

### Woo Young-Woo: Autistic, Not a Child

Tiffany Ta, University of California, Santa Barbara

Woo Young-Woo, protagonist of the Korean Netflix series *Extraordinary Attorney Woo* (2022), is a 27-year-old professional lawyer at a high-profile firm. She possesses an eidetic memory, claims an IQ of 164, and boasts an encyclopedic mind for whale facts. She's also autistic. Like so many other adult autistic characters on screen, show-makers code Woo to caricature her as childlike. This includes the musical theme that composer Roh Young-Sim scored to represent Woo, "Woo Young-Woo, the Same Backwards and Forwards" (WYW). The show uses this music for the title sequence which starts every episode, as well as when Woo is introduced for the first time as an adult. Using topic theory (Ratner 1980), I demonstrate how WYW infantilizes her by invoking the childhood topic (Janet Bourne 2024). I also employ the Congruence-Associationist Model, or CAM, (Cohen 2013) to exemplify how the audiovisual design amplifies the topic with semantic and temporal congruence.

By using specific musical flags, topics signify clear concepts to most listeners as a result of preconditioned exposure. Every topic includes two parts, each of which has its own list of possibilities: musical features and socio-cultural associations. Bourne supplies a list of 10 certain musical features that, when combined, evoke the concept of "child." WYW engages eight of these ten: major mode, high instrumentation, ostinato, sparse texture, syncopation, running notes, diatonicism, and a simple, singable melody. To further fortify the childhood topic, the portrayal of Woo integrates socio-cultural associations to childhood: fantasy, imagination, wonder, vulnerability, innocence, family relationships, and goofiness.

CAM posits that multimedia audiences combine lower-order sensory input and higher-order knowledge to create meaningful scenes and narratives. When the pilot episode first introduces Woo as a child, the music surprisingly does not involve the childhood topic. Aside from the title sequence, the only time viewers hear WYW is when Woo is introduced for the first time as an *adult*. This scene comprises of Woo waking up in a room full of various whale-themed knickknacks, donning fuzzy whale-shaped slippers, putting away whale-shaped stuffed animals, and then trying on the special outfit that her father hung up for her. The visuals and the music would work just as well together if Woo were replaced by an actual child waking up to get ready for school.

The overrepresentation of autistic children (rather than autistic adults) in the media has led to a widespread misconception that autism occurs only in children. And even when an autistic character on screen is an adult, Hollywood still subliminally infantilizes them. These portrayals cultivate assumptions about what autism "ought" to look like, consequently generating barriers to support for actually autistic adults. By exposing harmful practices around autism representation, media creators might replace these decisions with more accurate depictions of autism which would better support real autistic people. *Extraordinary Attorney Woo* took a positive step forward in destigmatizing autism with the decision to center an autistic character. I hope show-makers will progress further with more realistic portrayals of autistic adults in the forthcoming second season.

### A Framework for Tangled Diegetic Hierarchies in Recorded and Cinematic Music

Ryan Galik, Michigan State University

Manipulation of a work's diegetic hierarchies, or narrative embedding, has gained significant traction in recent contemporary music, yet little music scholarship addresses systematic ways to analyze the practice or its ramifications on a listener's narrativization of a work (Margulis 2022). I propose a framework for approaching, categorizing, and comparing diegetic hierarchies, or embedded narratives, in contemporary music and I assert its usefulness via multiple demonstrative analyses. After an overview of historic and recent literature on musical diegeses (Rimmon-Kenan 1983; Gorbman 1987; Heldt 2012) and its intersections with narrative studies more broadly (Souriau 1951; Genette 1980; Bal & Tavor 1981) I offer a spatial planar metaphor adapted from Monahan (2013) to suggest a lens through which film, texted, and instrumental music alike can be viewed. In this graphic, each plane represents a narrative diegesis within which elements of the music can exist. Generally, I understand nondiegetic film music to occur on the "Shakespeare" plane, and diegetic music to occur on the "Hamlet" plane, with further embedded narratives occurring on the "Gonzago" plane, or even further below. However, this approach also provides means to reexamine other narrative terminology that has grown excessively unwieldy. *Transdiegesis* (Hunter 2012), for example, refers to "S↔H" motion in either direction, whereas *supradiagesis* (Altman 1987) refers to simultaneous "S and H" events, especially those that interact. Further film examples activate seemingly impossible combinations for

which there exist no clear classifications, such as musical events placed in simultaneous “S and G” superpositions, as a scene from Todd Phillips’s *Joker* (2019).

I then investigate the occurrence of these sensations, initially established through visual cinematic examples, in non-visual and/or non-texted music. I propose three *diegetic wormholes*, or strategies that allow music under these limitations to nonetheless establish or traverse narrative diegetic layers. Using a semiotic lens, I explore the ramifications of *metamusical signifiers*, or signs that themselves suggest an embedded musical object, and thus a secondary diegetic environment or “virtual space” (Moore, Schmidt, & Dockwray 2011; Duguay 2022) in the music of Pink Floyd. I then consider structural designs through recursive or extroversive musical structures. Borrowing from Amiot (2008), I discuss *autosimilar* melodies that recursively contain their own structure. I represent this phenomenon in Tom Johnson’s 1982 *Rational Melody XV*; notice that each pitch clockwise from A is the same as every other pitch, or every fourth pitch, and so on. George Crumb’s 1972 “Dream Images” from *Makrokosmos I* further invites discussion on the role of quotation in narrative embedding. I then provide a brief account of the role of text-driven narrative embedding, or *attributive discourse*.

I conclude my presentation with a model wherein the agential hierarchy—Monahan’s “chain of command”—is paradoxically entangled, what Douglas Hofstadter (1979) calls a tangled hierarchy or *strange loop*. I recognize and discuss the implications of this paradoxical diegetic treatment in two separate theatrical works, Michael R. Jackson’s 2020 Pulitzer Prize-winning Broadway musical, *A Strange Loop*, and in Thomas Adès’s 2016 opera, *The Exterminating Angel*.

### Teaching Theory, Teaching Games: Video Game Music as a Pedagogical Asset Holly Bergeron-Dumaine, University of British Columbia

In this talk, I argue that Video Game Music (VGM) represents a key pedagogical asset in reconceiving the core Music Theory curriculum as diverse, culturally capacious, and reflective of contemporary musical and music-theoretical practices. It represents a largely untapped resource for Theory instructors wishing to re-weight curricula toward understudied musical parameters, or overhaul lesson structure by leveraging contemporary scholarship and public music theory to implement a flipped classroom. I showcase the strengths of VGM as a platform for teaching both timbre and tonal pitch organization.

I first examine how VGM’s idiosyncratic and eclectic approach to genre allows the instructor to introduce the study of timbre in an intuitive, culturally situated way, outlining a lesson plan based on Masatoshi Yanagi’s soundtrack to *Ghostwire: Tokyo* (2022). Evoking the juxtaposition of dense contemporary urban environments with ghosts and spirits drawn from traditional Japanese mythologies, Yanagi’s soundtrack blends the instruments of Gagaku with sounds and formal strategies characteristic of EDM production. Using this unique combination as a point of departure, students encounter sharp contrasts in timbral profile and ways of organizing time that map directly onto concrete experiences of gameplay. These encounters serve as an intuitive platform for learning to interpret spectrogram visualizations, as auditory and thematic oppositions translate into equally striking visual phenomena (spectrographic “cross-hatching”). More broadly, I map out the pedagogical potential of *Ghostwire: Tokyo*’s culturally hybrid soundtrack. This approach opens the door to both more in-depth study of Gagaku according to the “decolonial option” proposed by Reid (2022) as well as further study of rhythm and form in EDM, which has historically been marginalized in Music Theory scholarship (Lavengood 2021).

Meanwhile, the more traditional topic of tonal pitch organization benefits from VGM’s rich body of Public Music Theory and published research adaptable to undergraduate audiences. Much VGM scholarship employs a straightforward, accessible style of analytical description, while classic tracks from the 8-bit and 16-bit eras (c. 1983–1995) respond well to tools and concepts encountered in a typical Theory core curriculum. Jessica Kizzire’s (2023) recent work on *Final Fantasy VII* (1997) serves as one such example, which instructors can excerpt for pre-class reading or use as a basis for directed work on analytical writing skills (Figure 3). In a flipped classroom setting, video essays—such as 8-bit Music Theory’s (2021) didactic introduction to voice leading in “Eye to Eye” from *Final Fantasy IX* (2000)—support instructors’ materials while providing platforms for active learning and critique. Outlining a corresponding lesson plan and pedagogical mind map (Figure 4), I argue that effective use of these contemporary exemplars of public and academic scholarship can enhance student motivation by situating course content in a dynamic landscape of evolving musical practice and thought.

Overall, I outline the effectiveness of VGM as a teaching tool in a time of accelerating curricular

reform efforts and critical re-evaluation of pedagogical practices. Along the way, I provide practical, actionable lesson planning leads for instructors seeking to leverage VGM's classroom potential.

### Blocks and Tunes: The Role of Music in 3D Platformers

Hayden Harper, Florida State University

Music in video games possesses a variety of functions depending on how a game applies it. In the game genre of 3D platformers, the player moves their character through a three-dimensional environment primarily by running and jumping while background musical tracks accompany the various game levels (like in *Super Mario 3D World*). Expanding upon scholarship on video game music (Cheng 2013; Grasso 2020; Austin 2021), I examine the communicative potential of music in 3D platformers using several examples from the genre. In this paper, I propose three functional categories for music and sound aiding players in completing difficult platforming sections: point-of-view layering, hypermetrical coordination, and vertical resequencing.

Expanded upon the concept of point-of-view sound in film music described by Buhler and Neumeyer (2016), point-of-view layering arises in 3D platformers when the player moves their characters next to obstacles and enemies that add vertical layers to the looping background music. The level "Off Beat" from *Crash Bandicoot 4: It's About Time* contains several examples of point-of-view layering, such as when the player encounters ghostly musicians who only contribute to the background music while they appear on-screen.

Hypermetrical coordination occurs between sound effects and music, producing a combination that aids the player in completing a game level unscathed. For example, the level "Beep Block Skyway" from *Super Mario 3D World* features beep sound effects and block platforms that change color to the beat of the music. On the hypermetrically weak measures, the beep sound effects occur on beats two, three and four. The blocks change color on hypermetrically strong measures, so the player must carefully entrain to the hypermeter to know when to jump to safety. If the player can attune to the music and entrain to the beat, they will surely overcome obstacles timed specifically with the music.

Vertical resequencing transpires when the vertical layers of the music are switched on or off depending on some in-game action. Medina-Gray (2019) describes the smoothness between such transitions in action-adventure games. In 3D platformers, typically the action of jumping triggers the transition between vertical layers. For instance, the music in the level "Nyakuza Metro" from *A Hat in Time* utilizes two vertical layers. When the player is on the ground or falls off a train, only the less rhythmically active vertical layer 1 appears in the soundtrack. As soon as the player jumps to a train, the music switches to the more rhythmically active vertical layer 2.

I argue that music and sound in 3D platformers aids the player as they complete difficult platforming sections because of techniques such as point-of-view layering, hypermetrical coordination, and vertical resequencing. By focusing on the functional actuality of audio in this genre, I show that music and sound play a powerful communicative role in screen media even if they are supposedly relegated to the background. Such examples demonstrate the various ways we as players, musicians, and listeners interact with and attune to music in multimedia contexts

### A Typology of Multistable Phenomena in Minimalist Music

Kristen Wallentinsen, Rutgers University

Minimalist composers often invoke multistable visual imagery, in which a single image (like the "duck-rabbit") affords multiple interpretations without change to the image itself, to describe their music's effects on listeners' experiences. Philip Glass, for example, compares his harmonic structures to "those kinds of optical illusions where you can look at a stair going one way or you can look at it going the other way" (quoted in Richardson 1999, 74), and uses Sol LeWitt's drawing of Necker's cube as cover art for *Music in Eight Parts* (2020). Similarly, Steve Reich writes that "one's listening mind can shift back and forth within the musical fabric, because the fabric encourages that" (2002, 130). Taking its cue from these comparisons, this paper explores multistability as an analytical framework to study interpretive flexibility in minimalist music. I draw upon theories of multistability from philosophy and psychology (Timmers, Arthurs, and Crook, 2020; Koralus 2014; Ihde 2012; Moore and Gockel 2012; Bregman 1990) to examine how multistability manifests in unique ways across the compositional practices of a variety of minimalist composers. By illustrating the ways multistability occurs differently across various works, I create a typology of multistable experiences based on multistable analogs in other perceptual domains (like vision).

To illustrate my typology, I present a series of examples from the minimalist repertoire. In Reich's phasing works, multistability manifests as different resulting patterns emerging from a background texture (Wallentinsen 2022, Duker 2013), drawing upon perceptual mechanisms of auditory scene analysis (Bregman 1990) in ways akin to visual analysis of Rubin's face/vase illusion (Rubin 1958). This relies on the segregation of a figure from a background for its multistable interpretation. However, multistability appears differently in Glass's early works, where it is experienced as a shifting of melodic shapes based on perceived accent structures. This type of multistability is like Necker's cube (Necker 1832), where the perceptual difference involves a shift in the object's orientation. In LaMonte Young's and Eliane Radigue's works, we experience multistability through emerging phantom timbres in the overtones of musical drones. As Kyle Gann has observed with respect to Young's *The Well Tuned Piano*, "once a cloud [of sound] is set in motion, the ear may hear what sound like foghorns, voices, bells, even machinery...resulting from complexes of rationally tuned periodicities" (1993, 149). These experiences shift the perceived identity of the sound, just as the perceived identity of the duck or rabbit shifts. In Meredith Monk's *Turtle Dreams*, we experience multistability through exploitation of phoneme similarity analogous to the McGurk effect (McGurk and Macdonald 1976), an illusion that distinguishes between multistable interpretations of sounds like "ba" or "fa" using visual contexts.

Throughout the proposed typology, I examine meaningful differences in the perceptual mechanisms of each type, and provide examples from minimalist repertoire to demonstrate typological categories. My typology ultimately offers a nuanced way to analyze the workings of multistability in minimalist music, and suggests new ways of understanding musical ambiguity more broadly.

### Rhythm and Meter in Modernism: A Case Study in Sibelius's Music

Heyner Rodriguez, University of Arizona

With the advent of the Baroque period, the change from prima to seconda prattica, and the coalescence of functional tonality, rhythmic notation and theoretical explanation moved from a mensuration system to the modern one of fixed note values. This change created the common conception of meter as a container (homogenous) and rhythm as content (heterogenous). Underpinned by some 20th-century philosophers' reconceptualization of time, Christopher Hasty proposed a dynamic model of rhythm and meter based on the projection of potentials and durations that accounts for the listener's undivided experience of the two phenomena.

Hasty's method of projection also reconfigures previous notions of hypermeter, creating an alternative that overlaps with Schenkerian notions of metric prototype and expansion. Both methods focus on musical regularities and symmetries of Classical and Romantic styles through tonality's support. However, both of these perspectives overlook early 20th-century Modernism, a post-common practice tonal style that stands apart from both tonality and atonality.

Modernism's phrase rhythm does not rely so much on durational equality but on the constant reinterpretation of time spans through the self-conscious transformation of compositional gestures. Functional changes in durations (as beginnings or continuations) thwart the judgment of equality between time spans larger than the notated bar.

The present paper uses the exposition of the first movement of Sibelius's Symphony No. 2 as a case study of how constant changes in durational determinacy and equality make the assessment of phrase rhythm more elusive. This exposition presents two stylistic traits common in this period: (1) transformations that weaken the sense of durational determinacy, such as interruption, dissolution, fragmentation, acceleration, suspension, intersection, and imbrication; and (2) the independence of perceived meter from the notated bar.

This latter trait generates a salient perceptual conflict that is enlivened by the frequent shift of the perceived meter to different positions within the notated bar. The symphony exhibits this feature from the very beginning by setting the initial theme's accompaniment and melody on different pulses of the bar through functional transformation of these durations. The ambiguity of these shifts is also enhanced by the inclusion or omission of an initial rest before the sounding pitch-content in these time spans.

The analysis of these strategies and gestures outlines the stylistic break in Modernist music from both the preceding Romantic style and the following atonal and serial styles. Although sporadic instances of these strategies can also be found in other repertoires, the novel aspect of Modernist phrase rhythm resides in its systematic use to achieve a characteristically continuous transformation of durational determinacy, distinct from both Romanticism's symmetry and atonality's pervasive indeterminacy. This analysis of phrase rhythm and functional transformation

accounts for (1) the listener's singular stream of experience that does not separate the perception of meter from rhythm, and (2) the Modernist compositional aesthetic of altering previous customs and norms to produce a dynamically fluid sense of durational determinacy.

**“All the Lonely Starbucks Lovers”: Prosodic Dissonance in Taylor Swift’s Discography**  
Alex Shannon, Indiana University

Taylor Swift’s music is marked by conflict between textual prosody and musical meter. While some scholars, such as Eron (2020) and BaileyShea (2021), have incorporated Swift’s music into their work on prosodic dissonance, there has yet to be a comprehensive study addressing this characteristic across her repertoire. Prosodic dissonance has famously caused listeners to mishear some of her lyrics, as referenced in the title. In this paper, I assert that Swift’s experimentation with diverse genres significantly influences her approach to creating and performing prosodic dissonance. I also introduce my own preference rule to identify these dissonant patterns and their unique effect on listeners, contributing to her storytelling.

Swift is a prolific singer-songwriter whose discography spans a broad range of styles and a plethora of tracks. I categorize these into four broad stylistic groups, extracting musical examples from each to support my arguments. One prominent instance of prosodic dissonance is found in “Blank Space.” The well-known mishearing of the lyrics “got a long list of ex-lovers” as “all the lonely Starbucks lovers” highlights the clash between prosody and meter. This misinterpretation is attributed to the end of “list” coinciding with the metrically accented “of,” as argued by BaileyShea (2021). The phonetic transcriptions (following Salley 2011) underline the nuanced nature of prosodic dissonance in Swift’s work. A schwa’s unusual metrical placement as a different kind of dissonance that leads to commonly misunderstood lyrics in “Karma.” I present broader analyses of prosodic dissonance in stylistically distinct songs, and the influence of a pop-country style with prosody; it dissects the metrical intricacies of the chorus to “Teardrops on My Guitar” and reveals how different versions of the song produce contrasting perceptions of dissonance based on kick-snare alternations (building on de Clercq 2016).

Conversely, I consider the influence of an electropop style and shows a lyric chart (from Adams 2009) dissecting the mock-rap verse and prechorus of “...Ready For It?” Since the vocal line is still sung and has a highly regular flow, even slight vocal pauses can sound prosodically dissonant.

Finally, this paper extends Eron’s Stress Discrepancy Rule (SDR), introducing a modification to describe instances from Swift’s repertoire. My revised SDR posits that the effect of odd prosody-meter placements can be mitigated by recurring or parallel phenomenal accents (Lerdahl and Jackendoff 1983) via ascending melodic intervals. In the outros of “The Other Side of the Door” and “Cardigan,” and the prechorus to “Look What You Made Me Do,” the lyrics express a list of events that are set to recurring melodies; hence these repeated patterns and prosodic dissonance contribute to each narrative. This paper closely examines Swift’s expansive and stylistically diverse output to highlight her lyrical and melodic sensitivity. These methods can also be used to study dissonant techniques of songwriters like Olivia Rodrigo and Billie Eilish, whom Swift has influenced.

**Kate Soper’s “Voices from the Killing Jar:” an exploration of literature, art song, perception, and feminist philosophy**  
Gabrielle Choma, University of Oregon

In the provocative program notes of Kate Soper’s “Voices from the Killing Jar” (2010), she defines a killing jar as a “...tool used by entomologists to kill butterflies and other specimens without damaging their bodies.” This work features seven condemned female characters from popular fiction, confronting their unfortunate—sometimes grisly, fates. However, the teenaged May Kasahara, from Haruki Murakami’s *The Wind-Up Bird Chronicle* (1994), does not encounter such an existential danger. Rather, in “Prelude: May Kasahara,” she reflects ominously on the evil nature of time and humankind. How then, has Soper portrayed May as helpless, entombed within her metaphorical container? A temporally linear reading of this movement would create confusion about how this situation is depicted, but with a temporally non-linear perspective, one will find that May’s cruel warden is teenage girlhood itself. In my paper, I combine David Lewin’s model of perception (1986) with a reading of Simone de Beauvoir’s *The Second Sex* (1949) to illuminate how Soper has portrayed May suffering from the ailments of *becoming-womanhood*.

Specifically, I use Lewin's model to consider how perceptions of phrase structure and large form diverge into multiple observations and expectations, then become negated or confirmed throughout the piece. Furthermore, I argue that this disjunct unfolding of meaning serves as a Beauvoirian metaphor for the temporal suspension of the teenage girl. In "Lived Experience," from *The Second Sex* (1949), Beauvoir asserts that teen girls are violently thrown into adulthood during adolescence when they realize that their body is not their own, but on display for the world. Therefore, the teen girl lives "suspended" in time, trapped between the bodily freedom of her childhood, and the expectations placed upon her in adulthood.

Through non-linear storytelling, Soper portrays teenage girlhood as its own killing jar. The fragmented lyrics of the opening section: "Way down inside there's a--/Tiny and hard as--/Inside of each living--/All the way down into—" show meaning is already unfolding in a non-linear manner. The first two fragments can be erroneously, yet humorously, misheard as "Way down inside there's a tiny and hard ass." The third and fourth fragments offer clarity to this mistaken listener, providing context to the beginning, and therefore throwing the audience into a non-linear experience. However, I am not primarily concerned with lyrics in this analysis, but rather musical features such as phrase structure and large form. The musical setting alternates textures of chaos, unity and stasis, which emphasize the constant starting, stopping, and reinterpreting of the music. Starting from this example, and extending into the remainder of the movement, I will demonstrate that at the end of this movement, Soper manipulates audience expectations about phrase structure. She does this by recalling aural gestures from the B section, saturating the final A section with poignant meaning, previously unclear when assuming a temporally linear perspective. Considering how 21st century composers approach audience-music interaction provides both scholars and listeners with clarity in an otherwise widely pluralistic style.

### Quote-Type Indicator: A Typology of Musical Borrowing in Jazz Improvisation Collin Felter, University of California, Irvine

When J. Peter Burkholder proposed musical borrowing as a field of musicology, he focused primarily on a case study within his Western art music area of expertise, Charles Ives (1994). Burkholder's selected repertoire honed his discussion around a specified set of criteria, but he did address the expansion of intertextuality beyond the Western art canon and proposed some guiding questions to move towards a typology of musical borrowing in his founding text. Jazz scholarship also addresses musical borrowing in its analysis of improvisation through the discussion of quoting, but it tends to not delve into any greater categorical detail than pointing to a phrase's quotational nature (Potter, 1992). This paper marries the musical borrowing and jazz analysis communities while taking on a small part of the task set forth by Burkholder through the introduction of a musical borrowing typology localized to the idiom of jazz improvisation. The primary contribution this typology offers to the field of musical borrowing is the consideration of improvisatory intertextuality. My discussion of improvisation stems from the jazz tradition, but the typological categories can apply beyond the genre. This will in turn provide language to discuss intertextuality in all improvisational music settings, further diversify the musical borrowing field through a deeper focus on jazz, and outline more finely tuned discussion of quotation within jazz scholarship.

My typology employs an either-or criteria to create four binary categories with distinct labels for both the "on" and "of" occurrence. These four criteria are then combined to create a quote-type, sixteen of which are distinctly allotted by this typological method. The four assessments of type are (1) Autogenous/External, (2) Traditional/Divergent, (3) Familiar/Niche, and (4) Composition/Improvisation. The first criterion differs between solos originating from source material composed by the improviser or someone else. The traditional/divergent criterion distinguishes between source material of a quote that exists within the genre of an improvisation or divergent from said tradition. Familiar and niche labels refer to the expected reference that the audience has with the performed quote in my third category. The final criterion juxtaposes source material stemming from composed and improvised material. Since each of the eight labels are distinct in their starting letter, the quote-types then consist of the acronym of their four binary criteria (i.e. an ETFC quote-type is an external/traditional/familiar/composition quote wherein the source material originated from someone other than the improviser, within the tradition, recognizable to the audience, and a composed piece). Upon a detailed discussion of these criteria and quote-types, my paper then offers contributions to the extramusical meaning that these improvisational choices evoke including humor and homage. This discussion of quotational impact will highlight the applied use-value of my offered typology. I posit that this typology of musical borrowing in jazz improvisation will provide a needed layer of depth to discussion of quotation in jazz improvisation while simultaneously bolstering the field of musical borrowing.

Ted Dunbar's *Theory of Tonal Convergence* (1975) and the Emergence of Chord-Scale Theory  
Dustin Chau, University of Chicago and University of Illinois, Chicago

Ted Dunbar's *System of Tonal Convergence* (1975) is influenced by George Russell's *Lydian Chromatic Concept of Tonal Organization* (1953 [2001]). Dunbar extends Russell's theory toward *cadences* in jazz improvisation. More specifically, Dunbar's treatise seems to be the earliest written attempt to theorize the "tritone substitution" before its formalization within academic jazz institutions.

Drawing on gravitational metaphors from Russell, Dunbar conceptualizes the dominant seventh chord as a convergent zone where an improviser may use any of his twenty-four scalar substitutes to resolve towards a tonic. Important to convergent zones is the resolution of the "mysterious tritone interval" in each of his scales. I argue that Dunbar's focus on the tritone stems from his reading of Paul Hindemith's *Craft of Musical Composition*, which uses the tritone as its primary organizing principle. Not only does Dunbar quote Hindemith at length at the beginning of this treatise, but it is also cited in his bibliography in his 1976 follow-up book. Ultimately, Dunbar conceptualizes the tritone substitution as a negotiation between Russell's "chordmodes" and Hindemith's chord-group categories.

While Dan DiPiero (2023) draws a straight line between Russell's chordmodes and its full appropriation as a white-masculine technology at the Berklee School of Music, Dunbar's treatise puts pause on this claim and shows how Russell's theory had multiple avenues of reception before its complete inauguration into mainstream academic institutions. Dunbar's *System* is one such avenue, which bridges both regulative *and* speculative dimensions by weaving esoteric numerology from mid-century mystics with Russell's and Hindemith's theories.

Musical Form and Development in Peking Opera Compared with Western Music  
Bella Chen, University of Oregon

Research on Peking opera (Pian 1975, Rao 2007, Wang 2022) has focused on the historical background, Chinese aesthetics, music and philosophy, vocal training and acoustic characteristics. A few scholars have compared the structure of Peking opera with western musical form theory, while analyzing the melodies of Peking Opera according to the Chinese modal system. This presentation also compares Chinese folk music with western music theory but will focus on exploring new ways of understanding form and development through analyzing Chinese folk song. Also, I will discuss how compositional techniques express the meaning of the lyrics in the context of the Chinese modal system.

I will use Lao-Sheng Er-Huang Yuan-Ban to explore how Chinese musical language parallels several concepts in Caplin's formal theory, particularly his notion of "period." Also, I will consider the ways that the lyrics motivate the melodic development, because of the pitched nature of Chinese pronunciation and the lyric structure. Caplin's model for period and the musical form of Lao-Sheng Er-Huang Yuan-Ban, shows that the basic layout is the same, two large sections that are each divided into two smaller subsections. But there are significant differences; first, in Western music, the restatement or varied repetition mostly refers to the consistency of melodic outline, rhythm and harmony, while in Peking Opera, restatement mainly refers to the consistency of the basic tune and sub-phrase structure. Phrase 1 and Phrase 3 both have the underlying melodic progression D-A-E-C-D-E-A. Also, they have the same sub-phrase structure according to the structure of the lyrics, 3+3+4. Second, the sequence of Chinese modes hints at what lyrics cannot express. Example 1 shows that the modes of phrases 1 and 4 belong to different gong systems, which are like key relationships in the Chinese modal system. However, the modulation to G gong is based on whether the tune emphasizes B or not. The uncertain modulation seems to depict the idea that though the author wants to retire with success, he cannot escape the control of the emperor.

Rulan Chao Pian tells us "Another factor that requires consideration in setting a text is the linguistic tones of the Chinese words." I will show that whether the usual Chinese speaking tone is consistent with the melodic outline reflects the inner emotions of the protagonists. More specifically, if the tone of the words is almost consistent with the melodic outline, it means that protagonists mostly express their feelings directly. However, if the word tone is mostly inconsistent with the melody outline, it will mean that protagonists are expressing complex and deep emotions.

Peking Opera is typical Chinese folk music. It is important to analyze it from the perspective of the Chinese modal system, as well as understanding its points of contact with Western formal theory. This will help us to understand Chinese works more systematically and deeply, as well as to explore more possible varieties of musical language.

Pitch, Motive, and Non-Alignment in the Idiomatic Phrasing of Melodic Rap Verses  
Devin Guerrero, Texas Tech University

Current analyses of hip-hop vocals tend to focus on elements other than pitch and phrase.<sup>1</sup> Adams 2020 states that “nearly every definition of phrase focuses on some coordination of melody and harmony; thus, given that hip-hop normatively lacks melody and often has minimal harmonic motion, ‘phrase’ would seem to be an inapplicable construct.” However, the increasingly popular genre of melodic rap complicates this observation.<sup>2</sup> Since melodic rappers engage distinct pitches in their verses, descriptions of phrase should engage pitch. Komaniecki 2021 suggests “pitch plays an important role in the structure and delivery of rap flows.” It refers to sung verses as those performed “on a pitch or set of pitches in accordance with the tonic from the track’s backing beat.” Duinker 2021 presents five segmentation rules for defining phrase in flow. This paper introduces a sixth segmentation rule—pitch patterns—built on Komaniecki’s analysis to show how the use of distinctly pitched motives contribute to an idiomatic sense of phrase in melodic rap verses. This new rule allows for examination of grouping and displacement non-alignments of flow and beat layer based on pitch.

Melodic rap complicates traditional definitions of rapping and singing as two mutually exclusive activities. This vocalization hybrid differs from song mostly in its seemingly extemporaneous development of pitched motivic material in each verse. A Venn diagram compares rapping, singing, and melodic rapping, focusing on syllables per measure, vocalization type, syllables per pitch and the nature of motivic material.

Prototypical melodic-rap phrase structure consists of motives: four- or eight-beat figures, subphrases: two conjoined motives, and phrases: two conjoined subphrases. Motives can be diminished or augmented, thereby altering the grouping of subphrases or phrases. Reciting tones, concluding gestures, and boundary tones are three key elements of melodic rap. Reciting tones deliver most of the lyrics, concluding gestures provide motives with a descending tail, and boundary tones end a subphrase or phrase. Boundary tones are labeled continuous or sectional, denoting creation or resolution of melodic tension. While the pitches in these songs engage functional scale degrees, they are typically “divorced” from the beat layer’s harmony.

In some examples, the opening motive is shorter and, therefore, feels retrospectively diminished compared to the subsequent motives. The first subphrase ends in m. 4 with a sectional boundary tone and the second in m. 8 with a continuous boundary tone that partially outlines dominant harmony. In this example, the flow-layer and beat-layer boundaries align. The opening phrase presents two diminished motives before a 4-beat motive finishes with a concluding gesture on beat 2 of m. 2. A five-beat augmented motive and two two-beat diminished motives shift concluding gestures for the remainder of the excerpt to beat 3—though the first belongs to a diminished motive that ends on beat 1—creating a D4+1(J) displacement non-alignment. Boundary tones then alternate between sectional and continuous.

Form Regimes in American Popular Music  
Michael Dekovich, Loyola Marymount University

Various features of American popular music have morphed and diversified since the late 1800s (Everett 2004, Brackett 2016, Peres 2016). By contrast, changes in form occur in abrupt punctuations followed by long periods of relative homogeneity. Several studies offer endogenous explanations for changes in formal paradigms from technological (Gronow 1983, Brackett 2016, Barnett 2020) and aesthetic perspectives (Summach 2011 and 2012, Nobile 2022), but their scope excludes the persistence and recession of formal types.

Combining market competition analysis, popular music corpus studies, and labor history, I propose that individual attitudes and technology are only partially responsible for historical configurations of musical form and that an exogenous solution may be found in the music industry’s mode of production. I argue that the American music industry has undergone at least three form regimes during which one formal type was produced at higher volumes than all others, that each regime is delimited by the industry’s labor practices, and that abrupt changes in the division of labor account for abrupt changes in dominant formal types.

Osborn (2013) ascribes the existence of a “verse-chorus paradigm” to a consensus between artists, fans, critics, and scholars, but neglects the discontinuity of verse-chorus (VC) form’s eminence. Strophic VC form became prominent during the rise of American industrial hegemony in the 1850s (Harris 1906) but was supplanted in 1910—1965 by cyclic AABA form, which in turn was superseded by verse-chorus-bridge (VCB) form (Stephenson 2002).

I show the correspondence of prototypical forms to specific divisions of labor. Econometric data show that musical products are less qualitatively diverse during periods of high market concentration (when an industry approaches monopoly) because of barriers against competition (Peterson and Berger 1975, Rothenbuhler and Dimmick 1982). At the same time, the music industry, as the sole buyer of musical labor, exerts tremendous pressure upon artists to produce standardized songs as commodities rationalized to reduce uncertainty (Rayna and Striukova 2009). Thus, the persistence of a form regime is linked to its associated oligopoly.

During economic crises, only firms that revolutionize their productive means can survive, either by vertical integration (as in the Taylorist and Fordist models) or by sourcing labor at arm's length (as in post-Fordism) (Suisman 2009). Changes in the organization of musical labor necessitate revolutions in musical form. For example, the shift to recordings as the primary unit of distribution in the 1940s required intensification of discursive organization (involving the interspersing of large formal units), sonic design, and new media to differentiate products from the previous regime (Manuel 1985, Middleton 1990). This pattern accounts for abrupt shifts in form regimes and subsequent stabilization as markets reconcentrate (Alexander 1996).

The concept of form regimes highlights the relationship between the music industry and musical practice. Without understanding these mechanisms, the emergence of musical phenomena appears as happenstance, divorced from the socio-economic forces that create them. Through this perspective, assumptions such as Osborn's verse-chorus paradigm gain a new dimension as they are situated into a wider historical-aesthetic analysis.

### Rage Against the Machine: Narratives of Resistance and Struggle in "Widerstehe doch der Sünde," BWV 54/i

Owen Belcher, , UMKC Conservatory

Despite J.S. Bach's preeminence, a central subset of his oeuvre—the cantatas—remain little-studied among Anglo-American music theorists, while much German language scholarship has historically been dominated by conservative Lutheran interpretations (Lloyd 2007). As a step towards addressing this lacuna, the present study offers a narrative analysis of a particularly unusual aria from the cantata, *Widerstehe doch der Sünde*, BWV 54 (c. 1711-1715). The text of the eponymous opening aria, written by Georg Christian Lehmann, instructs listeners to resist sin. The aria is harmonically and formally exceptional even amongst the Weimar cantatas (Crist 1988)—a fact frequently acknowledged but rarely explored in detail in the existing critical surveys of Bach's cantata corpus which, for reasons of methodology or space, focus almost exclusively on text-painting and large-scale form (for instance Dürr 2006, Geck 2000, Petzolt 2004, but see Chafe 1991 and 2000). Yet scholars' often contradictory assertions of madrigalisms are insufficiently flexible to account for either the aria's formal processes or the spirit of the work, which emphasizes activity, struggle, and resistance (*Widerstand*).

The opening ritornello with annotations shows grating initial sonority—a dominant seventh over a tonic pedal, figured 7/5/4/2—that recurs throughout, obscuring the standard ritornello partitions (*Vordersatz*, *Fortspinnung*, *Epilog*). Instead, one is left with four motivic modules, w-z, of which only z exhibits clear function (as the cadential *Epilog*). The opening module, w, tonicizes the subdominant rather than emphasizing tonic and dominant, while the second module, x, sounds like a restart of w rather than the expected *Fortspinnung*. Module y belatedly achieves the dominant, but the dissonant opening sonority recurs transposed. The *Epilog*'s double authentic cadence thus sounds compensatory, as if making up for the opening's lack of clarity. Adapting Dreyfus's (1997) metaphor of the ritornello as an idea machine, I demonstrate how the ritornello's peculiarities permeate the aria (diagrammed in Example 2), resulting in a broken machine whose components (the individual instruments) struggle to resist the allure of harmonic, formal, and stylistic convention as the singer instructs us to resist the temptation of sin.

Formally, the first part of the da capo aria presents three successive vocal episodes without intervening ritornello—a pattern unique among the Weimar arias (Crist 1988). Harmonically, the aria's second part repeatedly resists cadential closure, as shown in Example 3a and b. Stylistically, the lower parts seem to even reject their identity as stringed instruments, with Christoph Wolff (2000, 133) observing that texture is more reminiscent of organ music. Meanwhile, the alto must struggle through extended melismas and melodic leaps which cross the break from chest to head voice.

I conclude by exploring a central problem: How can musical narratives of Baroque compositions account for the static forms and consistent *Affekte* characteristic of the repertoire? I demonstrate one solution by invoking Monahan's (2013, 334) hierarchy of agential classes, arguing that BWV 54's central recitative continues the opening aria's struggle against stability and closure, but at a higher hierarchical level—that of the work persona.

**Mahler's Hybridity Processes: Referential Interplay and Autonomous Themes in the Third Symphony**  
Gabiella Vici, University of Toronto

Musical hybridity—the combination of incongruous signifying components in a musical work (such as allusions, topics, genres and styles)—is most often associated with late-twentieth-century compositional practices. Bruno Alcalde's (2017, 2022) theorization of hybridity generalizes more specific techniques (collage, mash-up and polystylism, especially), allowing for its widespread application to musical works from any era or aesthetic movement. Among these possibilities are the symphonies of Gustav Mahler, where an intrinsic heterogeneity is frequently observed but remains theoretically underexplored.

In this paper I analyze the first movement of the Third Symphony by combining Alcalde's work with theories by Robert Hatten (2014), Theodor Adorno ([1960] 1992), and Seth Monahan (2015), into one multivalent method. I argue that heterogeneity lies at the core of this colossal movement, at the intersection between its individualistic themes, highly deformational sonata structure, vivid program and the topical allusions used to express it. Alcalde's theoretical framework comprises four dynamic hybridity processes, of which "clash" and "coexistence" are especially relevant. Since genre in Mahler often invokes the exaggeration or distortion of topics, I supplement Alcalde's strategies with topic theory, particularly Hatten's concept of "troping." Complementing this pair of techniques is the theoretical repurposing of Adorno's "functional characters" into a construct for understanding how hybridity plays out on the thematic level. Lastly, I invoke Monahan's formal analysis to frame the relationship between hybridity and the movement's sonata form, and consider how surface-level heterogeneity permeates the movement's deepest structures.

By incorporating these techniques into the one theoretical approach, I develop the idea of a fixed referential space and an Adornian theory of hybridity. The treatment of themes as novelistic characters aids in the comprehensive interpretation of passages where extremely differentiated material owes its heterogeneity to the conflict between evolving voices rather than panel-like sections. Since varying signifiers tend to come in and out of focus while themes retain their core identity, I consider Adornian thematic characters as executing agency within a fixed referential space: a network defined by various hybridity relationships. Here, the movement's referential entities are connected either by coexistence (solid lines), troping (dashed lines) or programmatic associations (dotted lines); direct interplay between unconnected boxes results in clash.

I then apply this fixed referential space to the recapitulation—the most extensive hybridity episode—alongside Monahan's analysis, to explicate the movement's hybridity processes and their entanglement with its deformational sonata form. Focusing on the referential mobility of one pervasive theme ("Pan"), I show how motivic movement throughout the referential network creates mixture environments that both complement and capsize sonata-form norms, in the over-amplification of its rotationalism and dualistic tendencies. As this results in the destabilization of formal expectations, internal formal structures are instead determined by the interaction of thematic characters in episodic, patterned waves of hybridity. I conclude that hybridity—as understood through the fixed referential space—provides a comprehensive theoretical lens through which to interpret heterogeneity in Mahler's works, here illuminating analytical pathways between characteristic surface variegation, referentially-coded thematic development and a deeply unsettled sonata form.

**Facing It: Rupture and Trauma in Two Tape Compositions by Else Marie Pade**  
Laurel Parsons, University of British Columbia

In recent years musicologists and sound studies scholars have explored relations between music and war trauma (Cizmic 2011, Wlodarski 2015, Rogers 2021, Daughtry 2015), and music theorists have applied principles of trauma theory to the analysis of music (Reyland 2018, Ware 2020). In this presentation, I examine two tape compositions by Else Marie Pade (1924–2016), Denmark's first composer of musique concrète, arguing that their interruptive structural designs can be viewed as responses to the trauma she experienced during WWII.

In *Symphonie magnétophonique* (1958), Pade layered and manipulated recorded sounds to create a 19-minute evocation of a single day in Copenhagen. But just after the 15-minute mark, the banality of an ordinary day is shattered by the sounds of an exploding bomb, the marching of heavy boots, a woman screaming, and the sirens of emergency vehicles. As a teenaged member of an all-female Danish Resistance group, Pade had been captured and imprisoned by the Gestapo for the last eight months of the war. She denied that these sounds represented her

wartime memories (Goetz 2006), but for the unprepared listener the effect is disruptive and disturbing.

Twelve years later, she did explicitly address the past trauma of WWII—and the lingering threat of fascism’s return—in *Se det i øjnene*, henceforth referred to by its English title *Face It* (1970). Unlike *Symphonic magnétophonique*, *Face It* features only three streams of sound. Against a steady drumbeat, a narrator intones, “Vi må se i øjnene: Hitler er ikke død” (“We must see with our eyes: Hitler is not dead”), the second phrase looped or fragmented throughout the piece. The third stream consists at first of sound bursts too short to be intelligible, but as they gradually lengthen we realize that we are hearing the voice of Hitler himself (specifically, his nationally broadcast July 13, 1934 speech to the Reichstag following the Night of the Long Knives). The two voice streams compete, alternating with increasing rapidity until the final 40 seconds of the piece, when Hitler’s voice ultimately prevails. The piece closes with a chilling new sound: the roar of the crowd shouting “Heil!”

Analysis of these two compositions will show how their interruptive structures instantiate certain processes identified in the trauma studies literature, including distantiation (the framing of a musical event in a way that places it at some remove from direct experience); latency (the hidden presence of a musical event or characteristic); and emergence (the sudden eruption or gradual revelation of a previously latent musical event). I further adapt for analytical purposes the term “sonic artefact,” coined by Marshall to describe moments of eruptive expressivity in her interviews with female electroacoustic composers. These concepts open new possibilities for understanding certain postwar European compositions as truly post-war, created by humans who had lived not just after, but through the collective social trauma of WWII.

### Originality in Recycled Licks, and the Ontology and Ownership of Rock and Metal Guitar Solos Stephen Hudson, Occidental College

In the 1990s, Robert Walser’s award-winning scholarship established heavy metal guitar solos as an important subject of musical analysis. Three decades later, hardly any subsequent analyses have been published, and many fundamental questions about solos remain unanswered: What is a solo’s musical form? What makes two performances “the same” or “not the same” solo? How can one describe a solo’s authorship or originality within a tradition driven by imitation and appropriation? Edward Van Halen’s (EVH’s) show-stopping virtuosic set piece “Eruption,” dramatizes these issues: it was never played the same way twice, and it always featured interpolations from other composers. This paper answers the above questions by presenting a theory of form and ontology for rock guitar solos, drawing on guitarists’ instructional books and interviews.

Walser compares “Eruption” to classical constructions of virtuosity, but misses the solo’s most virtuosic dimension: “Eruption” was a vehicle for improvisation, and no passage was ever note-for-note the same from night to night. However, five key licks always occurred in the same order. These key licks are clearly recognizable despite substantial variation; for example, in the band’s legendary 1983 US Fest appearance, the opening gambit took eight times longer than the album version. The five key licks form a musical “frame” which “invites us to treat the cultural product as a recurrent locus of meaning” (Kramer 2011, 247): when the key licks are absent, EVH’s solo is not “Eruption.” Between these key licks, EVH mixes free improvisation with a repertoire of other recurring licks—including flourishes from his band’s other hits, and call-and-response games that wouldn’t fit a studio recording format.

Licks are the “primary level” (Zbikowski 2002) category in guitarists’ discourse: a solo is usually described as a series of licks, and its large-scale form is rarely mentioned (ex. Bloomfield et al, 1973; Rotfeld and Hammett 1997). But licks are a problematic locus for originality and ownership, since they are often understood as allusions or appropriations from other artists. Some have claimed that these moments of imitation or re-use demonstrate an artist’s own artistic identity and originality (ex. Rotfeld and Hammett 1997). I briefly explain this seeming paradox through cognitive science theories of “alignable similarities” (Gentner 1987), which demonstrate how certain kinds of similarities can invite analogical comparison, making relatively small differences more salient. I demonstrate this through an analysis of EVH passages which (following Walser) can be heard as reminiscences of Chuck Berry.

Given that rock musicians hear guitar solos as both original compositions and as patchwork palimpsests that trope previous generations of virtuosos (Walser 1993), ownership of guitar solos is thus always partly collective. Despite heavy metal’s appropriation of Romantic virtuoso rhetoric, guitar solos are not clearly (or not only) “works” of individual creative expression—they are also instantiations of an ever-evolving communal composition consisting of a genre-wide repertoire of techniques and licks, a “distributed object” that is the product of “relayed creativity” (Born 2005).

### Theorizing Notation: Darmstadt, 1959–1965

Isaac Otto, University of California, Irvine

Of the many innovations that characterized modernist composition in the 1950s and '60s, arguably the most radical break from tradition came in the form of a panoply of new (frequently glossed as “graphic”) music notations. Exemplified early on by works from both American (Cage, Brown, Feldman) and European (Bussotti, Kagel) schools, these new techniques were used not only to encode unconventional instrumental gestures, but crucially to bring about new modes of indeterminate, improvisatory, or otherwise “open” play.

Owing to the many contexts in which it has historically been deployed, notation even in its most traditional form has resisted attempts to holistically theorize its use and function. Therefore, these manifold “neo-notations” only complicated matters, raising new (and lending urgency to old) questions as to notation’s role in literate music-making. For instance:

- Are we to take the score as a serious representation of an idealized performance or strictly as a set of instructions meant to instantiate a musical work?
- Does this change when notation no longer “represents” sound in any relevant sense, instead coding for particular embodied actions?
- Must a notation provide such coded instructions at all?
- Or, on the other hand, might we recognize any inscription as a form of notation so long as it may, in some sense, be meaningfully interpreted such that it yields sound?
- Taken whole, is the observed distinction between these “old” and “new” notations one of kind or merely of degree?

Perhaps predictably, composer-scholars who had encountered these developments first-hand leapt at the chance to take on these thorny new problems. Of particular note are two works penned at the height of the furor: Karlheinz Stockhausen’s lecture series „Musik und Graphik: Kommentare zu neuen Partituren“ and György Ligeti’s paper „Neue Notation –Kommunikationsmittel oder Selbstweck?“, both presented at Darmstadt in 1959 and 1965, respectively.

Despite belonging to similarly-motivated schools of European modernist composition, the two offer fascinatingly distinct takes on notation’s changing form and function. However, while the former received welcome exegesis in David Gutkin’s 2012 paper “Drastic or Plastic [...],” Ligeti’s paper has gone woefully un-cited considering its incisiveness and continuing relevance, 60-plus years on, to now-common techniques among contemporary composers worldwide.

Thus, this paper seeks to (1) draw particular attention to Ligeti’s heretofore unacknowledged scholarship in order to (2) critically contrast two composers’ efforts to make sense of these new “graphic” notations—disentangling acts of composition from their accessory visual codes. This will require comparing and appraising the typological structures (implicit or explicit) through which each composer conceives of music’s inscription, as well as the extent to which, for each, the graphic may be meaningfully emancipated from the acoustic.

In the end, I argue that Ligeti’s analysis reframes and significantly refines Stockhausen’s, presenting a structure which obtains across both historical and contemporary music inscription. Further, I argue that once adequately formalized, Ligeti’s well-articulated graphic/notation and connotative/denotative distinctions have the potential to serve as the foundation for a robust, holistic “theory of notation(s)” more generally.

### Instrumentation, Physical Space, and Musical Form in Multipercussion Music

Madeleine Howey, University of Indiana

With minor exceptions, the physical space created by most types of instruments remains functionally unchanged from one instrument to the next. A skilled performer can transition between two of the same kind of instrument relatively quickly, with only minimal adjustments to things like hand position or embouchure. Percussion instruments, however, are subject to more than the usual amount of variation. Most drums and cymbals are available with many different diameters, and composers often include nontraditional instruments (such as lengths of copper pipe or, even more generically, “resonant metals”) in their percussion scores.

Multipercussion works, in which a single performer plays several instruments that function collectively as a larger, multi-part “instrument,” present additional considerations. Each instrument has to be considered for its own aural

and physical characteristics (like size and ability to be positioned at different heights and angles) and for how well it will work with the other instruments in the multipercussion setup. In this paper, I show how performers use this flexibility to highlight different elements of musical form in two compositions: Kevin Volans's *She Who Sleeps with a Small Blanket* (1985) and David Lang's *The Anvil Chorus* (1991).

My work includes comparative analyses conducted across multiple performances of each piece. This approach is partly based on the work of Ben Duinker (2021), who combines Sharon Kanach's concept of "negotiating" musical passages with Nicholas Cook's structural affordances in his analysis of the structural importance of elements like accents and drum tuning across multiple recordings of Iannis Xenakis's *Rebonds*. In this paper, I emphasize elements such as sticking patterns (what mallets are used to play what notes), instrument placement, and the mallets and instruments chosen by different performers. I reference video recordings to accurately track these.

Japanese composer Maki Ishii frequently composed within a "space-time" framework. His pieces have a flexible approach to tempo where the physical space navigated by the performer necessarily influences the resulting musical time. Percussionist Mark Berry (2009) demonstrates this concept by outlining the physical benefits and drawbacks of three different arrangements of the instruments required for Ishii's percussion solo *Thirteen Drums*. I similarly compare several setups of *She Who Sleeps with a Small Blanket*. Although this piece is written for a fixed setup, meaning that most of the decisions regarding instrumentation are made by the composer, performers occasionally choose to break the "rules" established by the score. I will both demonstrate the physical and musical advantages to making these changes and show their impact on the work's contrapuntal structure.

*The Anvil Chorus* presents a different sort of challenge: because it is scored for generic instruments (resonant and non-resonant metals) instead of specific ones, the percussionist has an above-average degree of control over instrumentation. My analysis shows how the tuning and timbre of the instruments a performer selects affect the musical lines they produce. I conclude that decisions like those outlined above are not only essential logistical problems for percussionists to solve, but also create opportunities for innovative approaches to multipercussion compositions.