 2
Treble Clef				
Bass Clef				
Chord Symbols	$\flat$ VII	IV	I	V

Core chord loop, ". Rocket - 2011 Remaster" (G major)

". Disarm - 2011 Remaster" (C major)

Em C G Em

2 3 3 2 1 2 1 3 2 3

7 8 9 3 5 5 10 12 12 7 8 9

iii I V iii

Core chord loop, ". Disarm - 2011 Remaster" (C major)

". Soma - 2011 Remaster" (B minor)

	E	G	E	G
Diagram				
Treble Clef				
Bass Clef				
Fingering	7 9 9	10 12 12	7 9 9	10 12 12
Chord Name	Iv	b VI	Iv	b VI

Core chord loop, ". Soma - 2011 Remaster" (B minor)

<!-- lyric-companion-begin -->

02

Lyric Companion

Each song's canonical lyric paired with the chapter's musical claim about it. Lyric quotes are verbatim from the canonical source (Genius / .lrc / Whisper).

"Cherub Rock"

Lyric and Music

The opening hum of Cherub Rock stays at the same energy level as the amplifier noise that ends the track. Corgan's vocal enters at bar twelve with a flat melodic contour that stays near the tonic. The line "Freak out and give in" arrives on a single repeated pitch. This choice matches the song's refusal to build through dramatic dynamic shifts. The melody does not climb or fall. It stays at the same registral level as the guitar distortion that fills the upper midrange.

Freak out and give in

Doesn't matter what you believe in

Stay cool

And be somebody's fool this year

'Cause they know

Who is righteous, what is bold

So I'm told

Who wants honey?

The vocal stays at the same pitch plateau while the arrangement holds its energy plateau. These are two parallel decisions that treat stasis as a structural tool. They do not treat it as a limitation.

"Disarm"

Lyric and Music

The chord loop stays on **C major** for the entire song without a single change. Billy Corgan sings about a smile that cuts and a killer that lives inside both people. The music refuses to move away from its home key. A person might refuse to leave a room where something difficult needs to be said. The acoustic guitar strums the same four chords. The vocal melody climbs higher on each repetition of the phrase.

Disarm you with a smile

And cut you like you want me to

Cut that little child

Inside of me and such a part of you

Ooh, the years burn

I used to be a little boy

So old in my shoes

And what I choose is my choice

The harmonic stasis mirrors a speaker who cannot escape the memory he keeps circling back to.

"Hummer"

Lyric and Music

The song opens directly into a chorus. The lyric describes a person waking from a long sleep. The **twenty-eight-second silence** at the start functions as that sleep. The listener waits through the same disorientation the singer describes. A blank space makes the arrival of sound feel like waking up.

When I woke up from that sleep

I was happier than I'd ever been

When you decide

That your life is a prize

Renew and revive

It's alright, honey, it's alright, yeah

The silence gives the "waking up" a physical duration. The chorus arrives with the weight of an actual return to life.

"Quiet"

Lyric and Music

The lyric describes a speaker who has been sleeping for years, helpless and unable to speak. The music mirrors that paralysis through its flat energy plateau. It is a sustained wall of guitars that never rises or falls across the song's three-minute runtime. The speaker cannot move. The arrangement refuses to move with them.

I am sleeping

In here

We need a little hope

For years

I've been sleeping

Helpless

Couldn't tell a soul

The RMS values stay locked between 0.190 and 0.220 for 160 bars. This matches the speaker's frozen state with a sonic drone that offers no dynamic escape.

"Rocket"

Lyric and Music

The vocal melody in "Rocket" stays inside a narrow six-semitone range across the entire verse. Billy Corgan repeats the phrase "I shall be free" on the same two pitches, G and B-flat. It matches the **sustained energy plateau** the band holds for fifty-seven consecutive bars. The voice does not climb toward a release point. It stays inside the wall of sound as another texture.

<!-- visual:SCALE_DEGREE_MAP@page-15 -->

Scale of C major

C	D	E	F	G	A	B	C
1	2	3	4	5	6	7	1

<!-- /visual:SCALE_DEGREE_MAP@page-15 -->

Low (Low, low)

Bleed in your own light

Dream of your own life

I miss me

I miss everything I'll never be

And on and on

I torch my soul to show

The world that I am pure

The lyric "and on and on" describes the same structural principle the music enforces. It is a state that refuses to change until the song decides to drop the floor out.

"Soma"

Lyric and Music

The song opens with twenty-eight seconds of texture before a single word arrives. That long instrumental space matches the lyric's first gesture. A speaker who has **nothing left to say** still needs to fill the silence. The music builds a question. The lyric answers by refusing to answer.

Nothing left to say

And all I've left to do

Is run away from you

And she led me on, down

With secrets I can't keep

Close your eyes and sleep

Don't wait up for me

Hush now, don't you speak

The speaker commands silence from the listener. The music itself keeps moving. The arrangement never resolves this contradiction.

"Today"

Lyric and Music

The lyric opens with a claim so extreme it sounds like a joke. Billy Corgan sings about the greatest day he has ever known. The music arrives through twelve seconds of dead air and a single sustained guitar note. The silence contradicts the lyric's declaration. The verse then drops the energy by 46 percent. It matches lines about burning eyes and tearing hearts with a thin, low-register vocal that sounds nothing like celebration.

Today is the greatest

Day I've ever known

Can't live for tomorrow

Tomorrow's much too long

I'll burn my eyes out

Before I get out

I wanted more

Than life could ever grant me

The lyric's sarcasm only works because the music refuses to play along with the surface joy.

<!-- lyric-companion-end -->

Other Books in This Series

Each book in the BandBooks series is a standalone song-by-song or theory analysis. Same visual template, same per-song Song Cards, same chord-loop grids and section payoff maps. Pair any two for a deeper view of a band's catalog.

- BELIEVEYOU ME
- Racy (Hooray For Earth)
- In Rainbows (Radiohead)
- Mer de Noms (A Perfect Circle)
- A Farewell to Kings (Rush)
- The Slow Rush (Tame Impala)
- Thirteenth Step (A Perfect Circle)
- Writing Like Failure
- Ground Never Settles (Shiner)
- Tragic Boogie (Life and Times)
- Beach House (Modal Grammar)
- Over-Nite Sensation (Zappa)
- True Loves (HFE Debut)
- A Moon Shaped Pool (Radiohead)
- Return of the Dream Canteen
- Seventh Tree (Goldfrapp)
- Dummy (Portishead)
- Teen Dream (Beach House)
- Mare Vitalis (Appleseed Cast)

- Toe Catalog Primer
- Laurel Canyon Vol 1