

On the night of July 31, 2013, the improvisational rock band Phish played a version of their song “Tweezer” in Lake Tahoe, Nevada, that lasted almost 37 minutes. Its mammoth length was due to the fact that it moved seamlessly through over half a dozen discrete improvisational episodes that varied in harmony, dynamics, melody, and groove. Fans instantly heralded the jam as one of the most adventurous and exciting of the band’s career.

Like many fans of the band, I was at home listening to live streaming audio of the concert, and simultaneously conversing in disbelief with other fans on Twitter. Within minutes of the jam ending, *Hartford Courant* music journalist Michael Hamad tweeted an image from his personal account of a rough “Tahoe Tweezer roadmap,” tracking the jam’s harmonic trajectory. Many fans expressed amazement and enthusiasm for Hamad’s drawing. A frequent theme in the public reactions to Hamad was a lack of understanding of music theory that would clarify exactly what he represented in his diagram. An equally prominent response was “do you have any more of these?,” often from the same commenters.

My project explores this very paradox: that many Phish fans admit to loving Hamad’s maps while having no understanding of their music theory content. Phish fans privilege improvisation that moves through a variety of melodic, harmonic, and rhythmic areas as the highest form of the band’s musical expression. Hamad has created an analytic notation that fosters an affective connection between Phish fans and the maps, revealing how fans’ listening practices are acutely conditioned to recognize journeys through harmonic space. The cartographic nature of the diagrams intuitively resonates with Phish fans since Hamad’s work represents a notion of musical journeying that is fundamental to the Phish experience.

Formed in 1983, Phish consists of Trey Anastasio on guitar, Mike Gordon on bass, Page McConnell on keyboards, and band namesake Jon Fishman on drums. Phish built their reputation

as a band always willing to take chances, to be weird, and to never play the same show twice, both by varying the setlist every night and by improvising. Phish was certainly influenced by the Grateful Dead, although this comparison has long been over-emphasized, in part due to the non-musical similarities between the bands' fanbases. Significantly, Phish was also influenced by an improvisational style that avoids the model of a soloist improvising over chord changes, popularized by jazz/rock fusion bands from the 1970s, including Herbie Hancock's Mwandishi group and Pat Metheny.¹

Still, one musical aspect Phish does share with the Grateful Dead is the latter's approach to a group style of improvisation, in which each band member listening to one another is more important than the virtuosity of any individual player. Author Walter Holland refers to Phish jams as "improvised *arrangement*" rather than a "solo."² Fishman has admitted that even when Anastasio or McConnell take a solo, "there's always a conversation going on underneath whoever's soloing."³ The members of Phish say that their improvisational approach often involves listening to a different member of the band and reacting to what they're playing, either through imitation, counterpoint, or complementation. It is this democratic approach that allows the band to move relatively freely between keys, moods, and grooves within a single jam. The Tahoe Tweezer exemplified this idea of a series of episodic jam segments, of stable improvisational areas smoothly connected by moments of instability.

Mike Hamad's Phish fandom began in high school in 1990, but his interest waned after 1994. He completed his Ph.D. in musicology from Brandeis in 2005, with a dissertation titled

¹ Walter Holland, *A Live One*, 33 1/3 (New York: Bloomsbury Academic, 2015), 16-21.

² *Ibid.*, 6.

³ Richard Gehr and Phish, *The Phish Book* (New York: Villard, 1998), 86.

“True Interpreters of Words: Tonal Distances in Franz Liszt’s Early Songs.” Hamad left academia and is now the staff music writer for the *Hartford Courant*, covering mainly popular music and jazz. When Hamad reintroduced the band’s music into his life in 2010, he felt the feeling he’d forgot, and realized that much of the listening for tonal relationships he had cultivated while analyzing Liszt songs applied to the large-scale tonal relationships in Phish jams. Hamad devised a simple system of representing tonal distance using boxes and arrows for his dissertation.

Hamad began notating these kinds of movements between keys in Phish’s music mainly as a way to help him make sense of what the band was doing during lengthy improvisations. He noted how the timing of his “Tahoe Tweezer” roadmap tweet, right after the jam had ended and fans were all online enthusing about it, helped his map go viral throughout the Phish community, saying that “everybody on Twitter at that moment sharing it just sent it out there spinning endlessly.”⁴ Within a few days, encouraged by the initial positive response, Hamad began sharing maps of older well-known jams, started a new twitter account called @phishmaps which has amassed almost 4000 followers, and established a tumblr which he called Setlist Schematics.

Laudatory responses to his maps among fans were common throughout social media. However, those outside the Phish community also began to take an interest in the maps, and features in the McSweeney’s publication *Believer Magazine* and *The Village Voice* followed in the ensuing year.⁵ In part this is because Phishmaps are artistically intriguing, as Hamad asked rhetorically in his *Believer* article: “if you make music theory something fascinating to look at,

⁴ Interview with Michael Hamad, 30 September 2013.

⁵ Michael Hamad, “Schema: Song Schematics,” *The Believer* 12, no. 6 (July 2014); Richard Gehr, “Eight Things You’ll See and Hear at Phish’s MSG Run,” *Village Voice*, 26 December 2013.

will more people become interested in learning about it? I hope so.” Hamad attracted his largest audience yet with a video spot on the *New York Times* ArtsBeat blog, with text and narration by pop music critic Ben Ratliff.⁶ It was in this video that Hamad articulated the paradox that fans requested to see certain favorite jams in diagram form, which “blew [his] mind, because they also suggested that they had no idea what these things meant.”

After his initial Tahoe Tweezer map Hamad began to streamline his diagrams, both cleaning up the organization as well as adding more detail and coming up with a series of standardized terms that he frequently uses. These terms are all now listed on a legend on his website, setlistschematics.tumblr.com. The map I will use as an example is a diagram of a 23-minute version of “Tweezer” from October 20, 2013, at the Hampton Coliseum in Hampton, VA. The first four and a half minutes of “Tweezer” are relatively invariant between versions, a very simple, funky blues song in A minor with a pentatonic melodic quality and a signature riff featuring multiple pull-offs on the D and A strings.

For fans, the song part of “Tweezer” is merely a warmup for the real meat of the performance, which is the open-ended jam that begins around 4:42 of this version, and which Hamad indicates as [JAM], marking it as a separate entity from the earlier song. In the opening stages, McConnell plays a IV chord every fourth measure, which Hamad notates using Roman numerals. Gordon establishes a bass motive and McConnell switches to the electric Fender Rhodes piano. Hamad also represents the muted guitar strumming on the opening two eighth notes of each bar with little peaks.

⁶ Ben Ratliff, “Video: How to Draw a Phish Song,” ArtsBeat blog, *New York Times*, 30 June 2014, <https://nyti.ms/2iBdlzk>.

In example 1 from the poster, the dynamics begin to build in the drums, with Fishman playing more loosely with his cymbals. McConnell has moved back to grand piano, and he and Anastasio exchange some imitative playing. The band as a whole briefly tonicizes the subdominant D major on a downbeat, but this doesn't stick and both Anastasio and Gordon resolve back to A minor. Hamad indicates this with the bracketed D, to imply an tonicization rather than complete modulation. After returning to A minor, Anastasio begins to create a tremolo effect using his wah pedal, which initiates a dynamic drop and dissolve into a more ambient texture. Hamad uses the double arrow downward here to indicate this significant mood shift in the jam, and then indicates that a pulse is still clearly present, along with guitar effects and distortion in McConnell's clavinet.

At this point, we come to the first significant modulation in the jam. Gordon begins playing a two note ostinato on C, using his low B string, and then moves up to E through D. McConnell immediately begins to play a cadential figure in E minor every 4th bar, while Fishman builds the dynamics with a funk groove. In example 2, Fishman eventually switches over to a more rock styled beat, while McConnell is using the wah effect on his clavinet, and Anastasio finds a repeating motive of b7-6-5 in E. The presence of the C# as scale degree 6 here gives the jam a Dorian flavor, and facilitates the establishing of a I-IV jam that echoes the earlier I-IV jam from the A minor section.

Phish fans have taught themselves how to listen to the band's music with an ear for large-scale formal relationships. One indication of this is that fans devised a language to describe formal departure within jams. A fan named John Flynn wrote the following in an online posting to the usenet group rec.music.phish from January 1997: "I think Phish jamming falls into two

types of jamming: 1) Jamming that is based around a fixed chord progression 2.) Jamming that improvises chord progressions, rhythms, and the whole structure of the music.”

Fans soon adopted this language and began to refer to song versions and their jams as either type I or type II. Type II jamming is, for many fans, the highest expression of Phish’s music. The very fact that this language has become a common part of the discourse among fans illustrates the centrality of musical exploration to the Phish fan experience. Although they may not be familiar with the specific harmonic operations at play within a jam, fans are quick to notice when a song’s known chord progressions, rhythms, and structure falls apart and becomes malleable through improvisation. In fact, these moments are often cheered at concerts.

Thus, the very notion of musical exploration, of departure from a known space into unknown musical space, is central to Phish’s jamming and to the fans’ experience thereof. Drummer Jon Fishman acknowledges this when he said “our music invents a geography. It draws a big map.” He elaborate that the composed section of the song is the land, where they “build the boat.” Then they “get into the water” with the jam and “we’re like Columbus.”⁷ Clearly, exploration is a central component to their idiom.

Returning then to the central question at hand—why are so many fans enthralled by technical diagrams that they don’t understand? I contend that Hamad’s Phishmaps foster an affective bond between the fanbase and the music, in part because of the unique ways that Phish fans construct scene identity. Elizabeth Yeager has theorized that the identity of the Phish scene is a “spatial articulation of affective authenticity,” which is “produced and formed by scene

⁷Gehr, *The Phish Book*, 54.

members themselves.”⁸ In other words, the emplaced experience of the concert becomes the locus for scene identity. The Phish concert is where social interaction, ritualized activities, and musical materiality all intersect. This does not, however, mean that scene identity is closed off from those not present at the concert. Streaming audio, or what Phish fans call “couch tour,” has obviated the need for physical presence at the show in order to participate in the various experiences that were previously emplaced within the concert space. The ability to discuss the music in real time through social media further facilitates the production and articulation of scene identity. The virtual space opened up by social media such as Twitter in fact becomes an extension of the physical space of the concert.

Hamad’s diagrams function as objects that belong to the scene as well. Phishmaps are images that represent musical values in which fans place a high value: exploration, experimentation, freedom, and psychedelia. Following Benedict Anderson’s argument in *Imagined Communities*, images impregnated with meaning serve to unite the scene.⁹ The fact that Hamad calls them maps is significant, because it opens up the potential for the music to be conceived of spatially. A geographic map is a representation of a landscape in multiple dimensions. Similarly, Hamad’s Phishmaps represent Phish’s improvisation in multiple dimensions, adding the element of space to the already present temporal dimension of music. Philosopher Edward Casey argues that space is meaningful only as a subjective experience, as

⁸ Elizabeth A. Yeager, “Understanding ‘it’: Affective Authenticity, Space, and the Phish Scene” (Ph.D. diss., University of Kansas, 2011), 7.

⁹ Benedict Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism* (London: Verso, 1983).

relationships between the self and one's surroundings.¹⁰ By aiding to spatialize the music, Phishmaps further the bond between the listening self and the music.

Another aspect that deepens the connection between scene identity, fans, and the maps is that Hamad uses terms culled from the vernacular language particular to Phish fans. Fans engage regularly in what scholar Natalie Dollar calls "communicative cultural forms," in which "members both implicitly and explicitly display their shared identity."¹¹ In other words, fans use language to demarcate and assert their belonging to the scene. Hamad incorporates the language that fans already use to describe musical elements. In the "Tweezer" map from 10/20/13, the jam section he calls "Bliss" comes from the term "bliss jam" that many fans use to describe a major mode jam that follows a minor mode segment, or to describe a soaring peak of dynamics, melody, and color (see example 3). In other maps, such as the one of the song "Tube" from December 7, 1997 in Dayton, Ohio, aphoristic song lyrics are incorporated into the maps as well. The phrase "so stupendous" is instantly recognizable as part of the song "Tube" to most Phish fans.

Finally, there is a purely aesthetic connection between many fans and the Phishmaps. Simply put, Hamad's work has transcended music theory and entered into the world of artwork. While his earliest maps had a certain beauty in their geometry and clean lines, Hamad gradually started to introduce a variety of other visual components to the maps. Color became a variable, in both the text and lines and also in the backgrounds of the maps. Some of Hamad's most recent maps are highly calculated works that aim for a specific kind of shape and representation of

¹⁰ Edward S. Casey, *Getting Back Into Place: Toward a Renewed Understanding of the Place-World* (Bloomington: Indiana University Press, 1993).

¹¹ Natalie J. Dollar, "'Show Talk': Cultural Communication Within One US American Speech Community, Deadheads," *Journal of the Northwest Communication Association* 27 (Spring 1999): 105.

musical space, such as the “Tweezer”->”Prince Caspian” from August 22, 2015, where even the key letter names have become integrated into the shapes and lines of the map.

In some cases, the visual component of the map becomes another tool in strengthening the affective bond to fans because Hamad manages to capture how fans feel about a particular jam with his visuals. In a monumental 39-minute version of the song “46 Days,” Hamad uses color to connect to elements of psychedelia in the music, including ambient drones, highly active microtextures that produce a relatively static composite sound, and modal jamming. Fans often describe this jam as particularly thick and dense, and very trippy or spacey. Because Hamad’s maps are proportional, he represents this textural density visually as the diagram has expanded far outwards beyond the horizontal axis of time. During a version of the song “Ghost” from New Year’s Eve 2010, Phish built a very calculated major key jam, atypical for this song, from a low dynamic to an exultant peak, increasing linearly in range, dynamic, and rhythmic activity until its ecstatic release. Many fans found a high level of spirituality in this shared ecstatic peak and took to calling this jam the “Holy Ghost.” Hamad’s choice to represent the entire map as, in his words, a “giant flaming arrow” encapsulates the zero-to-sixty singleminded trajectory of this particular jam, but also captures the exuberance fans feel for this jam. Hamad said that he was “completely surprised” by some of the shapes that emerged, because he never realized that the process of drawing Phishmaps would ever yield results that represent the music visually. Nor did he expect that his graphical impression would resonate visually with fans.¹²

Hamad expressed to me that it was always his goal to have people follow along with the maps while listening, and in doing so perhaps raise the musical understanding of fans. Yet since

¹²Phone interview with Michael Hamad, 21 January 2016.

so many fans tell him that they don't understand the content of his maps, he feels as though he was unsuccessful in that endeavor. I argued back to him that I believed he had successfully clued fans in to the conception of modulation as something that Phish does in their best type II jams, even if they don't actually understand the particular mechanics. In fan reviews of shows, and in the daily discussions on social media, I find that today many more fans attempt to talk about Phish jams switching from major to minor keys, or moving to new keys within a jam. Sometimes they're right, sometimes they're close, sometimes they're flat out wrong. But what is clear is that fans continue to place a premium on harmonic exploration, and the Phishmaps have given fans both a new vocabulary and a visual representation for these musical journeys.