# MTSNYS 50<sup>th</sup> Annual Meeting
## June 15 – September 15, 2021

# ABSTRACTS

**KEYNOTE: The Unionist Hero and The Capitalist Anti-Hero: Alan Menken's Collectivist Fantasy and Harold Rome's Entrepreneurial Satire**
Michael Buchler, Florida State University

I will tell a tale of two Broadway musicals: Alan Menken's, Jack Feldman's, and Harvey Fierstein's staged musical, *Newsies* (2012, based upon the 1992 Disney film) and Harold Rome's and Jerome Weidman's *I Can Get It For You Wholesale* (1962, loosely based upon Weidman's 1937 novel). *Newsies* is a feel-good heroic fairy tale in which collectivism triumphs over big business; *Wholesale* is a dark comedy where an entrepreneurial anti-hero callously breaks a union of his peers in order to foster (what he imagines will be) his own success. I will consider the musical and dramatic structures of each show, demonstrating examples of how their respective political worldviews are characterized in song to portray two very different battles between capitalism and collectivism.

**WORKSHOP: "Teaching Musicianship in a Pandemic: What I've Learned, What I'm Keeping, and What I Hope Never Happens Again."**
Jennifer Snodgrass, Appalachian State University

Over the course of the pandemic, instructors of music theory have experienced a dramatic shift in their instructional strategies, student learning assessments, and how they keep students engaged on a daily basis. It is impossible to narrow down these experiences into an overview that represents the whole, as each instructor faced challenges unique to them. However, there are transformational takeaways resulting from the online teaching experience that we will want to keep moving forward.

From applications such as Goodnotes, Padlet, PlayPosit and Hypothesis to new methods of assessment using Google Forms, podcasts, and Flipgrid, those of us teaching online musicianship courses have found ways to innovate. Most of our students embraced some of these new approaches. We in turn, learned alongside our colleagues, sharing tips and tools with each other. But what did we mourn when it comes to the musical experience in our classroom? What did our students miss when we had to shift to online learning? Through interactive conversation, polling, and small group discussion, this workshop will provide an environment for us to share what we learned, what was missing, what we will continue to use, and most importantly, how this experience has influenced our teaching philosophies and pedagogical approaches.

**Blurred Boundaries: Traumatic Association and Thematic Disassociation in Nobuo Uematsu's *Final Fantasy* Soundtracks**

Richard Anatone, Prince George's Community College

Trauma and memory error are both crucial in developing narrative within the *Final Fantasy* series. The Eastern *Kishōtenketsu* approach to story-telling helps to slowly reveal the protagonists' motivations and backstories, which are often rooted in memory-altering traumatic experiences (Kowert 2020). Indeed, many of the stories involve characters who experience memory error and a crisis of identity due to traumatic events from their past (Kelly 2020; Hughes and Orme 2020). Unsurprisingly, Nobuo Uematsu's leitmotivic scoring highlights these experiences by blurring the rhetorical boundaries among character themes, main themes, and idée fixes. This results in a form of *thematic disassociation*, which bears significant—and often unaddressed— interpretive questions regarding the symbolism between the game's narrative and its soundtrack.

Here, I identify five compositional techniques that provoke such thematic disassociation, all of which are present in Uematsu's leitmotivic *Final Fantasy* soundtracks: eponymous omission, associative troping, motivic networking, thematic hybridization, and the double idée fixe. Pairing each technique with different *Final Fantasy* titles, I demonstrate how obfuscating musical identity may lead to a stronger understanding of the game's central theme by inviting more hermeneutic analyses of the musico-ludic structure (Bribitzer-Stull 2015). Uematsu's careful manipulation of these important associative themes helps depict the psychological trauma that protagonists experience while simultaneously revealing the story's true underlying narrative slowly over the game-long trajectory (Phillips 2014). Ultimately, these dissociative techniques allow players to experience large-scale cinematic and musical tropes that elevate the discourse of the game's narrative to higher expressive dramatic planes (Hatten 1994).

**From "Maira" to Chen Yi's "Mayila": Socialist Influences on Contemporary Chinese Composers**

Hon Ki Cheung, University of Minnesota

Leftist and Communist Chinese composers since the early twentieth century have made use of vernacular and folk music to spread political ideologies. Many folk songs that are the most well known in Chinese-speaking regions are in fact revised or even recomposed by Han Chinese and are transmitted through the publication of anthologies. In this paper, using close reading and musical analysis, I study how Chen Yi, Bright Sheng, and Zhou Long use anthologized folk songs from the ethnic minority regions in their folk song arrangements, and I argue that their folk musical influences may come more from their conservatory training rather than the indigenous culture. For example, Chen and Sheng both used special techniques to address the unspecified microtonal variant of a scale degree in a Yunnan folk song "Cai diao" seen in anthologies in order to depict the prescribed regional flavor. Multiple movements by Zhou also preserves the regional melodic embellishments prescribed in the anthologies. The Kazakh tune "Maira," which its sinicized version "Mayila" by Wang Luobin (1913–1986), is widely popularized and has been arranged by Ding Shande (1911–1995) for voice and piano. Chen Yi's arrangement of the tune

shows direct citation from Ding's version using the same figurations, texture, and harmonic framework. All these examples show evidence of the socialist influences on contemporary Chinese composers, and we need to thoughtfully negotiate the meaning when composers quote Chinese traditional and folk cultures in the contemporary musical context.

**Revisiting the Sound-Box in a Headphoned World**
Ben Duinker, University of Toronto

This paper explores how the spatial placement of sound in a mix—its location in the *sound-box* (Moore 2001)—relates to structural and narrative aspects of popular music. The sound-box concept has been used to map stylistic changes over time (Dockwray and Moore 2010), surreal aspects of perception (Brøvig-Hanssen and Danielsen 2013), and gender representation in vocals (Duguay 2020). Building on this scholarship, I explore how sound-box spatialization contributes to our understanding of a song's structural fabric, narrative arc, and genre codes.

I analyze several recent songs from disparate genres to demonstrate how the spatialization of sounds—both static (remaining constant) and dynamic (changing throughout its duration)—can play an important role in the structural and narrative fabric of a song. In "Uja" (2014), Tanya Tagaq evokes the tradition of *katajjaq* (Inuit throat singing) through the hard left-and-right panning of her hocketing vocals. A shifting spatial relationship characterizes Björk's voice against the backing vocals in "Where is the Line" (2004). In "The Wilhelm Scream" (2010), James Blake's hard-panned vocals are eventually suffocated by the expanding spatial presence of the instruments. And finally, Justin Vernon's multitracked vocals in "Woods" (Bon Iver, 2009) invoke Spicer's (2004) notion of accumulative form.

The COVID-19 pandemic has accelerated an already rapid trend toward increased headphone usage. As more music is consumed this way, and as audio mixes grow more sophisticated, the consideration of sound spatialization assumes greater importance in popular music analysis than perhaps ever before.

**Percy Goetschius and "Revolutionary" American Music Theory**
Eric Elder, Brandeis University

A notable gap exists in the history of Western music theory. From the standard telling, one would conclude that nothing of interest happened between the publication of Hugo Riemann's *Vereinfachte Harmonielehre* (1893) and Felix Salzer's *Structural Hearing* (1952). As Robert Wason put it, "theory in America at the turn of the twentieth century … was a melange of stultified ideas drawn from the principal European works of the genre" (2002, 66). When music-theoretical activity resumed, its hub was the United States, and the followers of two revolutionary musical thinkers—Heinrich Schenker and Arnold Schoenberg—led the way.

However, this reading of the history ignores subtle shifts that paved the way for Viennese influence, including evolving thought from America's most prolific theorist, Percy Goetschius (1853–1943). Study of substantial revisions to *The Theory and Practice of Tone Relations* (1892, rev. 1917) and *Exercises in Melody Writing* (1900, rev. 1923) reveals Goetschius's gradual departure from Riemannian thought and his increased focus on melody as the basis of composition. Along with his growing recognition of a quasi-organic agency in music—particularly melody—these developments presage Schenker's broad acceptance. Further, Goetschius's treatment of related key areas and his analytical and pedagogical approaches to small- and large-scale musical forms directly prefigure Schoenberg's American composition manuals. In conclusion, I suggest that the positioning of Schenker and Schoenberg as revolutionary figures was as much a product of devoted torchbearers continuing old Viennese polemics as it was of their "radical" theories.

**The Recapitulation as Site of Formal Tension in Hindemith's Wind Sonatas**
Rachel Gain, University of North Texas

In this paper, I demonstrate that the first movements of Paul Hindemith's sonatas for flute, clarinet, trumpet, and trombone with piano share an underlying formal narrative which is in dialogue with traditional sonata form. In these forms, Hindemith relocates the large-scale tension typically produced in the exposition to the recapitulation and shifts its resolution beyond the bounds of sonata space.

These movements' expositions do not produce large-scale tension through tonic-dominant polarization nor reach an EEC. Instead, Hindemith substitutes sonata form's characteristic expositional tension for analogous recapitulatory tension, induced through deformations to the primary theme's return. The deformations disturb the primary theme's tonality, presentation, or stability using avoidance of the tonic, transposition, fragmentation, developmental figurations, omission of thematic material, concealment of tonic returns, or false or abandoned recapitulations.

As this formal tension is evoked so late in the unfolding of the movement, its resolution frequently occurs outside of sonata space, in the coda or an upcoming movement. Resolutions address each movement's specific deformations using bespoke compositional solutions, producing the distinctive formal designs for which this repertoire is known. Hindemith utilizes two main resolution strategies: reversing the order of themes to end with the originally disrupted primary theme in the tonic key and composing codas and additional movements that recapitulate tonic key primary theme material. Additionally, these resolutions serve a secondary purpose of supplying a final cadence in the tonic, as Hindemith's secondary and closing themes are often not recapitulated in the tonic and thus do not organically reach a tonic ESC.

**Composerly Virtuosity in J. K. Randall's *Lyric Variations for Violin and Computer* (1968)**
Scott Gleason, Columbia University

The central irony of J. K. Randall's *Lyric Variations for Violin and Computer (*1968) lies in the contrast between its studied brilliance and surface naiveté. The violin writing is not particularly virtuosic, nor are the computer-generated sounds particularly stunning. Nevertheless, I will argue, the piece expresses a composerly virtuosity by incorporating the body, listening, performance, and electronic computation in its movement and that such techniques of extending the human sensorium constitute memory and thus musical temporality.

Drawing on archival research, I show how Randall edited violinist Paul Zukofsky's multiple takes into a single performance. I discuss how the piece mediates audience listening via tape-recording and loudspeakers, and the violin's performance via the computer which Randall used to specify dimensions of the musical event including vibrato, tremolo, reverberation, and waveform transformation. I argue that Randall's techniques of music-theoretical saturation require a conception of composition as virtuosic acts of coordinating sounds, technologies (music-theoretical and mechanical), and of listening and memory. The piece therefore broadens techniques of virtuosity beyond the violin and the ear to the computer and its manipulation.

Because Randall composed his piece while serving as composition professor at Princeton with a cadre of technologically-advanced musical thinkers, I close the talk by discussing how the Cold War institution of the research university enabled these extensions of the musically human. My theoretical framework is Bernard Stiegler's conceptualization of knowledge as always already technological, a move which places computer pieces such as Randall's at the mid-century forefront of reconceptualizations of time.

**Contextualizing Triadic Post-Tonality in Three Preludes from Dmitri Shostakovich's *24 Preludes and Fugues*, Op. 87**
Trevor Hofelich, Florida State University

The majority of Shostakovich studies has privileged analytical investigations of his symphonies and chamber works, but not works for solo piano. The Op. 87 preludes exhibit structural and harmonic tendencies similar to his larger works while demonstrating meta-compositional musing on Baroque preludes. This reflection often takes place through a triadic post-tonal lens that distorts structural direction in favor of expansion. I situate Preludes 4, 13, and 22 in linear frameworks and engage with motivic threads between them.

In Preludes 4 and 13, I illustrate how linear descents occur in multiple dimensions. Octave descents in each cycle of Prelude 4 resemble those in preludes from Bach's *WTC*, Book I, reflecting pathways based on the rule of the octave. The composing-out of a descending fourth in triadic post-tonal contexts with the coupling of  throughout, however, produces a static *Urlinie*. A melodic descending fourth generates harmonic content in Prelude 13. While parsimonious voice leading might be explored in mm. 44–47 of the coda, this passage is better considered the

result of motivic nesting, where a diatonic tetrachord is chromatically embellished in an inner voice.

Like Prelude 4, the structural immobilization of Prelude 22 results from large-scale melodic inactivity. An inert  is prolonged throughout, overriding the direction generated by chromatic meandering in the foreground. Recurring neighboring motions and their chromatic intensifications, combined with the static middleground, contribute to a petrified musical exterior.

This paper explores how Shostakovich's synthesis of orthodox compositional practice and triadic post-tonality engages with structural hearing.

**"The End is Here": Queer Temporality Sounding through Form in Recent Indie Rock**
Rachel Hottle, McGill University

While the COVID pandemic has shifted society's approaches to time-keeping and time passage, LGBTQ+ individuals have always inhabited a temporal sphere that problematizes the bourgeois assumptions of longevity, reproduction, and family life—what queer theorists have referred to as queer temporality (Grosz 2004, Halberstam 2005, Munoz 2009). I interpret the interaction of form and lyrical content in two recent indie rock singles—Phoebe Bridgers' "I Know the End" and Lucy Dacus' "Night Shift"—as sounding this queer temporality. Both songs exhibit the formal type that Osborn identifies as the expressively-partitioned independent conclusion, in which a song ends with "completely new material designed to be more memorable than anything previously presented" (2010).

Dacus and Bridgers both ask, "What does it mean to be stuck in grief?" While Dacus' grief is of a personal sort—she mourns the loss of a relationship—Bridger's is a more generational type, as she grieves for the loss of both her own innocence and her generation's belief in the American Dream. Both artists carve out new temporal spaces for themselves, both lyrically and sonically. In refusing to adhere to the temporal logic set forth by the rest of the song—as well as that dictated by society—they envision new utopian possibilities, strongly evoking queer futurity.

**Experimental Music's Critiques of Triadic Theory**
Noah Kahrs, Eastman School of Music

(Psycho)acoustic justifications of triads are commonplace: one often hears that the major triad comes from the naturally resonating overtone series, and is consonant because the ear prefers such harmonic sounds. These (psycho)acoustic mechanisms, however, are not unique to tonal music. This paper discusses two pieces of experimental music— Alvin Lucier's *Exploration of the House* and Maryanne Amacher's "Chorale"— that combine tonal progressions with electronic activations of (psycho)acoustics: in separating the triad from mechanisms that ostensibly generate it, they provide evidence against the triad's natural consonance.

Lucier's *Exploration* falsifies Rameau's resonance theory. Rameau argued that any vibrating object, when struck, resonates with the harmonic series. Lucier's vibrating object here is a performance hall, as articulated by repeated recording-and-playback of an orchestra playing Beethoven. Lucier's resonance turns Beethoven's triads into an inharmonic cluster, inverting Rameau's claim that resonance makes any noise a triad.

Although Amacher revered Helmholtz's work, her "Chorale" counters his triadic usage of combination tones. Helmholtz claimed that the major triad was uniquely consonant because its upper partials' combination tones reinforced its root. But Amacher generates a tonal bassline from combination tones of quarter-tones bearing dissonant relationships to their apparent root.

Both pieces demonstrate that (psycho)acoustic mechanisms ostensibly generating the triad's consonance can just as easily justify dissonances, undermining arguments for the triad's naturalness. Experimental and electronic music can be analyzed as music-theoretical discourse, arguing against treatments of the triad as universal.


**"It's only a play": Stephen Sondheim's Broadwayization of *The Frogs* (1974)**
Jordan Lenchitz, Florida State University

"The time is the present. The place is Ancient Greece." Thus opens Stephen Sondheim's musicalization of Aristophanes' 405 BC play, *The Frogs*, premiered in 1974 in and around a Yale swimming pool. Matt Wolf (2014) simply called it "Sondheim esoterica," but the composer himself (2010) wrote that it presented "a chance to…use a chorus a cappella to make sound effects, to write massed choral music, and to indulge in vulgarity, adolescent humor and moral preachment" that commercial productions seldom (if ever) provided. Unsurprisingly, Sondheim's revision of *The Frogs* for a 2004 Broadway production simplified or excised much of the music that he deemed better suited for "the Groves of Academe" than for Lincoln Center. A comparative study of the 1974 and 2004 scores for *The Frogs* accordingly presents a rare opportunity to study musical decisions made both with and "without fear of letting down investors or being criticized for 'cerebral' songwriting." Sondheim's Broadwayization of *The Frogs* sheds light on his boundaries between commercial acceptability and "academically" experimental musical-theater composition because he demonstrates a consistently clear (albeit implicit) sense of what was needed to turn what was essentially a play with incidental choral music into a Broadway musical. By considering the musical subtractions, additions, and recontextualizations present in the 2004 score of *The Frogs*, I paint a portrait of this unique three-decade-spanning intersection of the Sondheim we know from his contemporaneous commercial successes with a Sondheim less heard—a Classical Sondheim, in both the musical and Aristophanic senses of the word.

**Hexachord-Invariant Counterpoint in the Vocal Music of William Byrd**
Megan Long, Oberlin College

William Byrd was an unusually creative contrapuntist: he is known for his virtuosic double counterpoint, his expressive manipulation of *soggetti* (imitative subjects), his capacity for exhausting possible contrapuntal combinations in stretto passages, and his points of imitation that build toward an expressive climax (what Joseph Kerman has described as Byrd's "cumulative" imitation). This paper addresses a cumulative technique that has not previously been identified: hexachord-invariant counterpoint. Byrd often develops points of imitation where the *soggetto* is solmized identically in two hexachords (what Zarlino called *fuga*, in contrast to *imitazione*). But Byrd frequently builds points toward an extra statement of the *soggetto* in a new, bonus hexachord; this transposition introduces a new semitone foreign to the work's local tonality. Byrd thematizes hexachord invariance throughout his vocal repertoire, particularly in his serious motets.

This paper introduces hexachord-invariant counterpoint (HIC), and shows how Byrd combines HIC with tonal answers, subject-countersubject complexes, diatonic imitation, and contour imitation to achieve specific expressive and tonal goals. The paper further considers the implications of HIC for tonal structure in Byrd's music. HIC makes visible the constraints and affordances of Byrd's tonal system, the Guidonian diatonic gamut under hexachordal solmization. Byrd carefully controlled the tonal compass of his works by using HIC, among other strategies, to manipulate his counterpoint's "chromatic" ambit. Hexachord-invariant counterpoint—which Renaissance musicians would have understood as a diatonic, not chromatic, strategy—encompasses Byrd's contrapuntal, expressive, and tonal compositional techniques.

**"Something Else is Possible": Transcultural Collaboration as Anti-Apartheid Activism in the Music of Juluka**
Caleb Mutch, Max Planck Institute for Empirical Aesthetics

It was the early years of the 1980s, and the South African band Juluka was on the wrong side of the law. Their music was banned from the airwaves, so they had to tour to gain audiences. Yet touring was no simple prospect: they were restricted from performing in public venues, and travel to outlying South African townships for performances was restricted. When in rural areas they could finish about eighty percent of their performances without hindrance, but the other twenty percent saw the police using dogs and tear gas, and even bursting onto the stage carrying shotguns to declare the show over. How did Juluka run afoul of what they called "the wrong arm of the law"? They did so by presenting a potent challenge to apartheid ideology, not only through their interracial membership, but also by creating music whose artistic richness belies the principles of cultural segregation which the regime sought to uphold. Yet despite one of the band's founders calling explicit attention to their blending of English lyrics and Western melodies with Zulu musical structures, scholarly treatments of these blendings have been superficial and dismissive. By contrast, this presentation closely analyzes two songs by Juluka to reveal the depth of the interplay of Western- and Zulu-symbolizing elements in parameters such

as form, harmonic patterns, and meter.  Through these analyses this presentation demonstrates how Juluka creatively fashioned a musical world where the two cultures flourishingly coexist.


**Mixed Messages: Motivic Ambiguity in Guinean Malinke Dance Drumming**
Tiffany M. Nicely, SUNY Fredonia

This paper analyzes the interplay of motivic shape and context in Guinean Malinke dance drumming, arguing that it is not only the melo-rhythmic shape of motives, but also their relationships to contextualizing temporal cycles, that give them meaning. Temporal organization in this genre is governed by a combination of temporal cycles that interact as the music unfolds, allowing encultured performers, dancers, and listeners to actively engage with the sounds through entrained prediction. As I will demonstrate, metrical complexity in this genre is heightened in two specific ways: by the inclusion of an asymmetrical timeline as one of the temporal cycles, and by the co-importance of both the quarter and dotted quarter cycles in compound time. This non-nesting of metrical cycles ensures that motives on the musical surface may be heard in multiple contexts simultaneously.

To analyze Guinean Malinke drum motives in terms of their temporal placement, I apply a methodology I call *momentum vectors.* Pairs of musical attacks are analyzed as moving TO, FROM, or remaining NEUTRAL, relative to points on the different metrical cycles contextualizing the music. The non-nesting of metrical cycles ensures that there are often multiple directions for the same pair of notes. This generates what I consider *depth.* This paper pinpoints how perceptual rivalry is created in Guinean Malinke dance drumming, as motives are performed and heard relative to multiple metrical contexts.


*Eine Alpensinfonie*—**Tone Poem, Symphony, or Music-Drama?**
Sam Reenan, Eastman School of Music

In this presentation, I interpret Richard Strauss's *Eine Alpensinfonie* as an unstaged music-drama, involving a *dramatis personae* and, following Robert Hatten (2018), a virtual exchange between nature and the hiker. Most of the thematic ideas constitute a nature-theme family, employing scalar descending passages or outlining triads. The hiker-theme family alternatively features ascending motion and gestural spontaneity—thus, embodiment and subjectivity. My reading constructs an isomorphism between a single large-scale sonata form and Gustav Freytag's (1863) model of dramatic structure. The interaction between sonata form and dramatic structure is predicated on several formal idiosyncrasies: the movement includes a central episode that transcends the sonata; two separate developments enclose the climactic episode; and sonata formal functions are presented in "strong" or "weak" manners. After a synchronic examination of the overall structure, I isolate three moments of interest to the dramatic arch of the movement: the arrival at the summit, the initiation of the descent, and the sonata recapitulation in the epilogue. At the summit, the elemental character of the nature themes and the impulsiveness of the hiker fuse. Launching the descent, the forces of nature co-opt the hiker's Ascent theme,

repurposing it as the principal antagonist of the movement. Finally, the weak recapitulation restates several important themes—they return out of order, but in the tonic E-flat. The assertive initial ascent, the sublime summit episode, the fierce descent, and the ominous darkness of night each morph the hiker's theme while spurring innovations that warp the sonata-form structure.

**Breakdowns and the Aesthetic of Disorientation in Electronic Dance Music**
Jeremy W. Smith, University of Louisville

Repetition as an "aesthetic strategy" is desired most of the time in EDM (Butler 2014, 186–87). However, tracks and performances also have portions when the repetition is broken and significant changes occur. These portions have an aesthetic of disorientation, and they usually occur in the formal section known as the "breakdown." This paper will discuss how and why disorientation is used as an aesthetic strategy in breakdown sections.

Breakdowns are marked by "removing most of the instrumentation from the mix" (Snoman 2019, 332). Even the kick drum, which is the marker of the beat in many styles, is usually removed or "withheld" (Butler 2006, 91–92; Snoman 2019, 331; Solberg 2014, 67). Therefore, in many breakdown sections it is easy for listeners to lose their metric entrainment. Breakdowns also often introduce a new and unique sound layer (Butler 2006, 221–23). This previously unheard element stands out in the thin texture, and the unfamiliarity of it contributes to the aesthetic of disorientation. Other musical techniques of disorientation include metrical dissonance, unclear articulation, and continuous changes to pitch, timbre, or echo/delay.

This paper will show how breakdown sections and their aesthetic of disorientation are important to the experience of EDM. They can be disorienting both physically and psychologically, but this fulfills multiple purposes, such as providing contrast to make musical climaxes more exciting, allowing opportunity for physical rest, and encouraging visual interaction between performers and dancers. Artists discussed will include Chunda Munki, Walter & Royce, and Deadmau5.

**Agents of Delineation: Form as Orchestration in Varèse's *Octandre***
Stephen A. Spencer, The Graduate Center, CUNY

In a well-known lecture, Edgard Varèse describes timbre as "an agent of delineation, like the different colors on a map separating different areas, and an integral part of form." Taking this quotation as a jumping-off point, this paper integrates recent developments in auditory perception, audio processing, and corpus studies in order to investigate the "delineative" role of timbre in Varèse's *Octandre* (1923). I begin with "orchestral graphs" (developed by Emily Dolan) of each movement, which I annotate and restructure to indicate the perceptual integration and segregation of instrumental timbres through time. I supplement this perception-oriented work with computer-assisted exploration, using (a) audio feature analysis to examine local and global fluctuations of low-level spectral features, and (b) statistical analysis of encoded score data to explore instrumental pairings and chord spacing. Ultimately, the multipronged analytical

approach reveals how form emerges from timbral interaction on multiple levels in *Octandre.* I conclude by raising larger questions about the relationship between orchestration and musical form in general, and offer some possible new directions for timbre-oriented analysis of twentieth-century music.

**Functional Analogies: Learning by Comparison in Wordless Functional Analysis**
Nicholas Swett, Cambridge University

One listener described the 1958 broadcast of Hans Keller's second Wordless Functional Analysis (FA) as "a heaven-sent opportunity to hear and re-hear, analyze and compare!" She got at something crucial to Keller's project: his wordless, in-concert analytical interventions provide unique opportunities to learn from musical comparisons. But Keller, with a background in Freudian psychoanalysis, makes some assumptions about how audiences learn during live listening experiences. What can recent work in music cognition and cognitive science more broadly tell us about the strengths and weaknesses of Keller's approach to teaching music through music?

The implicit learning literature points to the difficulty of learning some of the musical concepts that FA tries to teach. Still, musical comparisons heard in FA 10, an analysis of Mozart's Clarinet Quintet, involve exemplar presentation strategies recommended in the analogy and structure-mapping research of Dedre Gentner and colleagues. These strategies, which can help listeners to overcome complex learning challenges, include minimizing differences between two examples of a basic idea in order to highlight a key difference and staging examples of a category according to the principles of *Concreteness Fading.*
I propose a comparison-based framework for analyzing Keller's FAs. I further suggest that the comparison mechanisms found in his work may operate in more recent wordless analyses that bridge the gaps between different composers and styles. I close by advocating for this analytical practice's potential relevance to interleaved, inter-stylistic, and inter-cultural concert programming.

**Perceiving *banyan*: Temporal Syntax Unbeholden to Periodicity**
Anna Yu Wang, Harvard University

Beginning as early as in Johann Kirnberger's writings, Western theorists of musical time have claimed that temporal periodicity and musical salience are fundamentally interlinked—that the ear inevitably expects, even proactively imagines, salient musical events to occur at equally spaced intervals. However, this model of temporal experience does not meaningfully account for much Sinitic music, in which accents can eschew a sense of metric pattern without being heard as a syntactic disturbance. This paper delves into the limitations of a Western intuition for musical time and its associated metric theories by exploring the ontology and cultural ethos surrounding 板眼 banyan—a metric construct that divides music into cyclical groupings of equal pulses called *ban* and *yan*. Drawing on listener testimonies collected during my fieldwork on

*huangmei* opera and *koa-a* opera in China and Taiwan, I attend to how local audiences make sense of temporal structures in which accents appear to vacillate freely in spite of a periodic *banyan* framework. I then account for structural phenomena that arise out of the uncoupling of periodicity and accentual hierarchy, including Sinitic opera's wealth of free, uneven phrase rhythms. I posit that *banyan* illuminates a context of listening in which temporal syntax is grounded not in the desire for symmetry and the ability to anticipate salient events, but rather in 1) a philosophy of changeability and 2) the aestheticization of linguistic sound and syntax.

**Durational and Formal Organizations in Guoping Jia's *The Wind Sound in the Sky* (2002)**
Yi-Cheng Daniel Wu, Soochow University School of Music

This presentation contributes to the field of post-tonal rhythm studies by demonstrating the rhythmic structure in a chamber work by the Chinese composer Guoping Jia (b. 1963)—*The Wind Sound in the Sky* (for cello, percussion, and a Chinese wind instrument sheng; 2002). I show how Jia organizes his rhythmic structure based on strings of integers—which indicate durations—derived from the poem *September* (1986) written by the Chinese poet Haizi.

*The Wind Sound* contains seven movements. My presentation focuses on Mvt. I, which contains two parts. The duration of a rhythmic segment in each instrument is generated by one of the two numerical parameters derived from Haizi's poem: 1) the number of characters in each verse, forming String 1 <14, 11, 10, 11, 10, 10, 14, 14, 10, 7>; and 2) the number of strokes to write each Chinese character, forming String 2 <14, 11, 10, 11, 10, 10, 14, 14, 10, 7>.

Counting one eighth as a beat, the durations of the rhythmic segments in the sheng are represented by String 2. String 1 characterizes the segments in the cello (one sixteenth = one beat) and percussion (one eighth = one beat). While segments in the outer voices perfectly align with the two-part formal division, those in the middle smoothly flow through the division, blurring the formal boundary. During my presentation, I will lead the audiences to listen to the music, experiencing the two-part form narrated by the three intricate layers of different durations of the rhythmic segments.