

# GRATEFUL DEAD STUDIES

---

Volume 4

2019/2020

---

ISSN 2572-7818 (Online)

ISSN 2572-7702 (Print)

---

Daley, Mike

## Listening to “Space”

---

### CITATION INFORMATION

Mike Daley

Listening to “Space”

**Grateful Dead Studies**

Volume 4 (2019/2020)

Pages: 40–59

URL: [http://gratefuldeadstudies.org/wp-content/uploads/2020/06/GDSv4\\_Daley.pdf](http://gratefuldeadstudies.org/wp-content/uploads/2020/06/GDSv4_Daley.pdf)

---

### LICENSE

Download of this Grateful Dead Studies Licensed Content (hereafter Content) constitutes acceptance of the following terms and conditions: Provided they abide by the restrictions below, users may search, view, reproduce, display, download, print, perform, and distribute Content for the following Permitted Uses: research activities; classroom or organizational instruction and related classroom or organizational activities; student assignments; as part of a scholarly, cultural, educational or organizational presentation or workshop, if such use conforms to the customary and usual practice in the field; authors or other Content creators may at their discretion incorporate their Content into unrestricted databases or websites with prior written permission from Grateful Dead Studies.

The portions of Content that have been downloaded or printed out by a User may continue to be used in compliance with these Terms and Conditions even if such license should later terminate or expire.

Users may not: use or authorize the use of the Grateful Dead Studies Licensed Content for commercial purposes or gains, including charging a fee-for-service; undertake any activity such as the use of computer programs that automatically download or export Content, commonly known as web robots, spiders, crawlers, wanderers or accelerators that may interfere with, disrupt or otherwise burden the Grateful Dead Studies server(s) or any third-party server(s) being used or accessed in connection with Grateful Dead Studies; or undertake coordinated or systematic activity between or among two or more individuals and/or entities that, in the aggregate, constitutes downloading and/or distributing a significant portion of the Content; or make any use, display, performance, reproduction, or distribution that exceeds or violates these Terms and Conditions of Use.

Additionally, users may not: modify, obscure, or remove any copyright notice or other attribution included in the Content; incorporate Content into an unrestricted database or website; systematically print out or download Content to stock or replace print holdings; download or print, or attempt to download or print, an entire issue; reproduce or distribute Content in bulk, such as the inclusion of Content in course packs, electronic reserves, repositories, or organizational intranets.

Grateful Dead Studies encourages the use of links to facilitate access to the Content.

## Listening to “Space”

MIKE DALEY

Of the hundreds of songs the Grateful Dead performed, one stands out as not only their most experimental and ambitious, but also the one that perhaps best captures the elusive heart of their project. Even more interestingly, it was the one that they played most often (though that fact can be disputed). Indeed, some critics argue that it is not a song at all—which makes its place within the band’s canon even more intriguing. Most commonly called “Space,” the song was a freeform musical and sonic expedition whose contours and musical nature varied substantially, even wildly, from performance to performance, and for many fans and commentators, it represented the essence of the Grateful Dead’s uniqueness as a popular music ensemble.

Yet “Space” has been largely ignored in the growing literature on the band. This essay represents a first attempt to fill that lacuna by providing a close analysis of one performance of “Space,” examining its opening as a way of articulating the power and significance of the band’s overall approach to performance and improvisation.

Of the 2,318 known Grateful Dead concerts, the DeadLists Project identifies 1,262 that included “Space.”<sup>1</sup> This figure represents over half of the Dead’s performing career, from the first appearance of “Space” on January 20, 1968, and its sporadic appearance afterwards until it became a more or less regular part of concerts in early 1978. Another fifty-three shows, from August 14, 1967, at the O’Keefe Center in Toronto to March 18, 1971, at the Fox Theatre in St. Louis, contain the section known as “Feedback,” which can be seen as an antecedent to “Space” (O’Donnell 2011, 1).

While “Space” and “Feedback” are ubiquitous in the recorded legacy of the Dead, the specific practices of improvisation within “Space” and “Feedback” have received scant mention, with the notable exception of Shaugn O’Donnell, who has undertaken some of the most detailed work on “Space” (1999; 2011). However, while O’Donnell nimbly contextualizes “Space” and its function within a performance, he does not explicate the sonic specifics of the piece. Likewise, David Malvinni’s book-length analysis of the Grateful Dead’s live improvisations (2013) also largely overlooks “Space” in favor of “Dark Star,” which receives far more attention as a model for what Graeme Boone has called “the Dead’s protean approach to music making” (Boone 2010, 172; see also Boone 1997; 2014).

Because of its particular nature as a practice not rooted in pre-planned structures, key centers, or recurring rhythmic patterns, “Space” is a window into Grateful Dead improvisational dynamics laid bare. The persistent practice of “Space” by the Dead was, I would argue, a musical model of what Victor Turner called *communitas*. “Space,” over time, became reified as a recurring practice of free improvisation in a Dead show. This practice was one that the Dead assiduously maintained, and it was this creation and maintenance of a model of *communitas* through free improvisation that made the Grateful Dead unique among rock bands of their era. What we can learn from the improvisational processes in “Space” speaks directly to the larger cultural movement that the Dead represent.

As a way to recognize and describe the dynamic processes of improvisation, this essay provides a musical transcription and detailed

sonic description of Jerry Garcia and Phil Lesh's work in the first minute of a 1976 performance of "Space." This representation offers a preliminary inventory of sonic techniques used in "Space" improvisation, as well as an analysis of what Brent Wood calls "the whirling dialectic" of Jerry Garcia and Phil Lesh in this performance (2010, 47).

### Defining "Space"

In *Skeleton Key*, the Deadhead dictionary, Shenk and Silverman define "Space" as "the freeform musical conversation by the guitarists and keyboardist that follows the 'Drums'" (1994, 266), while David Malvinni defines "Space" as "free improvisation, without reference to a song or harmonic progression and defined meter" (2013, 13). Malvinni, then, defines "Space" by what it is not: in his view, "Space" is not the playing of a song—that is, a previously planned and learned text of notes, chords, rhythms and words. Elsewhere, Malvinni calls "Space" "a rhythmically free region relying on electronic effects both within sections of pieces like 'Dark Star' and as the middle point of the second set after Drums" (2013, 107), and "the location for rhythmic free form ... rigidly separated" from the other songs after 1975 (2013, 139). At this point, "Space" became "a reflex ... predictable" (2013, 139).

Malvinni goes on to suggest that "a case could be made that the purpose of 'Space' is oftentimes to offset the mechanical marching of the flow of songs at a later Dead show" (2013, 169), noting that "there may be a more practical reason at work behind 'Space': as a chance to give the drummers a rest before the finale of songs coming out of 'Space'" (197n.). O'Donnell more poetically calls "Space" "a realization of a specific temporal path through this primordial web of all possible music" (2011, 134). As O'Donnell writes, "In the Dead's universes, 'anything can, and does, happen at any time,' but the journeys through the nether regions we've designated as 'Space' may be where that veil of illusion grows thinnest" (2011, 8). For the purposes of this essay, a useful definition of "Space" is any time in the band's performance during which song structure is no longer apparent, and that is characterized by a fluidity of tonality, meter, and tempo.

## Influences

For “Space,” the Dead drew upon a variety of sources and influences. Lesh had a strong interest in the music and ideas of Karlheinz Stockhausen, especially the manipulated voices and electronic sounds of his 1960 composition *Kontakte*. Malvinni calls *Kontakte* “clearly ... the sonic godfather of the Dead’s concept of ‘Space’” (2013, 139). The Dead were also influenced by John Coltrane, Ornette Coleman, and other jazz modernists of the 1960s (Jackson and Gans 2015, 18). Bob Bralove worked with the band from 1985 to 1995, outfitting them with MIDI instruments and sometimes performing with them during “Space” and “Drums.” For Bralove, their work together made sense, musically: “It was clear that we shared a great deal of listening experiences, from the twentieth century ‘classical’ composers to the free jazz of the 60s and 70s. I could have a conversation with Phil about Elliott Carter’s metric modulations, or ask Jerry to explain what he was doing with Ornette Coleman’s harmolodic improvisations” (Bralove 2014a). In fact, in a joint interview with Lesh and Elliott Carter by Sarah Cahill (2008), Lesh told Carter that “where we’ll have different music simultaneously going on together ... that’s something that I picked up from your music.”

The Grateful Dead had connections to a wide variety of experimental artistic practices in the milieu of 1960s and ’70s northern California. Lesh studied modern composition at UC Berkeley and Mills College and presented, with Tom Constanten at the “Music Now” concerts hosted by the San Francisco Mime Troupe in 1964 (Jackson and Gans 2015, 89). The Tape Music Center, a cooperative experimental recording studio and performance space founded by Morton Subotnick and Ramon Sender, was a place where Luciano Berio, LaMonte Young and other avant-garde musicians rubbed shoulders with the Dead; it was a venue where, in choreographer and scene participant Anna Halprin’s words, “What was popular art, what was fine art, what was experimental art all got kind of moved together” (Arcangel 2008, 113).

What the Grateful Dead explored during “Space” has some parallels with some of the more experimental work of 1960s contemporaries like the Velvet Underground and Pink Floyd, as well as more obscure groups

like Fifty Foot Hose and the Afterglow. These groups differed from the Dead in that their explorations were more focused in terms of timbre and in the use of noise, drones, and extreme dissonance. While the Dead did not shy away from such experimentation, especially in the “Feedback” sections of concerts from late 1967 through 1971, the atonal jamming characteristics of “Space,” with its melodic invention and spontaneous counterpoint, established a concert tradition of instant, in-the-moment composition unparalleled in rock music.

### **Dialectic of Order and Chaos**

In general terms, the main process at play in this performance of “Space” is the complex dialectic of the instruments defined by the poles of synchronization and chaotic disorganization. That expanse is wide: even if we limit our inquiry, as in the present study, to two instruments only, there is much at play. Any musical parameter—rhythmic, harmonic, tonal, melodic, textural, timbral—can move between order and chaos in the “Space” jam.

This transformational quality is always at play in “Space.” The coming-together tends to happen one parameter at a time. During the piece, the Dead move from non-metered, non-tonal jamming to non-metered but somewhat tonal jamming to metered, tonal jamming. Falling apart tends to happen more suddenly, with all parameters collapsing out of synchronization together. Though synchronization is accepted if it spontaneously occurs, it is not sought after, and it is usually destroyed in short order. It is possible that change may be signalled by any member, though at first glance Garcia and Lesh are usually the prime movers in “Space.” Even so, any member may temporarily step to the forefront in terms of loudness or density of notes. In “Space,” it is critical that the members of the band listen to each other intently, and remain ready to respond quickly to each others’ cues.

To Malvinni, the group’s freeform jams were “complicated group interactions that could seem preplanned but were more likely the result of multisensory—visual, sonic, tactile—cues that the players had developed intraband and in relation to their own instruments” (2013, 124). Quoting Paul Berliner’s seminal work *Thinking In Jazz*, Jim Tuedio describes this

condition as that of “telepathic receptivity,” a state of flexible interaction, creating, modifying, or abandoning ideas on the fly. In his view, these “musical journeys of mutual support and personal expression” produce “euphoric states” (2010, 8–9).

“Space” is also exemplary of a certain powerful thread in the Grateful Dead’s music, a taste for the unexpected and a desire to challenge the audience. Walter Everett’s essay on the harmonic logic of “High Time” (from the band’s 1970 album *Workingman’s Dead*) describes the Dead’s affront to “directed harmony” in that song’s verse using ambiguous, unresolved chromatic chords, with the chorus in more familiar territory. The Dead, already well established by 1970 (albeit with a niche audience), built unpredictability into their songwriting as well as in their live jamming, both freeform and structured alike.

### **Garcia, Lesh, and Tonality**

An essential quality of “Space” is long sections of atonal improvisation. In those passages, a “key” or tonality is not immediately detectable. During other times, the band seems to move spontaneously into tonal jamming, where a root note and mode—major or minor—is more or less agreed upon. This may or may not be joined by a sense of strong and predictable meter. The observations here about Garcia’s and Lesh’s respective approaches are specific to the example under discussion, and should not be construed as stereotypical of Garcia or Lesh beyond that unique performance. They are, however, revealing—and in important ways.

Garcia tends, even in non-tonal sections, to play from internally cohesive scales and modes, even if the keys of those scales are unrelated to the keys being played by the other instruments. In this “Space” alone, I have noted Garcia’s use of Dorian, Phrygian, Aeolian, and Mixolydian modes, minor scales with both raised and lowered sevenths, and the exotic-sounding whole-tone scale. Garcia’s improvisations reveal a tendency to repeat and develop small melodic cells or motives. These motives are shifted, or sequenced, up or down within the scale of the moment, or are repeated more or less verbatim in terms of pitches but with changing rhythmic profiles. Often in his single-string playing he will sequence a smaller melodic motive in such a way that suggests other symmetrical

scales, like the diminished scale. As in much of his more conventional (“hierarchical”) improvisations, the chromatic scale is always close at hand.

Lesh takes on the role of both the creator and destroyer of unified meter and key feeling. He is just as likely in this excerpt to introduce a smooth bass groove on a single note as he is to interject with a disruptive dissonance. He also is apt to make small rhythmic changes within a groove, so as to expand or contract the length of the idea, and to introduce more or less rhythmic density. Like Garcia, Lesh develops musical motives often by lengthening them or shortening them without changing the pitch sequence. Lesh, however, is less likely than Garcia to draw from complete scales, instead working around small melodic motives and scale fragments. Often Lesh seems to establish a note as central for a time, working around it with chromatic approach tones or an alternation with the note a perfect fifth away, such as D and A.

Graeme Boone characterizes Lesh’s role in “Dark Star” jams as demonstrating a “strong tendency to melodic and rhythmic exploration that often results in an independent lead, or counterpoint to Garcia” (1997, 176). This contrapuntal quality is one of the most identifiable characteristics of the Dead’s jamming style. The remarkable ability of the Dead to create interweaving, always changing textures is unparalleled in rock improvisation. The 1976 “Space” performance discussed here is a stunning example of this kind of interaction within a largely non-tonal framework.

### **Rhythmic Play**

It is common practice for popular music to conform to a single, unchanging meter. A rhythmic hierarchy may be imagined with undifferentiated pulses—recurring beats, not necessarily grouped into measures—at the base, metrical groupings one level higher, and phrase rhythms above that. This is the case in most of the Dead’s conventional compositions. But one of the essential qualities of “Space” is the obscuring of a predictable sense of meter within each player’s improvisations. This is achieved by each member of the band choosing their own meter without necessarily attempting to synchronize with the meter being played by the other mem-



bers of the group. Rather than being a top-down structural underpinning of the “song,” meter in “Space” follows the ever-changing phrase lengths being played. Discussing his innate sense of the beat, Garcia explained:

In the Grateful Dead, there’s a certain philosophy about that. Rhythmically, our policy is that the one is where you think it is. It’s kind of a Zen concept, but it works really well for us. It makes it possible to get into a phrase where I can change into little phrase spurts, spitting out little groups of notes that are attached fives—five in the space of four, or five in the space of two, is more common for me—then turn that into a new pulse, where those fives become like a sixteenth-note pulse. Then I’m inside of a whole irregularly rotating tempo in relation to what the rest of the band is playing, when they’re playing, say the original common time. It produces this ambiguity, but all I have to do is make a statement that says, “end of paragraph, and one,” and they all know where it is. (Gans 2002, 67)

### **Listening to “Space,” October 10, 1976**

What I wish to explore can be heard in the first minute of a performance of “Space” from a Grateful Dead concert at Oakland Coliseum on October 10, 1976 (ex. 1), a performance released as *Dick’s Picks 33* (Grateful Dead 2004). This “Space” comes out of a jam following “The Wheel,” transitioning into a drum solo that sets up the next song, “The Other One.” Given that “Space” was not yet a consistent part of Dead set lists, calling this passage “Space” could be challenged as retrospective terminology. Perhaps more properly, it is what Robert Freeman calls a “passage point” between songs that includes a drum solo (2000, 89). Its proximity to the drum solo makes it further suggestive of “Space,” as it was later codified. But this example also has an unusual element in that the drummers are also present and playing. Aside from the advantage that this marks an example of “Space” with full band participation, the presence of a steady pulse gives the other members an agreed-upon constant that they may join with or diverge from at will. I have represented this time constant as a 2/4 meter.

The examples and description deal with the interaction between the lead guitar (Garcia) and bass (Lesh). While the contributions of the

**Example 1.** "Space," October 10, 1976, Part 1

The musical score is divided into four sections, each with a specific starting measure number:

- Section A:** Starts at measure 2. The Electric Guitar part features a complex, repetitive rhythmic pattern of eighth notes with triplets. The Bass Guitar part consists of a simple, steady eighth-note bass line.
- Section B:** Starts at measure 8. The Electric Guitar part has a more melodic, sparse line with some rests. The Bass Guitar part continues with a steady eighth-note line, featuring some longer note values.
- Section C:** Starts at measure 14. The Electric Guitar part has a more active, melodic line with triplets. The Bass Guitar part continues with a steady eighth-note line, also featuring triplets.
- Section D:** Starts at measure 21. The Electric Guitar part has a melodic line with some chromatic movement. The Bass Guitar part continues with a steady eighth-note line, featuring triplets.

"Space," by Jerry Garcia, Phil Lesh, Bob Weir, © Ice Nine Publishing Co., Inc., adm. by Universal Music Corp. Transcription by author. Note: This is the official credit for the song, as copyrighted, but the performance includes the two drummers as well.

other musicians are important to the overall performance, Bob Weir (rhythm guitar) and Keith Godchaux (keyboard) play sparingly and rather repetitively in this excerpt, while the drummers conform to a duple meter accompaniment with some tom fills and cymbal washes. Looking specif-

ically at the dialectic of Garcia and Lesh allows us to focus on motivic development, scale materials, tonality, and the rhythmic profile of each musical line. The goal is to describe musical inventions at the level of the phrase, and to reconstruct communicative dynamics revealed by in-the-moment musical choices. Common practice notation is used to represent the sounds, with the disclaimer that standard notation, while highly effective for representing many types of musical practice, is obviously flawed when called upon to represent oral or improvised practices. The examples use the actual pitches of the notes, unlike standard guitar or bass notation, which is transposed one octave up (e.g., the first E notes played by Garcia can be found at the twelfth fret of the high E string).

#### **Section A (0:00 to 0:07)**

In this first section, Garcia tremolo picks a high E note, gradually bending the string until it reaches a pitch between F and F $\sharp$  (bars 2–5). He then slowly releases the bend, picking the string more sporadically (bars 6–8). By tremolo picking and then microtonally bending the note in this gesture, Garcia cuts across the rhythmic profile that has been established by the drummers while suggesting a use of pitch that moves beyond the expected tonalities. At the same time, he is providing sonic density but little pitch information, so this can be seen as a rather noncommittal gesture.

Lesh plays a recurring two-beat octave figure on C (bars 2–7). Lesh appears to play his high C on beat one, a conclusion drawn from listening to the jam a few seconds before the beginning of this excerpt. Lesh's line has a large degree of regularity but, like Garcia's tremolo picking, little pitch information. If one hears this C as a root note, then Garcia's bent tremolo picking could be heard as a major third (E) being slowly suspended to a fourth and then a microtonally flat version of the sharp fourth or tritone.

This section is a relatively orderly one in comparison to what is shortly to come. Both Garcia and Lesh rely on simple ideas that are more or less synchronized in terms of tonality, meter, and tempo. This will lead into a process by which Lesh temporarily takes the lead in offering the group an idea to move forward.

**Section B (0:07 to 0:11)**

After a brief two-beat hang on C, Lesh initiates a new octave idea one whole step up, in D (bar 9). In a leisurely way, he establishes D as a tonal center, though other than a quick C# neighboring tone (bar 13), he does not supply the notes that would be necessary to determine the mode—major, minor, or one of the church modes used by the Dead in modal jams, chiefly Dorian (e.g. “Uncle John’s Band” jams), Phrygian (“Spanish” jams) and Mixolydian (“Dark Star” jams). With a clear tonality but vague modality, Lesh is providing a wide palette around the note D. Garcia, in the meantime, has dropped out, as if to wait, listen, and think. Lesh’s tonal initiative would seem to be accepted by Garcia at this point, who will join in with a D minor idea that is nonetheless rhythmically differentiated from Lesh’s playing.

**Section C (0:11 to 0:17)**

Garcia initiates an F triad idea moving upward (bar 14), and then, while descending, fills in the space between the C and A with chromatic notes (bars 15–16). He replays the second half of this idea slightly faster in a quarter-note triplet, then with a variety of rhythms while varying the final notes of each note grouping (bars 17–20). As Garcia completes his quarter-note triplet (bar 17), Lesh seems to respond to Garcia’s rhythmic approach with a loosely matching triplet figure on repeated Ds (bars 17–20). He is still vaguely framing a D tonality, though Garcia’s line implies a D minor mode like the Aeolian or Dorian.

With the D minor tonality now established, Garcia will introduce a modal variation that, while retaining the D root, will flatten the second degree, moving the proceedings towards a D Phrygian modality.

**Section D (0:18 to 0:28)**

Garcia reduces his three-note motif to an oscillating semitone figure on E $\flat$  and D. With Lesh establishing D as a root note, the repeated playing by Garcia of an E $\flat$  suggests the mode of D Phrygian. This figure is repeated as a faster three-beat figure comprising a quarter note and an eighth note, played against the 2/4 meter established by the drums (bars 21–23). Even considering the rhythmic displacement of three-against-four

established by Garcia, the relative regularity of the figure seems to suggest a merging of Garcia's and Lesh's lines into a matched meter and, in fact, Lesh responds almost immediately to the suggestion with a repeated D note.

Garcia then resolves the rhythmic tension by adding a fourth note to his three-note figure, allowing him to play the highest note, E $\flat$ , on beat one for multiple measures (bars 24–29). This is suggestive of Garcia's remark, above: "all I have to do is make a statement that says, 'end of paragraph, and one,' and they all know where it is" (Gans 2002, 67). Against Garcia's suggestion of on-the-beat rhythmic synchronization, Lesh has now switched to a distinctive pattern of repeated Ds, save for the hammer-on up from the C below every four beats (bars 26–29). This gives Lesh's line a flavor reminiscent of the verse sections of Eddie Cochran's rockabilly hit "Summertime Blues." Over this rather sly bass line, Garcia begins to fragment his four-beat idea back into a three-note smaller figure (bars 30–31). This fragmentation will serve to break down the rhythmic regularity of the proceedings, while retaining the Phrygian quality of the mode.

### **Section E (0:29 to 0:38)**

Garcia abruptly changes register and neck position (ex. 2), moving from the eleventh position to first position, at the bottom of the neck (bar 33). The pitch space covered in this precipitous registral change is two octaves, straight down. After so many repeated E $\flat$ –D oscillations in Section D, his first four notes in the new position seem to be searching for the E $\flat$ –D pair in that new lower position and octave. After playing an E natural and D, then E natural and D sharp, Garcia settles on the E $\flat$  and D two octaves below where he had previously been (bars 33–36). Toward the end of the section he begins to develop this line, first widening the pitch space to a perfect fourth and then syncopating it (bars 38–41). Lesh is playing a long line in synchronization with the drummers at this point, half notes and quarter notes describing long Ds, then a short chromatic move from C to C $\sharp$  to D (bar 39).

This section has a quality of stasis, as Garcia and Lesh seem to be waiting for something to happen. In this instance, Lesh will take the

**Example 2.** "Space," October 10, 1976, Part 2

Section E

E.Gtr.

Bass

Section F

E.Gtr.

Bass

Section G

E.Gtr.

Bass

Section H

E.Gtr.

Bass

"Space," by Jerry Garcia, Phil Lesh, Bob Weir, © Ice Nine Publishing Co., Inc., adm. by Universal Music Corp. Transcription by author.

initiative shortly by introducing an upward scalar movement and increased rhythmic density, to which Garcia will respond by echoing this directionality and gradually speeding up his melodic line.

**Section F (0:38 to 0:41)**

Lesh begins to move chromatically up from an F note (bars 42–43). His bass is indistinct in this section of the recording, but there is a definite chromatic move upward, with the note density increasing. Garcia seems to respond to this within about a beat and a half with an astounding ascending line that at first frames a C Mixolydian mode beginning on the third (or E Phrygian mode ending on the sixth), but quickly gains chromatic passing tones, all the while subdividing the beat into 2, 3, and 4 notes (bars 43–45). Thus he echoes Lesh's ascending, note-dense line with his own ascending, note-dense line. In the middle of Garcia's ascending phrase, Lesh lands on B flat, the sixth degree of D minor, before shortly continuing up the scale toward C (bars 43–45).

**Section G (0:41 to 0:44)**

With his ascending line at the end of section F, Garcia has defined the tonality conclusively. Having reached the top C (on the twentieth fret of his Travis Bean guitar) of his melodic line (bar 45), he now begins to snake it downward, framing a F major tonality before launching into a double-time D minor figure that quickly cycles through the scale, landing on a D note (bars 45–49). Perhaps responding to Garcia's peak high C note, Lesh plays his own high Cs (bars 46–47), then slides down to low G and A, landing on the strong dominant, or fifth note of the key of D, that has been established (bars 48–49). This move may be seen as Lesh closing off this D minor episode with a iv–V cadence.

**Section H (0:44 to 0:51)**

After briefly landing on the dominant A note, Lesh seems to have picked up on the metrical regularity of Garcia's line and, upon hearing the D that concludes Garcia's phrase (bar 49), locks into a grooving bass figure that moves between the tonic D and the dominant A above it (bars 50–53). Garcia in turn seems to respond to Lesh's line by leaving a gap in his line in the first half of the beat (bar 51), almost as if he is making sonic room for Lesh's dominant note—the A. He does this again in bar 53. Garcia draws exclusively from a D minor scale with a raised seventh (no sixth scale note is played, so it is unclear whether it is a D harmonic or

ascending D melodic minor scale) for the first full phrase, then seems to transpose into A minor with both raised and natural seventh (bars 53–56), a scale substitution that is reminiscent of some of the modal improvisations of John Coltrane, an influential figure for the Dead. Beginning his next line on a D, Garcia could be interpreted as playing in A minor or D minor. He begins a short motive (long-short-short-long) which is sequenced and inverted.

In the fifth bar of the double-time section Lesh varies his line with a syncopated soul-style scale run-up from the low octave of the dominant note up through the natural minor scale to the root (bars 54–56). This may be interpreted as another cadential move that clears the decks for Lesh's next bold move.

### Section I (0:52 to 1:00)

With Garcia still playing in a D minor and/or A minor mode (ex. 3), Lesh abruptly pounds a low G $\sharp$  note (bar 57). This note is a tritone below the now-long established D tonic note. The G $\sharp$  is harmonically distant from D and can plausibly be seen as a deliberately dissonant choice on

#### Example 3. "Space," October 10, 1976, Part 3

Section I

The musical notation for Example 3, Section I, consists of two systems of guitar and bass parts. The first system covers measures 37 to 56. The guitar part (E.Gtr.) is in treble clef and features a melodic line with eighth-note patterns and triplets. The bass part (Bass) is in bass clef and provides a rhythmic accompaniment with eighth notes and a prominent low G $\sharp$  note in measure 57. The second system covers measures 64 to 73, continuing the melodic and rhythmic themes with similar guitar and bass parts.

"Space," by Jerry Garcia, Phil Lesh, Bob Weir, © Ice Nine Publishing Co., Inc., adm. by Universal Music Corp. Transcription by author.



Lesh's part. One could also argue that Garcia has by now moved into an A minor tonality. If this is the case, then the G# is even more dissonant. It seems that Lesh is moving to destroy the tonality, and the irregular attacks with which he plays the repeated G#s (bars 58–61) suggest a destruction of regular meter as well.

After one bar of Lesh's low G#s, Garcia plays a brief cadential phrase that frames a D minor arpeggio landing on F. He lets this note hang for six beats (bars 60–63). Lesh seems to respond to this by imitatively letting his own note hang for four beats (bars 64–65), during which Garcia, having now abandoned the D minor and A minor tonalities, sequences through a symmetrical whole-tone scale, concluding with a chromatic up-and-down phrase. From this point "Space" continues on for a few more minutes leading into a drum segment, and then "The Other One."

### **The Aesthetics of "Space"**

The improvisational dynamics at play in this one-minute segment exemplify a practice of listening, suggesting, accepting, and disrupting. After Garcia and Lesh sketch out a vague C major tonality (Section A), Lesh establishes a D root tonality while Garcia pauses (Section B). Garcia joins in by playing lines that add a minor flavor to Lesh's D roots, while gradually accelerating rhythmically, and suggesting a quarter-note triplet rhythm, which Lesh picks up on (Section C). Garcia then fragments his melodic line into a small repeating motive and introduces a flattened second scale degree. At the same time, he plays a three-beat motive against the duple overall meter but soon evens out the motive to four beats, effecting a rhythmic synchronization with Lesh (Section D). Garcia then suddenly leaps down two octaves and expands his lines, in effect destroying the rhythmic cohesion that he and Lesh had briefly shared (Section E). This moment of uncertainty leads to Lesh initiating an upward scalar movement, a gambit that Garcia takes up with a rapidly accelerating scalar line in D minor (Section F). After reaching the top note of his line, Garcia undertakes a double-time phrase in D minor and Lesh seems to take this as a cue to bring his line to a cadence (Section G). In a seemingly telepathic moment, Garcia and Lesh come together on a double-time D minor groove. Garcia introduces an A minor scale idea

(Section H). Lesh then abruptly destroys the tonality and groove by dropping a low G# ‘bomb’ on the proceedings. Garcia seems to accept this and he moves into less tonal and predictably rhythmically territory as the excerpt ends (Section I).

In a single minute, then, we can see a quintessential expression of the Dead’s approach to free improvisation. Frederic Rzewski believed that “the great improvised music of the twentieth century may be remembered by future generations as an early abstract model in which new social forms were first dimly conceived” (qtd. in O’Donnell 2011, 7). If, as scholars such as Shaugh O’Donnell (2011), Jim Tuedio (2010), and David Malvinni (2013) have suggested, the Grateful Dead’s improvisation can be seen as a model of a new form of social interaction, “Space” can be viewed as a distillation of that interaction, taking place with no preplanned structure, in front of thousands of people.

Robert Freeman describes Dead-style jamming as modeling Victor Turner’s *communitas*: social relations that free us from the constraints of normative society. Of Turner’s types of *communitas*, spontaneous *communitas* best describes the practice of the “Space” jam. In Freeman’s view, “‘Spontaneous *communitas*’ is the awe experienced amidst intense interaction at the unplanned emergence of structure” (2000, 92). To Turner, what characterizes these spontaneous *communitas* moments is the way structure becomes liquified, as participants dissolve into a process of flow. Normative *communitas* is the establishment of a social structure to facilitate spontaneous *communitas*. The establishment of “Space” as a recurring site for free improvisations within a Dead show may be seen as normative *communitas*. As Freeman points out, “the improvisational situations most conducive to intense interaction are those where participants are freed to improvise entire structures rather than improvising within structures” (2000, 92). Thus the act of spontaneously creating and interacting builds structures to foster further creation and interaction.

By persistently playing “Space,” the Dead created a space where “Space” could exist. That they did this so consistently through their long performing career was a signal achievement of that great process called the Grateful Dead. After all, as Jerry Garcia famously observed,

“Formlessness and chaos lead to new forms. And new order” (Garcia, Reich, and Wenner 1972, 128).

---

## NOTE

1. Setlist.fm (2017) lists 1,063 occurrences of “Space” while Headyversion.com lists only 308. This illustrates the problems of enumerating “Space” performances; *DeadBase* (Scott, Dolgushkin, and Nixon 1999) groups “Drums” and “Space” together as a single song they label “Drumz”; other authorities simply consider “Space” to be a transitional jam and do not list it at all.

## WORKS CITED

- Arcangel, Cory. 2008. “Difference Tones: Cory Arcangel on the San Francisco Tape Music Center.” <http://www.coryarcangel.com/wp-content/uploads/2010/07/Cory-Arcangel-Tape-Music.pdf>.
- Boone, Graeme. 1997. “Tonal and Expressive Ambiguities in ‘Dark Star.’” In *Understanding Rock: Essays In Musical Analysis*, edited by John Covach and Graeme Boone, 171–210. New York: Oxford University Press.
- . 2010. “Dark Star Mandala.” In Tuedio and Spector 2010a, 85–106.
- . 2014. “Dark Star: Biography of a Song.” Paper presented at So Many Roads: The World in the Grateful Dead, San Jose State University, San Jose, CA, November 8, 2014.
- Bralove, Bob. 2014a. Telephone interview by author, October 8, 2014.
- . 2014b. Email to author, October 6, 2014.
- Cahill, Sarah. 2008. “Radical Connections: Phil Lesh and Elliott Carter.” *New Music USA*. <http://www.newmusicbox.org/articles/radical-connections-elliott-carter-and-phil-lesh/>.
- Dodd, David G., and Robert G. Weiner. 1997. *The Grateful Dead and the Deadheads: An Annotated Bibliography*. Westport, CT: Greenwood Press.
- Freeman, Robert. 2000. “Other People Play the Music: Improvisation as Social Interaction.” In *Deadhead Social Science*, edited by Rebecca G. Adams and Robert Sardiello, 75–108. Walnut Creek, CA: AltaMira Press.
- Gans, David. 2002. *Conversations With the Dead: The Grateful Dead Interview Book*. Revised ed., Cambridge, MA: Da Capo Press.
- Garbarini, Vic. 1981. “In Search of the Grateful Dead.” *Musician* 36 (September 1981): 60–63.

- Garcia, Jerry, Charles Reich, and Jann Wenner. 1972. *Garcia: A Signpost to New Space*. San Francisco: Straight Arrow.
- Grateful Dead. 2004. "Space." In *October 9 and October 10, 1976, Oakland Stadium, Oakland, CA*. Dicks Picks 33. Grateful Dead Records DECD275, 4 compact discs.
- Jackson, Blair, and David Gans. 2015. *This Is All A Dream We Dreamed: An Oral History of the Grateful Dead*. New York: Flatiron Books.
- Kaler, Michael. 2014. "Ensemble Stuff: The Grateful Dead's Development of Rock-Based Improvisational Practice and its Religious Inspiration." Ph.D. dissertation, York University.
- Meier, Barbara. 1992. "Jerry Garcia Speaks With Barbara Meier." *Tricycle: The Buddhist Review* 3 (Spring 1992): 56–58.
- Malvinni, David. 2013. *Grateful Dead and the Art of Rock Improvisation*. Lanham, MD: Scarecrow Press.
- O'Donnell, Shaugn. 1999. "Space, Motion and Other Musical Metaphors." In *Perspectives on the Grateful Dead*, edited by Robert G. Weiner, 127–35. Westport, CT: Greenwood Press.
- . 2011. "The Big Bang and the Formation of 'Space'." Paper presented at the joint meeting of the Popular Culture/American Culture Association with the Southwest/Texas Popular/American Culture Association, San Antonio, TX, April 21, 2011.
- Randal, Don, ed. 1986. *The New Harvard Dictionary of Music*. Cambridge, MA: The Belknap Press of Harvard University Press.
- Scott, John W., Mike Dolgushkin, and Stu Nixon. 1999. *DeadBase: The Complete Guide to Grateful Dead Song Lists*. 11th ed., Cornish, NH: DeadBase.
- Setlist.fm: The Setlist Wiki*. 2017. <http://www.setlist.fm/>.
- Shenk, David and Steve Silverman. 1994. *Skeleton Key: A Dictionary for Deadheads*. New York: Doubleday.
- The Deadlists Project. n.d. <http://www.deadlists.com/>. Accessed October 3, 2017.
- Tuedio, Jim, and Stan Spector, eds. 2010a. *The Grateful Dead in Concert: Essays on Live Improvisation*. Jefferson, NC: McFarland.
- . 2010b. "Introduction: Shall We Go?" In Tuedio and Spector 2010a, 11–14.
- Tuedio, James A. 2013/2014. "'It All Rolls Into One': The Allure of Chaotic Synergy in Grateful Dead Improvisation and Musical Dialogue." *Grateful Dead Studies* 1: 50–69.
- Wood, Brent. 2010. "The Eccentric Revolutions of Phil Lesh." In Tuedio and Spector 2010a, 43–57.

MIKE DALEY is a musician and lecturer based in Toronto. He has written on Jimi Hendrix, Bob Dylan, Patti Smith, and others, and is currently working on a research project on the Toronto music scene in the 1960s.