Music Theory Midwest
Thirtieth Annual Conference
University of Cincinnati
May 10–11, 2019

THURSDAY, MAY 9

5:00 **Dinner for Workshop Participants** (Elephant Walk, 170 West McMillan Street)

6:30 **Pre-Conference Workshop** (3240) *closed meeting

Musical Analysis as Social Analysis
Nadine Hubbs (University of Michigan), Leader

FRIDAY, MAY 10

8:00 **Registration** (Atrium)

8:45 **Welcome** (3250)
Stephanie Schlagel, Interim Associate Dean, College-Conservatory of Music

9:00–10:00

Once More, with Feeling: Harmony and Form in Musical Theater (3250)

Michael Buchler (Florida State University), Chair

Decaying Reprise and Crumbling Signposts in Stephen Sondheim's *Into the Woods*

Nathan Beary Blustein
American University

"Or Perhaps a Little Bit More": Modulation in Leonard Bernstein's Broadway Musicals

Dan Blim
Denison University

Historical Readings (Baur Room)

Jonathan Guez (College of Wooster), Chair

Music and Language in Herbert Spencer's Evolutionary Thought

Miriam Piilonen
Northwestern University

The Transgressive Modernism of Berg's String Quartet—as Told by Adorno

Sam Reenan
Eastman School of Music

10:10–11:10

Mode through the Ages (3250)

Megan Kaes Long (Oberlin College and Conservatory), Chair

Heinrich Glarean, Jakob Paix, and the Problem of Polyphonic Mode

Joshua Klopfenstein
University of Chicago

Partial Orders of Modal "Brightness"

Paul Sherrill
University of Utah

Voice (Baur Room)

Nadine Hubbs (University of Michigan), Chair

Brawlers, Bawlers, and Bastards: Recurring Archetypal Characters and the Semiotics of Vocal Timbre in the Music of Tom Waits

Joshua Albrecht
Kent State University

Voice, Technology, and Agent-Classes in Steve Reich's Tape Works

George Adams
University of Chicago

11:20–12:20

Psychological Foundations (3250)

Daphne Tan (University of Toronto), Chair

Freudian Narcissism and Lewinian Loops: Analytical Reflections on Szymanowski's "Narcissus"

Alan Reese
Cleveland Institute of Music

Signifiers of Transcendence in Moments of *Durchbruch* in Mahler Symphonies 1 and 2

Lindsay Warrenburg
Ohio State University

Musical Memory (Baur Room)

Rebecca Jemian (University of Louisville), Chair

How Fast Should This Melody Go? Melodic Cues for Tempo Determination

Leigh VanHandel
Michigan State University

Memory for Short Chord Progressions

Ivan Jimenez and Tuire Kuusi
Sibelius Academy, University of the Arts Helsinki

12:30   Executive Committee Meeting (4230) *closed meeting

2:00–3:30

Examining Performance (3250)

Greg Decker (Bowling Green State University), Chair

Tempo as Form: Unnotated Orchestral Rubato in Early Recordings, Treatises, and Composition

Nathan Pell
The Graduate Center, CUNY/Mannes College

"A Wired-Up Quartet": Technology and Performance Practice

Joshua DeVries
University of Michigan

Analyzing Interculturality: Miyata Mayumi's Creative Agency in Contemporary Shō Performance

Toru Momii
Columbia University

Texture and Form in Popular Music (Baur Room)

Stefanie Acevedo (University of Dayton), Chair

Unstable Form in Post-Millennial Pop

Kyle Adams
Indiana University

Considering Texture in/of Virtual Spaces in Three Studio-Produced Pop Records

Zachary Zinser
Indiana University

Verses Versus Choruses: N.W.A's "Fuck tha Police" and the *Prime Verse* in Golden-Age Hip-Hop

James Bungert
Rocky Mountain College

3:45–5:15

(Mis)alignments (3250)

Samuel Ng (College-Conservatory of Music, University of Cincinnati), Chair

Strategic Incompletion in Clara Schumann's *Lieder*

Michael Baker
University of Kentucky

New Hearings (Baur Room)

Andrew Pau (Oberlin College and Conservatory), Chair

A Tale of Two *Moteti*: Tonal Structures in Vitry's *Flos/Celsa* and Gloria Ivrea 64

Ryan Taycher
Indiana University

The Tresillo Principle: A Perceptual Taxonomy for the Tresillo Family of Rhythms

Jesse Kinne
College-Conservatory of Music, University of Cincinnati

Expressive Asynchrony and Lyrical Meaning in Buffy Sainte-Marie Songs

Nancy Murphy
University of Houston

Hearing the Inaudible in Dutilleux's *Métaboles*

James N. Bennett
College-Conservatory of Music, University of Cincinnati

A Systematic Approach to Macroharmonic Progressions: Duruflé's Requiem through Fourier Space

Matt Chiu
Eastman School of Music

5:45 **Graduate Student Pizza Dinner** (Mac's Pizza Pub, 205 West McMillan Street)

SATURDAY, MAY 11

8:00 **Registration** (Atrium)

9:00–10:30

Analyzing Post-Tonal Music (3250)

Miguel Roig-Francolí (College-Conservatory of Music, University of Cincinnati), Chair

A Narrative Reading of Alois Hába's String Quartet No. 3 in the Quarter-Tone System, Op. 12

Jennifer Harding
Florida State University

Extending the Parallel Multiple-Analysis Processor: Perceived Meter in Post-Tonal Music

James Sullivan
University of Evansville

Phrase Structure in the Music of Luigi Dallapiccola

Anabel Maler
Indiana University

Romantic Form (3240)

Frank Samarotto (Indiana University), Chair

Discontinuous Developing Variation in Brahms's Slow Movements

Lucy Y. Liu
Oberlin College and Conservatory

Fragments and Frames in the Early Romantic Era

Catrina Kim
Cleveland Institute of Music/Eastman School of Music

The Combined Tutti/Solo Exposition and the Embedded Ritornello in Mendelssohn's Piano Concerto in G Minor, Op. 25

Elizabeth Fox
University of Toronto

10:30 **Technology Committee Meeting** (4230) *closed meeting

10:45–12:15

Rethinking the Familiar (3250)

David Carson Berry (College-Conservatory of Music, University of Cincinnati), Chair

Chasing a Chimera: Challenging the Myth of Augmented-Sixth Chords

Kyle Hutchinson
University of Toronto

Kirnberger, Kollmann, and the Reconceptualization of Non-Harmonic Tones

Ryan Kosseff-Jones
Geneva, NY

The Practical Thoroughbass: Generalization, Individualization, and the Changing Postclassical Style

Andrew Malilay White
University of Chicago

Pitch and Rhythm in Hip-Hop (3240)

Ciro Scotto (Ohio University), Chair

Vocal Pitch in Rap Music

Robert Komaniecki
Appalachian State University

Development and Application of Triplet Flow in Rap Music

Timothy Roth
University of Manitoba

Metric Manipulations in Hip-Hop and R&B Sampling Practice

Jeremy Tatar
McGill University

12:30 Lunch (on your own)

2:00–3:30

Listening to Topics (3250)

Jan Miyake (Oberlin College and Conservatory), Chair

Attending to Fragmented Serenade Topics

Matthew Boyle
University of Alabama

Stravinsky's Neoclassical Apprenticeship: Galant Influences from the *Octet* to *Apollo*

Dan Viggers
Washington University in St. Louis

The Hymn as a Musical Topic in Haydn's Symphonies: Stylistic Sources and Expressive Trajectories

Olga Sánchez-Kisielewska
University of Chicago

Mental Models (3240)

Daniel Shanahan (Ohio State University), Chair

What Is Going on in Someone's Head When They Do Melodic Dictation?

David John Baker
Louisiana State University

A Neurocognitive Approach to Modeling Cross-Sensory Perception in Music and Multimedia

Sarah Louden
Hofstra University

A Model for Measuring Physical Balance in Contemporary Piano Works

Michèle Duguay
The Graduate Center, CUNY

3:30   **Komar Award Committee Meeting** (4230) *closed meeting

3:45   **Business Meeting** (3250)

4:30   **Keynote Address** (3250)

"Sing Me a Song with Social Significance":
Battling Industrialist Oppressors on the Broadway Stage

Michael Buchler (Florida State University)

6:00   **Banquet** (Baur Room)

Program Committee

Áine Heneghan (University of Michigan), Chair

Nora Engebretsen (Bowling Green State University)
Leah Frederick (Indiana University)
Megan Kaes Long (Oberlin College and Conservatory)
Brad Osborn (University of Kansas)
Frank Samarotto (Indiana University)
Daniel Shanahan (Ohio State University)
Stanley Kleppinger (University of Nebraska–Lincoln), *ex officio*

Music Theory Midwest gratefully acknowledges the support and contribution of:

College-Conservatory of Music, University of Cincinnati
Division of Composition, Musicology, and Theory

Stanley Romanstein, Dean, College-Conservatory of Music
Stephanie Schlagel, Interim Associate Dean, College-Conservatory of Music
bruce d. mcclung, Head, Division of Composition, Musicology, and Theory
Jonathan Kregor, Interim Head, Division of Composition, Musicology, and Theory
Eric Louie, Office of Performance Management
CCM graduate student volunteers

ABSTRACTS

FRIDAY, MAY 10

9:00–10:00

Once More, with Feeling: Harmony and Form in Musical Theater
Michael Buchler (Florida State University), Chair

Decaying Reprise and Crumbling Signposts in Stephen Sondheim's *Into the Woods*
Nathan Beary Blustein, American University

Stark opposition lies at the core of *Into the Woods*'s dramatic structure. Act One traces fairy tales that achieve familiar endings; Act Two swiftly collapses into the unexpectedly tragic "Ever After" as the consequences of every character's actions are laid bare. Musically, however, Sondheim sets up an incremental process of decay in how he recalls tunes throughout the first act, warping music-theatrical conventions of reprise as the show progresses. In this paper I examine how this musical process, paradoxically, sets up the show's foundational dramatic opposition.

Throughout *Into the Woods*, four characters sing solos in which they perform the "experience of learning": musical "signposts," as Sondheim calls them, that halt the action and recall characters' own earlier music. These four signposts—Little Red Riding Hood's "I Know Things Now," Jack's "Giants in the Sky," Cinderella's "On the Steps of the Palace," and the Baker's Wife's "Moments in the Woods"—also share a leitmotivic set of contrapuntal figures. Traditional reprises of distinctive musical material, shared leitmotifs, and a dramatic emphasis on lesson-learning multiparametrically endow these signposts with the promise of resolution. But while Sondheim begins by reinforcing these dramatic conventions with musical ones—aligning reprise with tonal, thematic, and cadential closure in the first signpost—these elements progressively fall away at successive stops. Sondheim changes *how* each character recalls their own music, generating rhetorical charge at the *expense* of musical closure. In a show about storytelling, the conventional mechanism by which characters are afforded assessment—and resolution—of their own narratives becomes troubled.

"Or Perhaps a Little Bit More": Modulation in Leonard Bernstein's Broadway Musicals
Dan Blim, Denison University

Leonard Bernstein's Broadway musicals, and especially *West Side Story*, have achieved a place at the top of what Geoffrey Block calls the "European Operatic Ideal" of the Broadway canon. Scholars have justified Bernstein's elevation by citing motivic connections in his scores, his use of classical and modernist musical techniques, and the serious and tragic subject matter. Such approaches, however, rarely consider Bernstein's songwriting. Yet Bernstein's songwriting differed from his theater predecessors in at least one significant area: modulation.

To make this claim, I examine a corpus of approximately 200 songs from the "Golden Age" of Tin Pan Alley songwriting (ca. 1920–1945), analyzing the modulatory practices of these composers and comparing them with Bernstein's. I observe three distinct differences: Bernstein modulates more frequently than was common at the time; Bernstein modulates in sections other than the bridge; and Bernstein modulates to more distant key areas.

I then consider the dramatic motivations for such unusual modulatory practices. Many of the modulations suggest characters unsettled by romance, by ambition, or by the bustle of New York City. Moreover, I posit that Bernstein's modulations contribute to the literature that places Bernstein as "elevating" the genre through another form of musical complexity. By considering modulations in tandem with other

aspects of his scores, we can better understand how Bernstein's first two musicals, *On the Town* and *Wonderful Town*, forecast the lauded musical richness of the more widely discussed *West Side Story*.

Historical Readings
Jonathan Guez (College of Wooster), Chair

Music and Language in Herbert Spencer's Evolutionary Thought
Miriam Piilonen, Northwestern University

In this presentation I examine Victorian evolutionary theorist Herbert Spencer's famous injunction, "All music is originally vocal." In "The Origin and Function of Music" (1857), Spencer tracked a "progressive" line of ascent from simple vocal "exclamations," to complex speech, and finally to music. Charles Darwin claimed oppositely that music evolved into language. Spencer's vision of musical progress tracked with his conception of a dynamic capacity for emotional expression that is specific to the human species. The Spencerian idea that sonic expressivity evolved teleologically from simplicity to complexity, and from homogeneousness to heterogeneousness, reflects Spencer's more general theory of evolutionary progress and anticipates modernist aesthetic ideologies.

My interest in Spencer's music theory is less cosmological and more ethical. I probe what constitutes musical personhood for Spencer, as well as the kinds of sociocultural realities that can be formulated on the basis of theories like his. Voice is key here; for Spencer, voice is the fulcrum of language and music, exemplifying a broader physiological link between emotion and muscular movement. I highlight his sense that words evolved from sonic imitations of the phenomenal world, and I locate Spencer within a historical *mimological* tradition, alongside thinkers like Plato, Leibniz, John Locke, and Max Müller. ("Mimologics" is Gérard Gennette's term for ideas about language that invoke a mimetic origin or function; I introduce this concept for a music theoretical audience.) Finally, I bring Spencer's conception of an unmediated link between voice and emotional expression into contact with contemporary evolutionary musicology, in order to assess the mimologics latent within present-day evolutionary music theories.

The Transgressive Modernism of Berg's String Quartet—as Told by Adorno
Sam Reenan, Eastman School of Music

Many of Theodor Adorno's essays on music constitute a blend of criticism and analysis; in truth, the author links them as forms immanent to the artwork itself. In this paper, Adorno's analytical vignette for the first movement of Alban Berg's String Quartet, op. 3, will serve as an optimal case study for exploring his mode of critical interpretation. Adorno considers it Berg's first mature work, composed in a free atonal language that was, to Adorno, the "high-point of 20th-century radicalism." The analysis is, however, rather short on detailed exposition, a rhetorical technique that Neidhöfer deems typically Adornian: "he has clearly analyzed [the pieces] for himself in their entirety, even though time did not permit him to deal with them fully" (2017, ¶11).

Adorno leaves one intriguing detail largely unexplained: the internal conflicts at the heart of the quartet are said to generate "nothing less than the *liquidation of the sonata*." Part 1 of this paper examines the philological implications of this remark. While Julian Johnson (1995, 302) has referred to liquidation as involving "the negation of traditional forms within its own material," Adorno seems to go further, claiming that the very "essence" of sonata form "disintegrates… permitting the creation of a new symphonic form in free atonality." Subsequently, in Part 2, I tease apart Adorno's formal reading of op. 3, *i*, drawing upon Sonata Theory. Berg's iconoclasm is on display in the minute motivic conflicts of the opening gesture as well as the generic contradictions of the movement as a whole.

Mode through the Ages
Megan Kaes Long (Oberlin College and Conservatory), Chair

Heinrich Glarean, Jakob Paix, and the Problem of Polyphonic Mode
Joshua Klopfenstein, University of Chicago

Theorizing mode in polyphony was a major concern for sixteenth-century theorists. These same questions have attracted significant attention from musicologists, especially following Harold Powers (1981, 1982, 1992). Gregory Barnett argues, "The modes are poor analytical tools, but they are rich in cultural significance. Each variant theory reflects a slightly different Renaissance-era world-view that is translated into musical terms" (Barnett 2013, 183). Jakob Paix puts forth a unique variant of modal theory. In 1589 the German organist Paix applied the twelve-mode system from Heinrich Glarean's *Dodecachordon* (1547) to a practical keyboard print, the *Thesaurus Motetarum*. This keyboard intabulation of vocal works, purportedly in chronological order, gives each piece a single modal designation, often alongside direct quotation of Glarean's modal descriptions. Paix's modal labeling stands at some distance from Glarean's and gives insight not only into Paix's conception of mode but also hints toward a larger humanistic project that extends beyond the relatively modest claims that the print explicitly makes. I argue that this print positions Paix not only as an editor and composer but also as a learned theorist. Following Sarah Fuller (1996) and Cristle Collins Judd (2000) on Glarean's ideological underpinnings, I argue that Paix tries to coopt Glarean's Humanism, learning, and cultural capital and use it as his own. Though Paix's display of erudition has more style than substance at points, his modal labels display a unique approach to the problem of mode in polyphony, one that is often flexible and intuitive yet sometimes convoluted and questionable.

Partial Orders of Modal "Brightness"
Paul Sherrill, University of Utah

This paper generalizes a familiar fact about the seven diatonic modes: they can be ranked unambiguously in terms of pitch height relative to a fixed tonic. For instance, every pitch of C locrian is lower than or equal to the corresponding scale degree of C phrygian; likewise phrygian is no higher than aeolian, and so on. To use a metaphorical mapping common in jazz chord-scale pedagogy, locrian is therefore the "darkest" of the diatonic modes and lydian the "brightest." This paper generalizes that phenomenon to the modes of arbitrary scales. In general, most scales do not admit a simple linear ordering in terms of brightness. Instead, most scales exhibit a partial order in which some modes are neither brighter nor darker than others. This partial order offers a way of characterizing a scale's internal construction at a productive level of generality.

After motivating the concept of "brightness" with analyses of passages from Mozart's *Don Giovanni* and two works by Saint-Saëns, the paper explores several concepts and useful results for modelling modal brightness. These include two different partial orders of brightness, a description of the geometry underlying scales' varying structures, and a pair of constants that characterize different scales. (Perhaps surprisingly, the natural definition of *evenness* is not a useful characterization, as scales representing any structure can be made arbitrarily even.) The theory provides a framework that draws together geometric, algebraic, and combinatoric models of musical scales, offering a natural generalization of concepts like "well formedness" to all scales.

Voice
Nadine Hubbs (University of Michigan), Chair

Brawlers, Bawlers, and Bastards: Recurring Archetypal Characters and the Semiotics of Vocal Timbre in the Music of Tom Waits
Joshua Albrecht, Kent State University

One of the most immediately recognizable aspects of Tom Waits' music is his rough, raspy vocal timbre. But it is a mistake to talk about his "voice" as a single thing. In contrast to the implicit autobiography normative for the singer/songwriter (Starr and Waterman 2003), Waits' songs are often overtly inhabited by fictional personas, marked by distinct vocal timbres, singing with their own "voices" (Montadon 2005).

This paper argues that the semiotics of Waits' vocal techniques offer interpretive insights that can cut through otherwise opaque lyrics. Vocal timbre as hermeneutic window is especially germane in Waits' music. Not only are similar topical themes in Waits' songs commonly coupled with recurring vocal timbre, but he also occasionally employs two distinct timbres to represent two different characters in the same song.

In this paper, I demonstrate that there are a relatively small number of vocal character archetypes in Waits' music, whose songs are marked by shared vocal timbre. To support my theory, I offer converging evidence by combining individual song interpretations with an empirical approach that classifies Waits' vocal timbres into categories. In an empirical study, participants grouped 147 Waits song excerpts by vocal timbre, resulting in seven large timbral categories or character archetypes. These tracks were then subjected to automatic feature extraction and compared with one another along timbral dimensions using the MIR toolbox. The seven categories demonstrate different timbral profiles, consistent with distinct vocal characters in Waits' music. These results suggest future directions in interpreting the meaning of Waits' songs.

Voice, Technology, and Agent-Classes in Steve Reich's Tape Works
George Adams, University of Chicago

Experimental music has a problem with voice. And the voices of experimental music—whether singing or speaking, the performers' or the composer's—seem to have a problem with agency. In this paper, I revisit Seth Monahan's (2013) theory of hierarchical agent-classes in analytical discourse to argue that the problem of voice in experimental music can be understood through extensions to his model.

Post-1945, American composers sought alternatives to received conventions of personal expression and agency of a musical work and its performers. These conventions are evident in Monahan's meta-analytical model, which illustrates an order of musical agent-classes from analyst and composer down through individuated elements. While some composers of experimental music claimed to break from these conventions by reconceptualizing musical sound and compositional process, I argue that many of these agential norms persisted in their music, and that the persistence of composers' agency in experimental music is made especially evident by their treatment of voice. In particular, Steve Reich's *It's Gonna Rain* (1965) and *Come Out* (1966) present opportunities to rethink discursive constructions of agency in the predominant hermeneutics of experimental music. Expressions of objectivity in 1960s minimalism are squared with agential conventions of music analysis as theorized by Monahan in a critique of object-oriented ontology via Marie Thompson's (2017) notion of "white aurality." This paper also responds to the set of essays in MTO 24.3 (2018) on agency in musical performance and extends their contributions to consider the variegated roles of performers in experimental music.

11:20–12:20

Psychological Foundations
Daphne Tan (University of Toronto), Chair

Freudian Narcissism and Lewinian Loops: Analytical Reflections on Szymanowski's "Narcissus"
Alan Reese, Cleveland Institute of Music

Despite Szymanowski's declaration that the *Myths* (1915) for violin and piano were not "dramas" (Wightman 1999, 144), several scholars—including Palmer (1983), van Moere (2008), and Helman (2015)—have called for programmatic readings of "Narcissus." To this I respond with a narrative analysis inspired by Freud's (1914) conception of narcissism and Lewin's (1986) discussion of perceptual loops in Husserl's phenomenology. "Narcissus" depicts the self-obsessive and self-referential qualities of the titular narcissist through diverse musical means—imitative counterpoint, generative harmonies, inversional symmetry, and cyclic bass lines. The idiosyncratic sonata form highlights how Narcissus is tragically ensnared in a perceptual loop with his own reflection—Narcissus-watching-Reflection-watching-Narcissus-watching… ad infinitum—that can only be terminated with what Lewin dubs an "external call"—in our protagonist's case, his death and transformation. Through my analysis, I further demonstrate how Szymanowski's manipulation of sonata form and the tension between tonal and cyclic structures in "Narcissus" are core features of Szymanowski's middle-period style.

Signifiers of Transcendence in Moments of *Durchbruch* in Mahler Symphonies 1 and 2
Lindsay Warrenburg, Ohio State University

Musical moments that evoke transcendence have been a key focus in analytical and historical studies of Mahler's music. Indeed, the idea of *Durchbruch*—passages of "breakthrough"—has both intrigued and perplexed scholars in the last two decades (e.g., Darcy 2001; Kinderman 2006; Marvin 2009; Monahan 2011). Although the term is typically applied to highly emotional moments of music, the definitive features of *Durchbruch* passages (if any) have yet to be qualified. The current paper presents a musical analysis of *Durchbruch* passages. Additionally, the paper highlights how two recent psychological theories—the Suppressed Fear Theory (Huron 2006) and the Hive-Switch Theory (Haidt 2012)—can be used to explain why *Durchbruch* compositional strategies give rise to feelings of transcendence. By refining the parameters that are necessary to be labeled as *Durchbruch* moments, I demonstrate that the Mahler *Durchbruch* passages are intimately related to the success or failure of the sonata form (i.e., Hepokoski and Darcy 2006; Marvin 2009; Monahan 2015) and connect extramusical ideas across movements of a symphony. Powerful moments of music may have structural features consistent with those that lead to musical transcendence, but they can only be considered to be moments of *Durchbruch* if they include repercussions for the movement as a whole.

Musical Memory
Rebecca Jemian (University of Louisville), Chair

How Fast Should This Melody Go? Melodic Cues for Tempo Determination
Leigh VanHandel, Michigan State University

Imagine you are given an unfamiliar piece of music with no tempo indications; how do you determine the appropriate tempo to perform that piece? You would probably rely on melodic, rhythmic, or harmonic cues

to help you determine an appropriate tempo—but what cues, and how do they work together? We are calling the process of actively selecting an appropriate tempo based on melodic, rhythmic, or harmonic cues *tempo determination.*

This research extends the work of Boltz (1998), which suggested that specific melodic characteristics such as the number of contour changes influence tempo perception in an unfamiliar melody. We use an innovative experimental design in which subjects manipulate the tempo of a melody in real time; their task is to actively determine what they believe to be an appropriate tempo for each melody.

We have conducted three experiments investigating the role that various melodic characteristics have on tempo determination, with results indicating that contour change is the most important characteristic influencing tempo determination, with a preference for slower tempos with increased contour changes. We are able to align our results with predictions from the auditory kappa effect (Henry and McAuley, 2009), which finds that larger leaps in melodies distort the perception of timing. These studies demonstrate that melodic characteristics alone can influence the active process of tempo determination.

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Memory for Short Chord Progressions
Ivan Jimenez, Sibelius Academy, University of the Arts Helsinki
Tuire Kuusi, Sibelius Academy, University of the Arts Helsinki

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Doll (2017) identified chord progressions commonly found in North American and British popular music and proposed that these chord progressions can be stored in long-term memory in the form of harmonic schemata that allow listeners to hear them as *stereotypical* chord progressions. To investigate listeners' ability to realize that they have previously heard a chord progression we asked 231 listeners with various levels of musical training to rate their confidence on whether or not they had previously heard six diatonic four-chord progressions. To control for the effect of extra-harmonic features, we instantiated the chord progressions in a way that resembled the piano of a famous song and controlled for participants' familiarity with that song and whether they had played its chords. We found that ratings correlated with the typicality of the chord progressions for the two groups of participants who had played an instrument for at least one year (players who had not played the reference piece as well as other players), and to a lesser extent for the other participants. Additionally, "players" were more confident than the other participants about knowing songs that use more common chord progressions; thought of specific songs more often; and mentioned songs that better matched the stimuli in harmonic terms. In our presentation we will discuss our findings in more detail as well as the relevance of our findings to the fields of music theory and music theory pedagogy.

2:00–3:30

Examining Performance
Greg Decker (Bowling Green State University), Chair

<div align="center">

Tempo as Form: Unnotated Orchestral Rubato in Early Recordings, Treatises, and Composition
Nathan Pell, The Graduate Center, CUNY & Mannes College

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The belief is widespread amongst modern scholars and practicing musicians that the pervasive flexibility of tempo heard on early recordings constitutes a "liberty" of Romantic performance practice, originating with Wagner and Liszt (Rosenblum 1994) and unforeseen by earlier composers (Bowen 1993). This view, however, sits at odds with an abundance of sources from the late eighteenth and early nineteenth centuries (Brown 2004), which demonstrate not only that such rubato predated Wagner by several decades, but that composers

even expected the tempo to fluctuate in certain well-defined situations, which I enumerate. Working from these expectations, I argue, composers wrote tempo fluctuations into their music through the notes they chose, in striking alignment with their formal layouts.

Building on work by Philip (1992), I show that the rubato described in early nineteenth-century treatises is exemplified in pre-WWII orchestral recordings (where tempo practices are clearer than in solo or chamber music), using tapping data I collected from ~350 recordings of around 40 Classical and Romantic sonata movements. And I note ways in which the familiar features of sonata form might encode changes in tempo, identifying the norms of typical sonata-form tempo design and passages that flout these customs.

These conclusions require us to expand our notions about what constitutes form. If the tempo practices on early recordings indeed have their roots in the early nineteenth century, then they are as much a part of the music's form as its harmonies and phrase structures. In other words, I consider tempo a form-defining parameter.

"A Wired-Up Quartet": Technology and Performance Practice
Joshua DeVries, University of Michigan

In 1970, the Stanley Quartet, conducted by George Crumb, premiered *Black Angels*. The premiere, recorded on reel-to-reel tape, was recently discovered and matches early reviews: "big electronic sound of a wired-up quartet" (Bloomfield 1971). Early technology could not match Crumb's expectations—the score instructs to "avoid distortion of tone"—yet the first recordings sound unrecognizable as string quartets. This timbre reflected the time period, sounding similar to feedback experiments by Hendrix, and contributed to *Black Angels*' post-premiere christening as the "Vietnam Quartet."

As amplification technology progressed towards Crumb's ideal, differing performance methods arose: one where the amplification has minimal timbral effect and another where technology alters the sound. This presentation will first define these methods of performance through demonstrations on the cello, excerpts from the premiere recording, and performance reviews preserved in Crumb's scrapbooks at the Library of Congress. In order to recreate the early technology, Henry Root, who designed the contact microphones and amplifiers for the premiere, has agreed to devise replicas.

The electronically-heightened performances originate in antiquated technology, and, despite contradicting Crumb's written instruction, have remained commonplace. Kronos Quartet even has a conscious affinity for it: "It was what we wanted [in the 1970s] and we try to keep it with today's electronics." Crumb, when asked about his conflicting suggestions and the divergent practices, responded, "The world has so much pain now. We don't need any more pain." The second half of this paper will examine how the different methods of performance affect listener perceptions and analytical readings.

Analyzing Interculturality: Miyata Mayumi's Creative Agency in Contemporary Shō Performance
Toru Momii, Columbia University

My paper examines how shō player Miyata Mayumi's considerations of dynamics, articulation, and sound-producing gestures in her solo performances contest the dichotomies of Japan/West and traditional/contemporary. While previous studies on the hybridization of traditional Japanese and contemporary Western music (Nuss 1996; Motegi 1999; Everett 2005) have focused primarily on compositional strategy, the contribution of performers has received little attention (Wade 2014). To fill this gap, I situate Miyata as an active agent in the shaping of a musical work (Lochhead 2016) to examine how her performances exhibit multiple forms of cultural hybridity. I analyze the intricate transcultural processes at work in two of Miyata's recorded solo performances: *Hyōjō-no-chōshi*, a traditional dance prelude originally composed for tōgaku ensemble, and *One⁹* (1991), a collaborative piece between Miyata and John Cage.

I argue that Miyata's performance of *Hyōjō-no-chōshi*, which she has refashioned as a self-standing solo work, invites new expressive meanings for traditional repertoire. I draw attention to melodic, timbral, and gestural features within the shō part that would have been obscured in a traditional ensemble performance of a chōshi. Through spectrographic analysis, I demonstrate how Miyata's execution of dynamics and articulation accentuates the chōshi's melodic lines. My analysis of *One⁹* suggests that traditional pitch structures and fingering conventions inform the work's time bracket meta-structure (Popoff 2010). By highlighting Miyata's role as a key collaborator in the compositional process of the work, I contend that her performance creates an intercultural space shared between avant-garde and traditional Japanese music.

Texture and Form in Popular Music
Stefanie Acevedo (University of Dayton), Chair

Unstable Form in Post-Millennial Pop
Kyle Adams, Indiana University

Popular-music scholarship is increasingly emphasizing both the importance of timbre and the ways in which rearranging elements of a song can both alter the expressive character of those elements and problematize the identification of larger formal units. Since many of the musical elements of a song are both cyclical and configurable, timbre often shoulders much of the work of defining form in this music. This paper has two goals: first, to demonstrate how, in post-millennial pop, timbre helps define formal units in a song; and second, to argue that formal units in this music are inherently unstable—that the same melodic/harmonic framework can fulfill different rhetorical functions depending on its timbral underpinnings.

I will proceed via two case studies: in the first, "Cake" by Flo Rida, the song's two sections are made up of virtually identical subsections that nevertheless have different formal functions. In the second, "Don't Leave Me Alone" by David Guetta, remixes of the song change the formal elements by adding and removing timbral layers. My argument is not only that timbre plays a critical role in demarcating form, but that the formal units themselves can change, or even disappear. In configurable music, identification of formal units via traditional pitch- and rhythm-based parameters does not always yield consistent results. Timbral elements can destabilize form, leading to a much more mutable picture of formal function in this music.

Considering Texture in/of Virtual Spaces in Three Studio-Produced Pop Records
Zachary Zinser, Indiana University

Texture, in music-theoretic contexts, often involves categorical ways of framing relationships among "parts." Yet advancements in technology have allowed for listening conditions that radically complicate assessment of what a musical "part" is; and, complicating matters further, such assessments often take place in virtual spaces rather than actual acoustic situations. Building on the work of Moore (2012), Moylan (2012), Théberge (2018), and Zagorski-Thomas (2018), this paper argues that discussing texture in pop recordings requires nuanced consideration of how impressions of virtual sonic spaces are created and artfully used to shape a listener's functional interpretations of sound. In natural acoustic spaces, the sounds we perceive are affected by the dimensions of the space we occupy; in virtual spaces, this perceptual mechanism is reversed— our perception of space is affected, even created, by sounds. Not only are the relations among contrasting spatial impressions unique to our listening experience of recordings, they are also as critical a feature of musical texture as any syntactic content more familiar to music-theoretic discourse. I discuss three stylistically contrasting examples: the use of time-based effects in Strange Talk's "Climbing Walls" (2011); sensations of envelopment in Michael Jackson's "Rock with You" (1979); and the use of contrasting spatial impressions as a quasi-syntactic device in Ariana Grande's "No Tears Left to Cry" (2018).

Verses Versus Choruses: N.W.A's "Fuck tha Police" and the *Prime Verse* in Golden-Age Hip-Hop
James Bungert, Rocky Mountain College

In what Ice Cube calls a "revenge fantasy" (Rose 1995), N.W.A's "Fuck tha Police" portrays a courtroom where police are on trial for brutality, with N.W.A serving as court officials. Verse 1 features several rhythmic intricacies: inconsistent rhyme placement, enjambment, unpredictable beat pauses, and sheer length of thirty-two measures, eight times the length of the chorus. Together, these rhythmic components inhibit a phenomenological anticipation of the chorus, producing a kind of temporal disorientation that intensifies throughout the verse. This disorientation in turn aggravates the song's message of violent retaliation: unable to anticipate the chorus, the listener is now at the mercy of N.W.A, which places the listener in the position of the police on trial—at the mercy of court proceedings—while also reciprocating a hint of the American ghetto's volatility and unpredictability. In contrast, the four-measure chorus promotes temporal stability, a respite (of sorts) from the verse.

This paper hypothesizes that hip-hop songs with relatively intricate verses—common in hip-hop's Golden Age—invert conventional understandings of pop/rock form where the chorus is primary, forming the *hook*, the musical focus of the song, and other modules (verse, bridge, prechorus, etc.) are secondary (Covach 2005, Osborn 2013, Summach 2012, Everett 2008). To the extent that its verses most poignantly convey its message, "Fuck tha Police" serves as a case study to the contrary: here, the verses form the primary focus and the chorus is secondary. Proceeding from this song, I lay out criteria for a new formal module I call the *prime verse*, with songs featuring prime verses being in *prime-verse form*, a structure prevalent in Golden Age hip-hop—which rap analysts have yet to consider in depth. Prime-verse form also facilitates a new formal understanding of contemporaneous rappers (e.g., Rakim, KRS-One, Slick Rick) while shedding new analytical light on 90s songs in terms of the growing divide between underground and commercial rap.

3:45–5:15

(Mis)alignments
Samuel Ng (College-Conservatory of Music, University of Cincinnati), Chair

Strategic Incompletion in Clara Schumann's *Lieder*
Michael Baker, University of Kentucky

The abstract notion of completion is a central concern for many approaches to music analysis. We regularly speak of the completion of formal sections, the completion of motivic processes, the completion of narrative journeys, aggregate completion, and so on. Accordingly, the strategic use of musical incompletion, and the purposeful avoidance of the completion of a fundamental musical idea, would be a marked musical event, one that could effectively portray similarly marked aspects of a given poetic text. In this paper I examine two songs by Clara Schumann (1819–1896) that explore the notion of strategic incompletion of the fundamental structure in two interesting ways: (1) delaying the first appearance of the tonic harmony until nearly the end of the song through an expanded auxiliary cadence, and (2) establishing the tonic harmony early on as expected but concluding the song on the structural dominant, resulting in a "permanent interruption."

By purposefully suppressing aspects of the fundamental structure through the devices mentioned here, music can become charged with dramatic tension and rich with expressive potential. These two techniques represent opposite ends of a spectrum, one concerned with incompletion directed at the beginning of the fundamental structure, the other with incompletion directed at its conclusion. More generally, composers may

draw upon the abstract notion of strategic incompletion to depict any number of musico-poetic sentiments in a song.

The Tresillo Principle: A Perceptual Taxonomy for the Tresillo Family of Rhythms
Jesse Kinne, College-Conservatory of Music, University of Cincinnati

The collective effort for a theory of tresillos is fractured along taxonomic and conceptual lines. While Cohn 2016 synthesizes many interweaving strands of prior thought by relating various tresillo rhythms through a generative principle of interrupted 3:2 temporal layering, it is limited by the need for an empirically-grounded metrical model. This paper tempers Cohn's conceptualization in light of London's 2004 thresholds for metrical entrainment, offering an overhauled conceptual framework and taxonomy for the tresillo family of rhythms.

In pure duple rock grooves, isochronous 3-generated durations (*3-streams*) typically include regularly lengthened or shortened pulses (*commas*). Commas create an entrainable seam, allowing the cyclically-interrupted 3-stream to be heard as a repeating maximally-even rhythm reinforcing the metrical level sharing its periodicity. For example, 333 and 33333 become 332 (=8) and 33334 (=16), respectively.

Perception limits the scope of entrainment to six metrical levels, with two or three entrainable as tactus at any given time. Members of the *tresillo family* are classified by their *order* (absolute metrical level hosting the 3:2 conflict) and *depth* (relative number of metrical levels bypassed before the comma occurs). Defining tresillos thusly encourages consideration of multiple subjective hearings in which different levels are entrained as tactus.

Besides analytic clarity on where tresillo rhythms fall in the metrical field, this paper's conceptual and taxonomic overhaul offers to standardize and, therefore, optimize research and pedagogy, thus facilitating recent community-wide efforts towards core theory pedagogies which place equal emphasis on rhythm as pitch, and repertoire outside as within the canon.

Expressive Asynchrony and Lyrical Meaning in Buffy Sainte-Marie Songs
Nancy Murphy, University of Houston

Studying *expressive asynchrony* investigates the de-synchronization of notationally-aligned events in performance. In two songs by Canadian singer-songwriter Buffy Sainte-Marie—"Winter Boy" from *Little Wheel Spin and Spin* (1966) and "Ananias" from *It's My Way!* (1964)—this technique occurs without a referential score and serves to express lyrical meaning. "Winter Boy" laments a failed romance, then describes lost love as regained through the birth of a son. Sainte-Marie emphasizes specific phrase-unit beginnings with slowed tempo and asynchronized downbeat arrivals between voice and guitar. These asynchronies express lyrical narrative, as a weary-hearted woman finds home in the birth of her son. A similar process occurs in "Ananias," where asynchrony is part of an expressively-timed opening that eventually yields to coordination between voice and guitar. Vocal accents are asynchronized from accented guitar entries, highlighting sensations of metric uncertainty that parallel lyrical questioning of faith. The timings progressively align, expressing her gradual affirmation of beliefs. Interpreting asynchrony in popular song necessitates comparison against an imagined, aligned prototype. I conclude by exploring asynchrony in popular song performance more broadly, proposing that expectations of synchrony (rather than an existing normative performance) enhance the effect of expressive timing.

New Hearings
Andrew Pau (Oberlin College and Conservatory), Chair

A Tale of Two *Moteti*: Tonal Structures in Vitry's *Flos/Celsa* and Gloria Ivrea 64
Ryan Taycher, Indiana University

The Ivrea Codex, one of the most important sources of *Ars nova* polyphony, contains an extensive repertory of motets, mass movements, and *chansons*. Among these works is the motet *Flos/Celsa*, attributed to Philippe de Vitry and composed upon the tenor "Quam magnus pontifex" celebrating the canonization of Louis of Toulouse, as well as a motet-style polyphonic Gloria (Ivrea 64) that was composed using the same isorhythmic tenor. This exceptional case provides a distinct opportunity to compare and contrast two approaches to organizing tonal structure.

In my presentation, I combine my analytical methodology for distinguishing between the *contrapunctus* structure and its elaboration with theories of sonority progression (e.g., Fuller and Hartt) and cadential structure (e.g., Bain and Moll). This enables a more nuanced analysis of sonority by differentiating structural sonorities from elaborative sonorities, and this distinction aids further in discerning degrees of structural significance in directed progressions and cadences.

With this resultant methodology, I analyze the large-scale tonal structures of *Flos/Celsa* and Gloria Ivrea 64 to compare and contrast the organization of tonal structures upon the same tenor. We may observe points of similarity, which suggest structural techniques or strategies that were important to or valued by contemporaneous musicians. When the structural analysis of corresponding passages between the two pieces differs, we may consider what musical features lead us to analyze the passages as such, ultimately improving our analysis. Comparing these two compositions therefore provides a unique opportunity to delve into analyzing the large-scale tonal structures of *Ars nova* polyphony.

Hearing the Inaudible in Dutilleux's *Métaboles*
James N. Bennett, College-Conservatory of Music, University of Cincinnati

The French term *métabole* is most often used today to designate metamorphosing insects, but it has several interesting historical definitions, such as (1) a rhetorical device in which a word reappears within a passage but is in some way altered and (2) a musical operation, such as a metrical shift or a modal modulation. In addition to repeatedly characterizing his 1964 orchestral work *Métaboles* in terms of one or another of these definitions, Dutilleux emphasized the potential for such transformations to generate "real" or "essential" change. In one interview, he even outlines a precise mechanism: "A certain sound event, sometimes very brief and unidentifiable in the moment," he explains, "will settle in the unconscious of the listener and play its role *a posteriori*." In this paper, I argue that *Métaboles* enacts a comparable process and that Dutilleux's idiosyncratic use of the twelve-tone method is crucial to its execution. More specifically, I argue that, in the final movement's reprise, the row becomes a catalyst that sends shockwaves throughout the piece and forces a retrospective reconsideration of everything that came before. To demonstrate this, I first interpret the opening movement in terms of collections, inversional relations, voice leading patterns, etc. I then move on to describing the properties of the row, which is derived from set-class (016) and strongly suggests interaction with an ic1/6 Tonnetz. Finally, I show how the reprise's relation to this construct reveals a surprising connection between it and the rest of the piece, including the very opening.

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A Systematic Approach to Macroharmonic Progressions: Duruflé's Requiem through Fourier Space
Matt Chiu, Eastman School of Music

Macroharmony, as defined by Dmitri Tymoczko (2010), is "the total collection of notes heard over moderate spans of musical time." The movement between and among macroharmonic states is often difficult to describe. In the context of Stravinsky's music, Pieter van den Toorn (1983) describes the influence of octatonic and diatonic collections on one another as "interpenetration." Joseph Straus (1984) critiques his lack of "systematic criteria," and broader scholarship has not yet established precise language for the movement between these different macroharmonic states. The discrete Fourier transform (DFT) provides a more rigorous method for examining these overarching collections with Ian Quinn's chord qualia (2006/2007). The DFT provides the necessary precision for evaluating this relationship (shown by Jason Yust, 2015). To examine progressions in macroharmony over the course of a piece, my coding procedure uses overlapping windowing similar to Amiot (2017)—although I implement $\log_2$-weighted multisets instead of tallied multisets to accommodate centricity yet also curve for PC repetition. By extracting overlapping windows of discrete pitch information from a piece's MIDI data, I show how the DFT of weighted inputs characterizes multisets in a way congruent with the macroharmony. I analyze the Domine Jesu of Duruflé's Requiem, which frequently shifts between various scalar collections, to demonstrate that the DFT can reliably trace the form-defining progression of macroharmonic states through a complete piece.

SATURDAY, MAY 11

9:00–10:30

Analyzing Post-Tonal Music
Miguel Roig-Francolí (College-Conservatory of Music, University of Cincinnati), Chair

A Narrative Reading of Alois Hába's String Quartet No. 3 in the Quarter-Tone System, Op. 12
Jennifer Harding, Florida State University

The microtonal string quartets of Alois Hába (1893–1973) offer two significant challenges to a musical narrative approach. First, the microtones themselves create an unfamiliar sonic landscape. Second, Hába's music is athematic: no themes or motives are repeated or developed. Rather than inhibiting the listener from ascribing meaning to the music, such "musical prose" requires listeners to rely on extra-musical associations, suggesting that these works are representatives of Klein's "neo-narrative" music: "music in search of new ways to tell stories." I take Hába's third string quartet as a case study to unravel not only the musical narrative, but also how he constructs a narrative within his microtonal and athematic vocabulary.

Hába viewed the "old" scale (our typical 12-tone equal-tempered scale) as "basic" and more stable than the "new" scale, its quarter-tone offset, which together form "points of tension." These elements are seen at the first movement's moment of crisis, where a chord of brilliant and jarring clarity from the old scale emerges from the tension of the microtonal harmonies. Catastrophically, it is not the C major triad the music has been fighting to achieve, and the music careens back into the microtonal mire from whence it came.

Extending the Parallel Multiple-Analysis Processor: Perceived Meter in Post-Tonal Music
James Sullivan, University of Evansville

The extent to which meter is perceived in rhythmically irregular post-tonal music has been a matter of speculation and investigation for several decades and is still not entirely agreed upon. Some early acknowledgements of the problem (Lester 1986; Lewin 1987), as well as more fully developed theories (Lerdhal and Jackendoff 1983; Roeder 1994; Hasty 1997), privilege perceived periodicity over the notated meter. At the same time, strict periodicity has been called into question by theories incorporating non-isochronous meters (London 2012), motive-driven aperiodic meter (Horlacher 1995), and other irregular metric structures (Kramer 1988; Leong 2011).

I approach the issue from the perspective of local regularity: if meter, isochronous or otherwise, is perceived in rhythmically irregular post-tonal music, it must arise from an attempt to entrain to regularity at the moment-to-moment level. Mirka's (2009) *parallel multiple-analysis processor* is especially suited to account for such real-time, predictive metric processing. I extend her model to account for (1) standard non-isochronous meters, (2) fluctuating sensations of meter in more deeply irregular music, (3) meter in multiple perceptual streams, and (4) music that systematically subverts metric processing. I situate the discussion in passages by Babbitt, Barber, Carter, Feldman, Henze, and Webern, in which perceived meter is tied to structural and expressive aspects of pitch, form, and text. I also discuss the relationship between my theoretical generalizations and work on temporal thresholds (London 2012), metrical reinterpretation (Temperley 2008), metrical dissonance (Krebs 1999), selective attention (Jackendoff 1987), and modular perception (Temperley 1995).

Phrase Structure in the Music of Luigi Dallapiccola
Anabel Maler, Indiana University

The concept of phrase looms large in theories of form, from Koch (1782–93), to Schoenberg (1967), to Hasty (1984), to Caplin (1998). But despite its prevalence, "phrase" is an alarmingly slippery concept, reluctant to be tied to any particular length or content. This is especially true in the context of post-tonal music analysis, where the concept of phrase is widely used but frequently left undefined. The meaning of phrase becomes especially attenuated when it meets with a non-tonal system, like twelve-tone technique. The music of Luigi Dallapiccola offers fertile ground for exploring what phrase might mean in such a context. This paper explores the phrase in Dallapiccola's *Dialoghi* (1959–1960) and *Preghiere* (1962).

In analyzing *Dialoghi*, I develop a perspective on the work's twelve-tone structure—in particular, Dallapiccola's use of cross-partitions, as discussed by Alegant (2001)—through the lens of its phrase structure. My analysis of *Preghiere* explores how Dallapiccola makes use of disparate elements to form phrases, ultimately showing how the voice and orchestra become disconnected over the course of the first movement. Through my exploration of phrase in *Dialoghi* and *Preghiere*, I ultimately advocate for an understanding of phrase as a listener-centered phenomenon that emerges from the embodied processes of categorization, perception of salience, prospection, and retrospection.

Romantic Form
Frank Samarotto (Indiana University), Chair

Discontinuous Developing Variation in Brahms's Slow Movements
Lucy Y. Liu, Oberlin College and Conservatory

In the history of Brahms reception, "developing variation" emerged as a central—if not uncontested—concept. Typically, analyses that invoke Schoenbergian developing variation highlight (1) surface manipulations of a few motives and (2) how this process of varied repetition creates a coherent, linear argument for a given piece. Yet *discontinuities* abound in many slow movements by Brahms that employ developing variation—for instance, the "Romanze" of the String Quartet No. 1 and the Adagio of the Second Symphony.

My paper foregrounds an undertheorized aspect of Brahms's art: a piece built from only two or three motives may nevertheless challenge "simple" organicism because its repetitions don't add up to a logical growth of the initial material. That is, even when an idea changes one step at a time, the resulting formal and tonal path can still be disjunct. Examining the Romanze of the First String Quartet, I show that developing variation is not yoked to just one aesthetic outcome—namely, unity, and a formal argument that "works" (in both senses: to work hard to achieve something; to operate effectively and in a satisfying manner). Instead, I ask: despite copious amounts of thematic similarity and melodic linkages, how can we capture this movement's fragmented and stream-of-consciousness quality? Three passages will be discussed: the opening phrases, the first **B** section within the movement's **ABA'B'A"** design, and the two transitions between **A['l]** and **B['l]** (each transition includes a large-scale interruption and employs linkage technique to defamiliarize **B['l]**).

Fragments and Frames in the Early Romantic Era
Catrina Kim, Cleveland Institute of Music & Eastman School of Music

Goehr (2015) contends that the work-concept wholly transformed the prelude, so that "the practice of preparatory preluding became the art of a Romantic prelude *already prepared*" (8, emphasis mine). By definition, the prelude is both incomplete and merely functional, used by performers to ready themselves for the main event. But, Goehr argues, this utilitarian status was tenuous from the very outset, for the moment the prelude was too interesting, it threatened to upstage the main event and shed its preparatory identity (10). How does this paradox relate to the introduction, another kind of "preparatory" music? In other words, how do introductions deny their inherently marginal quality? I respond to this question by comparing three compositions: Felix Mendelssohn's String Quartet in A minor, op. 13 (1827) and the opening movements of Robert Schumann's Piano Sonata in F-sharp minor, op. 11 (1835) and Fanny Mendelssohn Hensel's String Quartet in E-flat (1834).

My analytical framework focuses on three intersecting levels: the individual work's formal attributes, intertextual relationships, and the aesthetic trends that inform a variety of beginning strategies. I draw on Hepokoski and Darcy's (2006) and Caplin's (1998) theories of classical form augmented by important perspectives on early nineteenth-century form (Daverio 1993, Schmalfeldt 2011, and Vande Moortele 2017). Analytical comparison of these opening procedures reveals two consistent underlying aesthetic impulses. First, the Romantic *Tendenz* toward fragment informs an impulse toward the increasing independence of these introductions. Second, these beginnings, like the once-marginal preludes, uniquely exemplify the hegemonic aesthetic impulse of the Romantic era.

The Combined Tutti/Solo Exposition and the Embedded Ritornello in Mendelssohn's Piano Concerto in G Minor, Op. 25
Elizabeth Fox, University of Toronto

Mendelssohn's Piano Concerto in G minor, Op. 25 (1831), represents a turning point in Romantic concerto form. Drawing on Weber's *Konzertstück*, Op. 79 (1821), Mendelssohn relinquishes the double exposition format in the first movement and combines the first ritornello and first solo into a unified presentation of thematic ideas. As Julian Horton (2017) has indicated, this practice generates a higher degree of balance between orchestral and solo forces, producing a greater semblance with symphonic sonata form. The combined tutti/solo exposition is characteristic of Mendelssohn's later concertos, and influenced works in the same genre by Schumann and Liszt, among others. This trend bolsters Adolf Bernhard Marx's (1847) assertion that concerto form had become nearly synonymous with sonata form, and explains a tendency for subsequent nineteenth-century theorists to differentiate between concerto and sonata form in terms of instrumentation rather than structure (Stevens, 1974; Lindeman, 1999).

I propose that the combined tutti/solo exposition relocates the orchestral and solo alternation from the level of the movement to the level of the theme, resulting in local formal deviations that facilitate instrumental shifts. In other words, when two or more instrumental forces share a single theme, practices such as varied repetition and blurred boundaries enable smoother dialogue. Using the analytical toolsets of Caplin (1998) and Horton (2017), I describe this design as an "embedded ritornello," and determine that mid-Romantic concerto form remains distinct from sonata form in other genres through localized ritornello procedures that substitute for the expositional repetition, harmonic anchoring, and motivic flexibility of a double exposition.

10:45–12:15

Rethinking the Familiar
David Carson Berry (College-Conservatory of Music, University of Cincinnati), Chair

Chasing a Chimera: Challenging the Myth of Augmented-Sixth Chords
Kyle Hutchinson, University of Toronto

Novel to the like-named family of chords, the augmented-sixth interval has mesmerized contemporary analytic practice: new augmented-sixth chords, it seems, are unearthed regularly (e.g., Martin 2008, Piché 2018). This fascination, however, has inured analysts to recognizing other possible interpretations of these chords. This paper probes traditional theoretic assumptions surrounding augmented-sixth chords, questioning whether the category of "augmented-sixth chord" is a viable one.

My contention: augmented-sixth chords are more readily understood as chromatic alterations of dominant-functioning chords. While contemporary perspectives focus on the augmented-sixth interval as the defining feature of augmented-sixth chords, Harrison (1995) notes this interval is "nonvalent and without any inherent position-finding powers," a view echoed by Louis and Thuille (Schwartz 1982 [1913]). Conversely, Harrison describes the diminished fifth and seventh (and inversions) as "supremely strong position-finding intervals," ranking them as fundamental dissonances owing to their univalence. Each augmented-sixth chord likewise contains one, or both, fundamental dissonances; these univalent intervals imbue augmented-sixth chords with local dominant function when they resolve idiomatically. Historically, theorists from Weber, Marx, and Riemann, to Schenker, also understand augmented-sixth chords as alterations of vii°[(7)] or V[7] chords, usually applied to V.

Recognizing the proximity between augmented-sixth and dominant-functioning chords also more easily accounts for the increasingly variations that arise in late nineteenth-century music, wherein the augmented-sixth interval occurs between unconventional scale degrees or fails to resolve idiomatically. Prioritizing fundamental dissonances as delineators of harmonic function offers the means of articulating the tonal function of these perplexing chromatic chords with greater clarity and consistency.

Kirnberger, Kollmann, and the Reconceptualization of Non-Harmonic Tones
Ryan Kosseff-Jones, Geneva, NY

A.F.C. Kollmann positioned himself in the history of music theory by claiming that his *New Theory of Harmony* (1806) offers an original and unprecedentedly thorough explanation of non-harmonic notes. Specifically, he characterizes that accomplishment as a dramatic improvement over the treatment of non-harmonic notes given in his earlier *Essay on Musical Harmony* (1796), which he downplays as having merely adopted Kirnberger's treatment. Modern scholars have agreed with Kollmann's assessments, but this paper disputes the accepted view through a close examination of the treatment of non-harmonic notes in the *New Theory*, the *Essay*, Kirnberger's *The Art of Strict Musical Composition* (1771), and Kirnberger/Schulz's *The True Principles for the Practice of Harmony* (1773).

In this reassessment, it is shown that 1) Kirnberger's *Art* is often narrowly credited for its important concept of "non-essential" dissonance, while it actually embraces a wider array of concepts for non-harmonic notes, 2) Kirnberger/Schulz's *True Principles* offers an incomplete view of Kirnberger's treatment of non-harmonic notes and emphasizes the concept of non-essential dissonance (possibly predisposing readers to a similarly circumscribed view of the *Art*), 3) Kollmann's initial *Essay* does not merely regurgitate Kirnberger, but instead should be credited for redefining "accidental dissonance" to include any non-harmonic note (a much broader definition than that employed by Kirnberger and Kirnberger/Schulz). Kollmann's later *New Theory* should receive credit not for the breadth of its theory, but rather for presenting concepts of non-harmonic notes in a newly unified and efficient way.

The Practical Thoroughbass: Generalization, Individualization, and the Changing Postclassical Style
Andrew Malilay White, University of Chicago

Is it possible to learn thoroughbass without memorizing any written rules? This paper examines two Viennese thoroughbass treatises that lack any written rules: Simon Sechter's *Generalbass-Schule* (1835) and Carl Czerny's *Studien zur praktischen Kenntniss aller Accorde des Generalbasses* (1854). Instead of listing rules and providing skeletal basslines, the treatises present only fully-realized chord progressions—and in Czerny's case, even some exercises that could be described as idiomatic piano etudes. This represents an approach to thoroughbass pedagogy that I term the "practical thoroughbass," which I claim played a driving role in determining the postclassical musical style. The students of Sechter and Czerny (who include Schubert and Liszt) may owe their flashiest and most idiosyncratic effects to the practical thoroughbass.

Using the language of cognitive skill acquisition, this paper describes how the two treatises differ in method from the more familiar eighteenth-century partimento tradition. Unlike their eighteenth-century precursors, Sechter and Czerny do not need their readers to become adept at realizing a bass with figures. But despite this dissimilarity, the practical thoroughbass and the partimento tradition share the goal of turning thoroughbass rules into a broad structure for elaboration. I then show how Sechter and Czerny musically prioritize two aspects of skill acquisition: example-centeredness and generalization. The practical thoroughbass represents just one position in a century-long debate over whether thoroughbass was a performerly skill, a compositional theory, or some hybrid of both.

Pitch and Rhythm in Hip-Hop
Ciro Scotto (Ohio University), Chair

Vocal Pitch in Rap Music
Robert Komaniecki, Appalachian State University

When analyzing rap music, vocal pitch is likely not the first parameter one considers. Indeed, one of the defining aspects of the rap genre is its tendency to eschew the precisely pitched vocals heard in nearly all other popular music. However, there are countless examples of rap tracks in which MCs are consciously pitching their vocals using a variety of techniques, emphasizing pitch in a way that paradoxically seems at odds with one of the very defining characteristics of rap music.

In this paper, I contend that pitch plays an important role in the structure and delivery of rap flows. I demonstrate the ways in which rappers manipulate pitch to create a structural parameter that can operate independently from or in tandem with rhythm and rhyme. Furthermore, I argue that pitched vocals take a wider array of forms in rap music than in other genres of popular music, ranging from carefully-pitched singing of modern rap flows to the imprecise and exaggerated declamatory features of speech that distinguished rap from other genres during its formative years. I assert that all rap flows can be classified as using pitch in one of five different ways, with each technique carrying its own unique set of analytical implications.

Development and Application of Triplet Flow in Rap Music
Timothy Roth, University of Manitoba

In today's popular hip-hop, it is common to hear lyrics delivered primarily in triplet subdivision, seemingly in contrast to the duple feel of the underlying beat. This so-called "triplet flow," while present in hip-hop since the 1980s, has found widespread popularity and has been subsequently refined and developed in recent popular rap music. The aurally distinct nature of triplet flow allows for a convincing case study about trends and developments of rap flows. This paper presents the results of a corpus-based analysis consisting of 519 rap songs released between 2012 and 2017. Three subsets of triplet flow are established, based on varying accent patterns, and their usage is tracked across the six-year window in order to characterize the growth and development of triplet flow. Specific examples of triplet flow are analyzed, including Drake's "Grammys" (2016) and Logic's "Black SpiderMan" (2017). The musical applications of triplet flow are discussed, particularly in reference to the types of flow proposed by Krims (2000).

Metric Manipulations in Hip-Hop and R&B Sampling Practice
Jeremy Tatar, McGill University

When one song samples another, the relationship that emerges has typically been understood intertextually, as a culturally grounded instance of quotation, allusion, or signifyin(g). To date, however, few analyses have engaged directly with the musical transformations that result from the sampling process, particularly with respect to metric organization. Similarly, although recent typologies of sampling offer resources for classifying samples according to their length, textural location, degree of repetition, and the genre of their source (Sewell 2013, Ratcliffe 2014, Williams 2014), they are less suited for discussion of how these samples function as musical elements.

Drawing on examples by Pusha T, A Tribe Called Quest, Jeru the Damaja, and Frank Ocean that feature prominent "structural samples" (Sewell 2013, 26), I theorize four categories of sample-transforming techniques that can be employed singly or in combination: *Tempo shift*, which can also affect pitch and timbre; "*Chopping*," the cutting-up and reordering of a sample; *Truncation*, the reduction of a sample's metric unit; and

Recontextualization, involving a re-casting from one meter to another. Transcription-based comparisons between these samples and their sources (which range from Jack DeJohnette to MGMT) reveal how producers use these techniques to both articulate and problematize features such as phrase structure, hypermeter, and metric accent. The craft of rappers in manipulating rhythmic and metric structures in their vocal delivery, or "flow," is by now well recognized; this paper turns our attention to a similar craft in their sample-based accompaniments.

2:00–3:00

Listening to Topics
Jan Miyake (Oberlin College and Conservatory), Chair

Attending to Fragmented Serenade Topics
Matthew Boyle, University of Alabama

Early nineteenth-century Italian opera has long been considered sweet: featuring sweet melodies, harmonies, plots, and verse. Sweetness was central to its immediate reception, shaping the discourse and the affective experiences of bel canto opera. Stendhal, for instance, likened Rossini's music to lusciously ripe fruit. Adolf Bernhard Marx found a concert of Mercadante arias to leave the bitter "aftertaste of lots of sugar."

Yet the production of this sweetness has largely been overlooked. I propose that the sweetness of *ottocento* opera was associated with particular timbral and harmonic effects, including pizzicato strings, sustained winds, parallel thirds, and modulation to mediant harmonies. Although these effects saturated early nineteenth-century Italian opera, they were native to and taken from the vocal serenade, a genre routinely praised for sweet melodies.

These effects can appear in conjunction with serenade arias, as an isolated musical topic, or as an instance of what I call a fragmented serenade. I use this term for passages where the marked timbral effects of the serenade appear isolated from other generic signifiers. Fragmented serenades might not evoke serenading scenes, yet they still preserve scripted listening strategies for vocal melodies and their associated affective responses. Traces of this listening practice can be observed in nineteenth-century reviews. Like the creation of sugar, the process of serenade fragmentation is a sort of sonic refinement. It intensifies the affective meaning of the serenade, while simultaneously obscuring its origin. Serenade fragmentation thereby acts as a musical sweetener for nineteenth-century audiences.

Stravinsky's Neoclassical Apprenticeship: Galant Influences from the *Octet* to *Apollo*
Dan Viggers, Washington University in St. Louis

Although Stravinsky counted *Pulcinella* (1920) as his "first discovery of the past," scholars have rejected the notion that the galant style of *Pulcinella's* sources significantly influenced his subsequent neoclassical works. In this presentation, I will reveal the importance of galant style in shaping Stravinsky's neoclassical works from 1920–1928, including the *Octet*, *Concerto for Piano and Winds*, *Piano Sonata*, *Serenade in A*, and *Apollo*.

My discussion of Stravinsky's use of galant-era conventions will focus on two forms of borrowing. First, Stravinsky's direct borrowing from specific galant works. In the *Octet*—Stravinsky's first neoclassical work following *Pulcinella*—I will demonstrate the possibility that Stravinsky returned to the works of Domenico Gallo (then attributed to Pergolesi) for material in the work's first movement. Second, I will demonstrate Stravinsky's use of what I call "Prototypical Galant Melodic Structure": a galant-era conventional sequence of a tonic-emphasizing opening statement followed by a Prinner response—a ubiquitous pattern defined by a

descending melodic line of ^6-^5-^4-^3 above a bass on ^4-^3-^2-^1. More than 50% of *Pulcinella*'s individual movements and each neoclassical work up to *Apollo* feature this structure.

Stravinsky's stylistic continuity from *Pulcinella* to *Apollo* exists not just in his borrowing of galant conventions, but also in his compositional techniques. These techniques include his superimposition of independent lines, subverted resolution of the conventional stock patterns, and modern approaches to modulation and harmonization. The overall analysis provides insight into Stravinsky's approach to composition, the cultural aesthetics of the time, and the subtle evolution of his mature neoclassical style.

The Hymn as a Musical Topic in Haydn's Symphonies: Stylistic Sources and Expressive Trajectories
Olga Sánchez-Kisielewska, University of Chicago

Scholars regularly describe the opening themes from the slow movements of Haydn's Symphonies Nos. 75, 87, 88, and 98 as "hymn-like," even crediting Haydn as the creator of this theme-type (Rosen 1971). Despite frequent observations on the similarities between themes, little attention has been paid to the comparative study of these entire movements. This paper focuses on this set of symphonic hymns as a case study to address two issues central to the theory of musical topics: first, the necessity (and difficulty) of properly grounding topics in the musical landscape of their time, and second, how the interaction of topics with one another and with other elements of musical structure can generate diverse expressive trajectories.

I demonstrate that these themes resemble, rather than church music, the musical style of opera scenes depicting ritual actions performed by female or supernatural cohorts. More precisely, the Largo from Symphony No. 88 features remarkable similarities with Gluck's *Orphée et Eurydice* and the Adagio of Symphony No. 98 presents close parallelisms with Haydn's own rendition of the Orphic myth. In each of the symphonies mentioned above, Haydn revisits the same theme-type but adapts it every time to an entirely different formal design (theme and variations, monothematic and bi-thematic sonata form, and sonata-rondo), highlighting diverse meanings generated by the hymn topic through expressive oppositions. Because these movements feature remarkably similar themes but maximally divergent formal layouts, analyzing them as a group illustrates Haydn's oft-invoked authorial voice and the productive interplay between topics and compositional strategies.

Mental Models
Daniel Shanahan (Ohio State University), Chair

What Is Going on in Someone's Head When They Do Melodic Dictation?
David John Baker, Louisiana State University

Teaching melodic dictation involves instructing students on what and where to direct their attention in order to improve their abilities. This process has been formalized by Gary Karpinski into four discrete steps of hearing, memorizing, understanding, and notating, which help students break down the overwhelming amount of mental processes they need to coordinate in order to successfully complete a melodic dictation (Karpinski, 2000). As students' experience increases, they are able memorize larger chunks of music and become more able to dictate music they once found difficult. But what is going on in the students' minds over the course of aural skills instructions that allows for this growth?

This paper puts forward a computational, cognitive model of melodic dictation with the goal of helping explain how students improve at melodic dictation. The model is based in research from both cognitive psychology and computational musicology and incorporates relevant theoretical aspects such as working memory and the structure of the melody itself. I accomplish this by walking through an iteration of the model using a cadential passage from Schubert's Octet in D Major (D. 803). I demonstrate how modeling the

cognitive decision process during melodic dictation helps provide a precise framework for pedagogues to understand students' inner cognition during melodic dictation and can create a more linear path to success amongst students.

A Neurocognitive Approach to Modeling Cross-Sensory Perception in Music and Multimedia
Sarah Louden, Hofstra University

Crossmodal associations are nonarbitrary relationships that the brain draws between features or dimensions of different sensory modes. Examples include audio-visual associations such as loudness-brightness and pitch-height. The brain also recognizes *intramodal associations* between features of the same sensory mode, such as pitch-tempo and brightness-angularity. Modal associations have recently become an important research topic in cognitive neuroscience and psychology because of the significant influence they have on perception and the broad implications outside of those fields. In music, this research offers a means for describing analytical relationships between both musical and multimedia parameters. However, because of the specific nature of these studies, which often focus on only one parameter in a single context, it is difficult even for interdisciplinary scholars familiar with the research to navigate it and apply it in a broader way to analysis.

This paper synthesizes relevant research in the cognitive literature and presents a tool for modeling multiple crossmodal and intramodal relationships within a single space. I begin by presenting an interactive online resource that can be used to reference modal associations by parameter. Based on shared features and transitive and reciprocal relationships, I argue that these associations can be broadly sorted into three categories or dimensions and modeled using a tool I've created called the *Crossmodal and Intramodal Association (CIA) Model*. I close by discussing some of the implications of congruent and incongruent associations and potential applications in analysis, composition, and performance.

A Model for Measuring Physical Balance in Contemporary Piano Works
Michèle Duguay, The Graduate Center, CUNY

Drawing on Lochhead's (2016) reconceptualization of structure in contemporary music, my paper argues that physical balance works along other musical parameters, such as form and pitch, as a mode of structuring contemporary works. This approach shifts the analytical focus from the score to the pianist's bodily experience, building on Cusick's (1994) call for a critical engagement with the performing body and on Montague's (2012) and Cizmic's (2011) emphasis on the pianist's sensations. To engage with this aspect of musical organization, I propose a method for analyzing the sense of physical balance—understood as shifts in *center of gravity*—experienced by a pianist. I first outline a methodology that models the way in which recent piano repertoire creates tension and resolution for the pianist. This occurs through shifts in center of gravity as both hands travel across registers. A body experiences a sense of tension when it sits in an unbalanced state, leaning, for instance, towards the left of the keyboard. It strives towards resolution, which is attained by returning to a balanced center of gravity. Then, I illustrate the methodology through analyses of recent compositions that foreground these issues: *Dux* (2017) by Zosha Di Castri, *Garage* (2007) by Alice Ping Yee Ho, and *Klavierstuck II* (2004) by Beat Furrer.