

Fixing a hole in the scale: suppressed notes in the Beatles' songs

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Abstract

A suppressed note is one that is consistently left out of the collection of pitch classes (different musical notes) in a musical piece and later appears with considerable emphasis. The Beatles frequently use the technique of suppressed notes, due to their tendency to compose pentatonic melodies, which leave 'holes' in the diatonic scale. These holes are usually filled in later in the song, when the pentatonicism is broken. The suppressed note then attracts special attention, both because it is a new note that the melody had previously avoided and because it appears at a peak moment, which is shaped by other parameters as well (e.g. as a melodic peak in a metrically accented position) and is connected to a textual turning point. The paper peeks at the Beatles' repertoire through the keyhole of the suppressed note.

A musical structure of whatever size is frequently evaluated on the basis of its climax and the way the events relate to it, building up the tension before it and releasing the tension after it. This is true of both a long symphony and a short, compact song such as those by the Beatles. Almost any musical parameter may be involved in the planning of, and build-up to, a musical peak event. Some of this involvement may be obvious and clear, like the increases in ambitus (bounding interval) and density (number of notes per unit of time); other aspects are latent and unconscious – unknown perhaps even to the composer – and can be identified only through analytic observation.

I shall focus here on a simple, and sometimes neglected, musical factor: the use of suppressed melodic notes to create musical momentum and take advantage of their late appearance. Presumably, this is not a planned compositional technique but one of the less conscious processes in musical composition (at least in non-serial music). Of course, the diagnosis of a suppressed note is made in the context of the collection of notes relevant to the specific piece of music. When the music is very chromatic, one should look at the full collection of twelve tones and see what was left out. Similarly, with primarily diatonic songs one should investigate the fate of scalar notes that are in no hurry to appear, and the effectiveness of their delayed appearance.

In the present discussion I will concentrate on the Beatles' pentatonic tendencies and the suppressed diatonic notes that result from them. In many of the Beatles' songs, as in other genres of folk and pop music, a pentatonic core is easily identifiable. Nevertheless, strong pentatonicism, in the sense of rigid adherence to the pentatonic raw material, is not common in their work. Often their pentatonicism can be regarded as diatonicism with omissions, and the missing notes appear later in the song. The delayed appearance of this sort of suppressed note provides a refreshing sense of

release, especially when other musical factors are involved in emphasising the event (e.g. a peak in pitch).

When the melody is based on routine blues pentatonicism, the suppressed notes will be $\hat{2}$ and $\hat{6}$; in the case of 'major' pentatonicism the suppressed notes will be $\hat{4}$ and $\hat{7}$.¹ Whichever the case, the scalar notes with a tritonal relationship between them are omitted, softening the scale and weakening the sense of tonality. The appearance of the suppressed note may, then, involve tonal clarification as well. In a few songs there is a hexatonic selection of notes,² with just one scalar note skipped; this note may function as a suppressed note awaiting the right moment to be revealed.³

Suppressed notes are primarily a melodic phenomenon. The belated appearance of a suppressed melodic note may be effective even if it was present in the accompaniment. But often the harmony, too, takes part in the process and helps to delay the appearance of certain notes. In such cases an interesting relationship may emerge between the melody and elements of the harmony.⁴

Like many other properties of the Beatles' repertoire, the suppressed notes and their connection to pentatonic systems form a common thread in all their works, regardless of the composer. We shall follow this thread not chronologically, but by the composer of each song – George Harrison, John Lennon or Paul McCartney.

George Harrison

George Harrison's early song 'Don't Bother Me' (recorded in September 1963) gives us an instructive lesson in the Beatles' pentatonicism (Example 1). The song demonstrates extraordinary pentatonic discipline: in almost the entire song, both the melody and the roots of the chords use only the pentatonic selection of notes from the blues – E, G, A, B, D ($\hat{1}$, $\hat{3}$, $\hat{4}$, $\hat{5}$, $\hat{7}$) – and consistently avoid the other two diatonic notes, F# and C ($\hat{2}$ and $\hat{6}$). These missing notes are heard in the outer voices only toward the end of the song (phrase D in Example 3). The suppressed F# has a very impressive appearance at the peak of the melodic curve, on a strong phase in the hypermeter.

Pentatonic melodies often have a wide ambitus. Because it skips over the suppressed diatonic notes, the melody gallops quickly along the octave. In the opening phrase, the melody rapidly spreads over an ambitus of an octave and remains within it until the salient entrance of the suppressed F#. This first breakout from the octave framework, by means of a new note, constitutes the apex of the song. The deviation from pentatonicism is also manifested in development among the upbeats to the various parts of the song. Whereas the upbeats to phrases A1 and A2 (E–G–A–B) and to C1 and C2 (E–G–B–D) remain within the pentatonic framework, the upbeat to phrase D (G–B–D–F#), which is merely a shift of the previous upbeat, takes us out of the pentatonic system.

Pentatonicism is mainly a melodic phenomenon that puts no restrictions on the harmony. In this song, however, the harmony does not ignore the melodic pentatonicism, as we can see from the names of the chords that appear throughout phrases A, B and C. This is particularly salient in A1: not only do the chord roots create a strongly pentatonic continuum (B–A–G–E), but this continuum is like a central motive in the song (motive b in Example 1, which is the retrograde of motive a!) Until the penultimate chord, all the chord roots are completely pentatonic. Immediately after the melodic breakout to F#, the harmony, too, betrays the pentatonicism with the appearance of the VI on a non-pentatonic note, C. Interestingly, until part D the harmony completely avoided the diatonic note C-natural, since the IV appeared as a

The image shows musical notation for 'Don't Bother Me' in G major. It is divided into several sections: A1, A2, B, C1, C2, D, SN1, and SN2. The notation includes a treble and bass clef with notes and accidentals. Roman numerals are placed below the notes to indicate chord functions. A legend indicates 'SN = Suppressed Note'. A 'regressive cadence' is marked under the final notes of section D.

Example 1. 'Don't Bother Me' (George Harrison) – tonal schema of the outer voices. In parts A, B, and C, a pentatonic set (E, G, A, B, D) prevails in the melody and in the bass. The suppressed diatonic notes appear in part D (F# in the melody and C in the bass).

major chord and the $\hat{6}$ was consequently represented by C#, with a Dorian flavour. The intrusion of melodic pentatonicism into the harmonic domain generates unusual combinations of degrees, manifested in modal progressions, parallel steps, regressive steps, and avoidance of conventional cadential progressions.

The belated appearance of the suppressed notes (F# and C) supports a suppressed textual phrase. Only in phrase D do we finally discover why the speaker is so upset about the girl's departure and wants the person he is addressing to leave him alone: 'Because I know she'll always be/The only girl for me'.

A much later song by Harrison, 'It's All Too Much' (recorded in June 1967), is unusual in that the suppressed note itself is pentatonic. The verse is limited to an original selection of five notes (G–A–B–D–F#), which, in a sense, constitute a tonic septachord that prevails in both the vertical and the horizontal axes (measures 1–4 in Example 2). The F# replaces the missing pentatonic note (E) and essentially delays its appearance until the beginning of the refrain. In the refrain, the melody takes on the standard major pentatonic discipline (G, A, B, D, E), with emphasis on the suppressed E ($\hat{6}$) as the peak note of the refrain (measures 5 and 7 in Example 2).

The image shows musical notation for 'It's All Too Much' in G major. It is divided into a Verse (measures 1-4) and a Refrain (measures 5-8). The notation includes a treble clef with notes and chords. A diagram above the first measure shows a transition from F# to E. A circled note in the refrain is highlighted as a salient melodic peak.

Example 2. 'It's All Too Much' (George Harrison) – tonal schema. An unconventional pentatonic set (G, A, B, D, F#) prevails in the verse. The suppressed notes – E and C – appear in the refrain. The E (circled) appears as a salient melodic peak.

REFRAIN (detail)

Don't Let Me Down Don't Let Me Down

VERSE (detail)

Nobody ever loved me like she does
I II⁷

BRIDGE (detail)

It's a love that last for-e-ver
V⁷

Example 3. 'Don't Let Me Down' (Lennon-McCartney) – two melodic fragments. The refrain and the verse are pentatonic, and the suppressed A (circled) appears as a peak in the bridge.

In this song, too, the harmony supports the melodic development. The entire verse is over a static G chord and therefore the suppressed notes are absent from the accompaniment, too. In the refrain there is harmonic diversification with the suppressed notes (E and C) in the accompaniment. After the extreme parsimony with respect to notes and chords in the course of the verse, the refrain sounds diverse and impossibly rich in notes, as the speaker says: 'It's all too much for me to take'.

John Lennon

Lennon is apparently the most pentatonic Beatle. Let us begin with two examples from his later songs (recorded in early 1969), in which the melodic pentatonicism serves as a foundation for divergence.

In 'Don't Let Me Down' (Example 3), we find a selection of pentatonic notes – E, F#, G#, B, C# (1, 2, 3, 5, 6) – that absolutely dominate the melody in the verse and the refrain; the repeated drops in the pentatonic slope correspond to the fear concealed in the title of the song. The bridge opens with the words 'I'm in love for the first time', promising us a new experience. And indeed, in the third line – 'It's a love that lasts forever' – the A (4) enters the melodic arena as a local peak, with a strong presence, on the key word, 'love'. Just as the melody economises on notes, the harmony economises on chords. In essence, three chords dominate the song: I, II⁷ and V. The V appears throughout the verse and the refrain as a complex chord without the leading tone, D# (7), which is also missing throughout the melody. Interestingly, we find the suppressed harmonic note (D#) appearing adjacent to the suppressed melodic note (A); the two come together only in the middle of the bridge, as part of the first full appearance of the V⁷. The melodic lacuna could not have been sufficiently effective on its own, because the non-pentatonic note, A (which, as stated, is missing from the main melody), appears in the accompaniment (in the II⁷) and in the second voice.

'Dig a Pony' (Example 4) opens with a distinctly pentatonic vocal phrase, E–F#–A–B–C#, derived (as we shall see below) from the mixolydian mode on A. The missing diatonic notes appear later, one after another: first the D (4) and then the G

I hi hi... Well you can penetrate... All I want is you

I — VI — II — bVII⁷-V⁷, bVII-IV—I

Example 4. 'Dig a Pony' (Lennon-McCartney) – three melodic fragments. The divergences from the pentatonic set are circled.

INTRO a b b' OUTRO

Example 5. 'In My Life' (Lennon-McCartney) – voice-leading graph. The melody in part a is dominated by a pentatonic set (A, B, C#, E, F#). Part b emphasises the first suppressed note (D); the second suppressed note (G#) appears only in the intro and the outro as a structural leading note.

($\hat{7}$), both with considerable emphasis (see the circled notes in the Example). The D constitutes a local peak and the G is the peak of the entire song. Both are harmonised as bVII, the degree that produces the mixolydian quality. The melodic breakout from pentatonicism thus involves a harmonic breakout from what is ostensibly an A-major framework, and both conform to the permissive message of the text (see Macdonald 1995, p. 265). The conformity is manifested mainly in the second verse, where the words 'Well you can penetrate any place you go' lead to the appearance of the $\hat{4}$ on the bVII. The absolute statement 'All I want is you' receives full musical support with the impressive appearance of the other suppressed melodic note (G), which completes the scale on the word 'All', and with the hyperplagal progression bVII-IV-I, whose three triads conclude the full selection of notes of the mixolydian mode.⁵

In an earlier, but much more important song, 'In My Life' (recorded in October 1965), the pentatonic melody sung avoids the notes D and G# ($\hat{4}$ and $\hat{7}$ in A major). The pentatonic notes themselves show variability: the $\hat{6}$ is manifested in every phrase, both as F# and as F-natural, and the $\hat{3}$, usually represented by C#, may appear as C-natural.⁶ These flattenings are accompanied by a harmonic mixture, which gives the song its nostalgic flavour.⁷ The song has a repetitive nature and is based on a verse that is repeated with no refrain. The form of the verse is *aabb'*. Phrases *b* and *b'* differ from the repeating phrase *a* only in the beginning (Example 5). The centre of each phrase is at the beginning of the third measure in the hypermetric unit, perhaps due to the charged word 'life' in the opening phrase. Lennon signals its importance to us by means of melisma and mixture. The development from phrase to phrase is not large, but there is a change in the third phrase (*b*), where we hear a flatted VII instead of a minor IV (G \flat rather than D in the bass). Along with the harmonic deviation comes a deviation from pentatonicism. The suppressed melodic note D appears, constituting a local peak on a stressed beat. Thus the centre of gravity of the verse forms within the nostalgic monotonicity.

The other suppressed note, G#, is nowhere to be found in the vocal part, which avoids the dominant and the leading tone. But the G# has a decisive function in the instrumental envelope of the song. If the superstructure of the song is founded on the relationship between the tonic and the dominant (in accordance with Schenkerian principles), there is no escaping the bizarre conclusion that all the verses of the song are merely an interpolation between the intro and the outro (as expressed in square brackets in Example 5). Although the verses do not have persuasive endings, the instrumental coda (the outro) gives the song a clear concluding gesture. In so doing, it resolves the leading tone, G#, which appears at the end of the intros to the verses and is left hanging in the air. As a result, if there is still some tension in the speaker's soul, oscillating between past and present and between memory and reality, the coda relieves it.

Paul McCartney

Whereas many of Lennon's songs have a salient pentatonic element, in McCartney's songs this element is not clear. 'Lady Madonna' (recorded in 1968) is an exception. The melody in the opening section of the song (part A in Example 6) is clearly based on major pentatonicism (A–B–C#–E–F#, in A major); only in the cadence do two blue notes – C-natural and G-natural – infiltrate the melodic system.⁸ The G-natural is the first breakout from the pentatonic set. Thus there remains one suppressed diatonic note: D (4̇). Whereas the D is a suppressed note in the real melody, it has a strong presence in the accompaniment and functions as an implied structural neighbouring note in the upper line. Only at the beginning of the second section of the song does the suppressed note break through into the melodic arena vigorously and without delay (part B in Example 6).

Interestingly, the melody in the second section is also limited to a pentatonic selection of notes: A–G–E–D–C, in A minor (the one exception, B, appears only in the cadence this time, too). The full selection of notes in the song may be regarded as being derived from a combination of major and minor pentatonicism, ultimately resulting in full diatonicism:⁹

$$A-B-C\#-E-F\# + A-C-D-E-G \rightarrow A-B-C/C\#-D-E-F\#-G$$

Traditionally, major pentatonicism is associated with nature songs. According to Deryck Cooke, in Wagner's *Ring*, pentatonicism is common in the leitmotifs representing natural forces or natural creatures.¹⁰ Later, pentatonicism became associated with depictions of nature in impressionistic music. Although it is questionable whether McCartney was familiar with Wagner and Debussy, two of his nature songs contain major 'pentatonic islands' in which the generally pantheistic text describes nature's child: 'Fool on the Hill', with the lyrics 'But nobody wants to know him / They can see that he's just a fool'; and 'Mother Nature's Son', with the lyrics 'All day long I'm sitting singing songs for everyone'. Because these songs are not pentatonic at the beginning, the pentatonic line draws special attention. Both examples are in the key of D major. Of the two, the second is more relevant to the present discussion. It brings together two pentatonic systems – E–F#–A–B–C# (see penta-1 in Example 7a) and E–F#–A–B–D (see penta-2 in Example 7a) – to produce a collection of hexatonic notes (D–E–F#–A–B–C#). The suppressed diatonic note is therefore G (4̇ in D major). This note appears in the next phrase as a salient peak, as part of plagal motion (circled in Examples 7a and 7b).

The image displays two musical staves, A and B, for the song 'Lady Madonna'. Staff A is labeled 'pentatonic set: A, B, C#, E, F#' and includes a bracketed section with the annotation 'the missing D'. Staff B is labeled 'pentatonic set: A, C, D, E, G' and includes a bracketed section with the annotation 'DC.'. Both staves show a melody line and a bass line with various musical notations such as notes, rests, and bar lines.

Example 6. 'Lady Madonna' (Lennon-McCartney) – voice-leading graph. Example 6a shows section A in detail, and example 6b shows section B in detail. The melody contains two complementary pentatonic sets (A, B, C#, E, F# in part A, and A, C, D, E, G in part B). The divergences from each set occur at cadences.

Ian Macdonald is not enamoured of 'The Night Before' (recorded in February 1965), which he considers nothing more than an ordinary pop song. Aside from the weakness of the text, Macdonald adds, 'Nothing surprising happens in the harmony' (Macdonald 1995, p. 117). Although the harmony by itself and the text by itself may be disappointing (especially due to the song's position on the album, immediately after Lennon's amazing 'Help'), the combination of these two components is by no means trivial. The first two harmonic progressions in the song are based on pentatonic roots: In the intro the chord combination D–F–G–A (I–III–IV–V) prevails. The verse-refrain begins with the chord combination D–C–G–A. The collection of chord roots obtained so far is thus C, A, G, F, D, i.e. a whole pentatonic blues scale in which the missing roots are B (VI) and E (II). The VI appears for the first time on the words 'Now today'. The appearance of the suppressed root at this point serves the contrast between 'the night before', when the other person's love seems a sure thing to the speaker, and 'today', when the speaker detects a change for the worse in her attitude toward him.¹¹ The speaker's present depressed mood is evident throughout the verse-refrain, but it differs in the two parts of the verse-refrain: in the first half he recounts the sweet memory of the night before in bitter blues fashion, whereas in the second half he complains about the estrangement of 'today' by means of a mixture in the minor subdominant. At the end of the verse-refrain, in the request 'Treat me like you did the night before', the blues sound returns, along with the roots derived from the opening pentatonic framework (the intro now serves as a lead-in).

As in Harrison's 'Don't Bother Me', there is a motivic relationship between the harmony and the melody. The verse begins with the notes D–F–G, corresponding to

Example 7a. 'Mother Nature's Son' (Lennon-McCartney) – voice-leading graph. Two pentatonic sets (penta-1 and penta-2) join together in the melody to form a hexatonic set. The suppressed note (G) appears belatedly as a peak (circled).

Example 7b. Synopsis of 7a.

Example 7a. 'Mother Nature's Son' (Lennon-McCartney) – voice-leading graph. Two pentatonic sets (penta-1 and penta-2) join together in the melody to form a hexatonic set. The suppressed note (G) appears belatedly as a peak (circled).

Example 7b. Synopsis of 7a.

Example 8. 'The Night Before' (Lennon-McCartney) – voice-leading graph. The pentatonic set appears in the bass (D, F, G, A, C), as does the suppressed note (the circled B).

Example 8. 'The Night Before' (Lennon-McCartney) – voice-leading graph. The pentatonic set appears in the bass (D, F, G, A, C), as does the suppressed note (the circled B).

the chord roots of the intro (motive x in Example 8). In the second half of the bridge, the two pentatonic gaps are filled with the appearance of the chords Bm and E, as part of tonicisation of the V degree (see the circled notes in Example 8).¹²

suppressed note

17 etc.

Tell me what you see

Example 9. 'Tell Me What You See' (Lennon-McCartney) – tonal schema. The F in measures 17–19 is the suppressed scalar note, which is not part of the hexatonic set that prevails in measures 1–16.

In 'Tell Me What You See' (recorded in February 1965), the singing consistently avoids the leading tone (F# in G major) and makes use of melodic fragments that tend in part toward pentatonicism (e.g. A–G–E–C–D in measures 9–10 in Example 9). The avoidance continues until the end of the musical-textual rotation, when the missing note appears in the upper voice in full glory, but flatted – as F-natural (measures 17–19). The note stands out for many reasons: because it is a suppressed note, because it diverges from the song's pure diatonicism (pure except for a trace of a blues tendency), because it is a peak note, because it is a recitation note, because it appears in an exceptional chord, and because it is the title phrase of the song – 'Tell me what you see'. Furthermore, it plays a decisive role in the intensification of the subdominant in the song. This process reaches its peak in measure 19, with the impressive appearance of the IV after the V9/IV.

A similar case of a hexatonic melody in which the suppressed diatonic note appears belatedly can be found in 'And I Love Her' (recorded in February 1964). The song oscillates throughout between E major and C# minor (Wagner 2000), while the melody is limited to E, F#, G#, A, C# and D#. The missing B (which could be either $\hat{5}$ in E major or $\hat{7}$ in C# minor) is absent from the verse – both from the melody and from the notes of the chords – until the cadential refrain 'And I love her'. It is conspicuous here at the first appearance of the dominant of E major; from a melodic standpoint, however, it does not attract attention because it is merely a neighbouring note. The melodic compensation for the absence of the B comes in the bridge, which is built entirely around the suppressed note. Its appearances are pertinent because they are situated on salient metric phases and on significant words (see Example 10).

The image displays two musical staves for piano accompaniment. The top staff is for the 'VERSE-REFRAIN' section, which is enclosed in a box labeled 'Hexatonic Zone'. The melody in the treble clef includes a circled B note. Below the staff, Roman numerals VI, IV, V, and I are indicated. The bottom staff is for the 'BRIDGE' section, enclosed in a box labeled 'The missing B'. The melody in the treble clef includes a circled B note. Below the staff, Roman numerals I, III, and V are indicated. The key signature is three sharps (F#, C#, G#).

Example 10. 'And I Love Her' (Lennon-McCartney) – voice-leading graph. The bridge emphasises the suppressed note (the circled B) that is missing from the hexatonic area.

The most amazing case of a suppressed note that belatedly enters the melodic arena and helps to build up to an effective peak occurs in 'Fixing a Hole' (recorded in February 1967). A second tetrachord in the Dorian mode on F (C–D–E \flat –F), together with a pentatonic scale (F–A \flat –B \flat –C–E \flat), produce a hexatonic chord (F–A \flat –B \flat –C–D–E \flat) that constitutes the total melodic raw material for the first part of the song (Example 11). The result is a nice Dorian scale, but an incomplete one – the second scale degree (G) is missing. In other words, we have a hole in the scale, but we also have the speaker's explicit promise that he plans to fix it.

At the beginning of the second part, the song shows no intention of fixing the crack and the promise remains unfulfilled. Instead, the ascending melodic line covers the full original hexachord (A \flat –B \flat –C–D–E–F), with E-natural replacing E-flat. The Dorian now turns into a sort of melodic minor, with emphasis on the major tetrachord within it: C–D–E–F. Suddenly, in the second half of this part, we are assailed by a hail of Gs; the anticipated suppressed $\hat{2}$ appears as a furious, climactic recitation note accompanied by maximum density of syllables and an unrestrained outburst by the speaker. This note plugs the melodic hole and shuts out the people who are trying to get in ('See the people standing there who disagree and never win / And wonder why they don't get in my door').

Lennon–McCartney

The song 'A Day in the Life' (recorded in January 1967) is actually a combination of two songs, one by Lennon and the other by McCartney (see Moore 1997, p. 52).

The image displays three systems of musical notation for the song 'Fixing a Hole'. Each system consists of a treble clef staff and a bass clef staff. The first system is marked with a Roman numeral 'I' below the bass staff. The second system is marked with a Roman numeral 'V' below the bass staff and includes the text 'fixing the hole in the scale' above the treble staff, with a circled note in the melody. The third system is marked with a Roman numeral 'i' below the bass staff. The notation includes various musical symbols such as notes, rests, beams, and slurs, along with Roman numerals and a circled note indicating a specific melodic feature.

Example 11. 'Fixing a Hole' (Lennon-McCartney) – voice-leading graph. The suppressed note (G) comes in as a structural note when the structural dominant appears.

Lennon's opening section contains a 'hole' (part A3 in Example 12): the melody is definitely hexatonic (E, D, C, B, A, G, E, with no F \sharp), but it is hard to tell whether it is in G major or E minor without a leading note (F \sharp or D \sharp) supporting one of these two possibilities and without a distinct dominant that could decide the issue. The bass supports the idea that it is in G major. It does not avoid the suppressed note and it presents a full, descending diatonic scale (measures 1–5). In contrast, the melodic structure supports the E minor interpretation, in view of the emphasis on B, E and G as the skeletal notes (see Moore 1997, p. 54, ex. 4.14).

The suppressed diatonic note in the melody is F \sharp ($\hat{2}$ in E minor or $\hat{7}$ in G major). The note appears only in McCartney's section of the song, which is played in E major. Even in this section, the melodic appearance of the F \sharp is delayed until it eventually comes as a cadential note in the double semi-cadence of each verse (see the circled note in part B). The unconscious awareness of the delay is expressed in the words 'I noticed I was late'. That same suppressed note is salient in the peak of

the E minor structure of the upper voice

A 3

the G major structure of the lower voice

G major yet

bVII or bII ?

G major or E minor?

definitely E minor

F# is suppressed in the upper voice

B

C

SN

Example 12. 'A Day in the Life' (Lennon–McCartney) – tonal schema of the outer voices. The hexatonic set appears in E minor and E major before the delayed appearance of the suppressed diatonic note F# (circled).

the retransition curve, which takes us from McCartney back to Lennon (see the third measure in part C).

Conclusion

An analysis based on the principle of suppressed notes starts out by identifying the missing notes. This sets it apart from conventional analyses, which focus on the notes that are there and on their ramifications. The fact that the notes missing from much of the song exist in the note system on which the song is based is what gives them potential existence that can be realised in the future. As listeners, we are not supposed to notice the absence of the suppressed notes consciously, but the powerful effect that they have when they appear attests retroactively to the absence that built up while we were listening. When pentatonic music exists within a pentatonic note system, and especially when it is performed with a pentatonic system of instruments (e.g. an Indonesian gamelan orchestra), no absence of notes develops during listening. But when pentatonic or hexatonic music exists within a diatonic-chromatic system, an absence may develop.

Suppressed notes are a specific case of the general phenomenon known as 'filling in'. Generally, however, filling in is done with passing tones that do not attract the listener's attention. Two features make the suppressed notes different from filling-in phenomena in general. The first is their delayed appearance, since note gaps may open and then be filled in immediately (e.g. an ascending skip that is filled in by means of descending scalar motion). The second feature is the accentuation of the suppressed note by means of other parameters: stressed metric positioning, persistent

repetition of the suppressed note, the appearance of a keyword in the text, and especially a peak in pitch all make the introduction of the suppressed note a peak event in the musical development.

Epilogue

In the film *Yellow Submarine*, the Beatles encounter the Sea of Holes, which gives them a variety of Escherian experiences. Ringo takes one of the holes, folds it up, and puts it in his pocket as a souvenir, saying, 'I've got a hole in my pocket'. As we have seen, their repertoire is also analogous to a sea of holes (or, more precisely, a sea of diatonic holes), and we were able to dive in and take a few holes as souvenirs. Many others, however, remain untouched or undiscovered. Therefore, we cannot yet boast, 'Now we know how many holes it takes to fill the Albert Hall'.¹³

Endnotes

1. The symbol \wedge denotes the place of the note in the scale: $\hat{3}$ represents E in the key of C major, F \sharp in D major, and so on.
2. The term *hexatonic* is used here only in the sense of a selection of six pitch classes from the diatonic scale. Sometimes it may be regarded as an expansion of the pentatonic scale.
3. On the pentatonic core in the Beatles' songs, see Everett (1999, p. 18); for more detail, see Everett (2001, pp. 56–8).
4. We do not discuss suppressed chords much here. This subject is addressed in the discussion of blues elements in the Beatles' music (Wagner 2003). When the opening section of a particular song is based on primary blues chords (i.e. I, IV and V), the secondary chords (II, III and VI) may be regarded as suppressed chords. They usually come into play later in the song. Presumably, suppressed chords are used more consciously and more deliberately than suppressed notes.
5. The term *hyperplagal* comes from the interpretation of \flat VII as IV of IV.
6. The C-natural appears on the word 'my' in the concluding phrase of the verse ('In my life I've loved them all'). Because the C-natural functions as an *appoggiatura*, it does not appear in Example 7, which focuses on the skeletal notes.
7. The mixture, in this case, forms when A minor notes break into the A major phrase. These notes, with their sorrowful connotation, give the phrase an atmosphere suited to the nostalgic text.
8. The G-natural appears in the melody only in the second cadence of the opening section, on the word 'heaven'.
9. Sometimes McCartney uses a tighter combination of pentatonic systems. One example is the beginning of 'Lovely Rita'.
10. For example, the 'Song of the Rhine Maidens' in *Das Rheingold* and the bird motive in Siegfried (Cooke 1969, Examples 22–4, in the booklet accompanying the recording). And while we are on the subject of 'pentatonic birds', note that Paul McCartney's 'Blackbird' includes a pentatonic enclave with the words, 'You were only waiting for this moment to arise'.
11. A similar textual contrast expressed by other musical means is found on the same album in 'Yesterday'.
12. Interestingly, the harmonic sequence shown in the bass line in the figure above (A–D–G, B–E–A) is not accompanied by a melodic sequence.
13. From 'A Day in the Life'.

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