ABSTRACTS

The creation of structural hierarchies in the orchestral music of Tristan Murail
Joshua Groffman (Sarah Lawrence College)

This paper offers new strategies for hearing the structures of spectral and post-spectral pieces. Though spectralism’s harmony has received much analytical attention, its innovations in the temporal/formal realm are the more significant achievement. Structures arise not solely through harmonic progression, but via texture, timbre, surface motivic material, and especially, control of formal proportions. I examine three pieces by Tristan Murail that, to varying degrees, articulate complex but perceptible large-scale foreground-middleground-background hierarchic structures.

Each piece opens with bell-like orchestral attacks. These establish the importance of directed process to the spectral soundworld; additionally, because the time between attacks is arhythmic, our perception focuses on a middleground meter in which we perceive time-spans of 10-30 seconds as a single “beat”; the successive attacks, each evolving perceptibly from the previous one, weld the beats into a unified “bar” lasting several minutes.

_Désintégrations_ (1982) is an example of Kramer’s moment form, in which each “bar”/section is self-contained. _Gondwana_ (1980) contains fewer discrete sections, which overlap to form a clear dramatic shape, but it is surface salience factors rather than deep structure that create it. _Time and again_ (1985) contains a foreground rich in thematic elements that complements its middleground temporal strata; as these elements recur in shifting contexts, they unify our hearing into an unfolding totality. At the deepest level, there is a single structural upbeat; timbre, texture, and formal proportions unite with harmony—a statement of the pure overtone series, previously withheld—to articulate a structural downbeat at the climactic moment.

_Prestimagination: Interactions between Performance, Compositional Design, and Aesthetic Priority in Kaija Saariaho’s _Sept Papillons_._
Christopher Gainey (University of British Columbia)

"Harmony," writes Saariaho, "provides the impetus for movement, whilst timbre constitutes the matter which follows this movement. On the other hand, when timbre is used to create musical form it is precisely the timbre which takes the place of harmony as the progressive element in music." This statement implies that timbre and harmony are conceptually separate domains—a useful guideline for composers who explore the possibilities of timbre as a form bearing element in
their music. From an analytical perspective, however, the notion that timbre may "take the place of" harmony glosses over the flexibility with which listeners cognitively process incoming auditory information according to musical context.

In this paper, I begin by detailing how the physical and cognitive challenges facing the performer inform compositional design in the first two pieces from Saariaho's Sept Papillons. I then discuss how the structures revealed through this analytical perspective reflect Saariaho's aesthetic preoccupation with timbre and harmony and suggest the appropriateness of "holistic" versus "atomistic" listening in these works. My analytical approach to these pieces reflects what I imagine to be an important aspect of Saariaho's compositional process—a careful consideration of how practical concerns of instrumental technique might align with her aesthetic priorities. Said another way, the prestidigitation that performers use to access the timbral diversity of their instrument may be a lens through which Saariaho is able to focus her musical imagination towards an exploration of what Gérard Grisey refers to as the "liminal" zone between timbre and harmony.

Blurring into the Distance: Harmonic Overlaps in Schumann and Brahms
Diego Cubero (University of North Texas)

A blurry quality characterizes the distant in Romantic paintings. Whereas the objects in the foreground are sharply delineated, those in the background delicately merge onto one another, their boundaries vanishing into the horizon. In his first essay as the editor of the Neue Zeitschrift für Musik, Franz Brendel compared the blurry backgrounds characteristic of Romantic paintings to Robert Schumann’s practice “of playing with a constantly depressed pedal, such that the harmonies do not emerge with particular clarity.” This paper expands on this connection. The focus, however, is in those cases where harmonies blur together as a product of composed out chord overlaps, rather than from the use of pedal, in the music of Schumann and Brahms.

The overlaps I discuss arise from rhythmic dislocations where the melody lags behind the bass. The process is similar to that which produces a suspension, except that in these cases it is not clear which harmony is controlling the given time span. The result is not an either/or situation, to use Carl Schachter’s terms, but rather what Peter H. Smith refers to as a both/and scenario where the two harmonies merge within a single time span.

For a compositional style in which chords usually occupy their own discrete time spans, the overlapping and blurring together of harmonies is structurally and expressively marked. Standing at the threshold between the bounded and boundlessness, these blurred passages imbue the music with an ethereal, Romantic quality and awaken a feeling of quiet transcendence.

Transformational and Neo-Riemannian Theories as Conceptually Segregated
Benjamin Hansberry (Columbia University)

Transformational theory is usually presented as a model of musical experience and an alternative to more static, intervallic approaches (Lewin 1993). Transformational theory was influential in the development of neo-Riemannian theory, with the Tonnetz conceived as a kind of transformational network (Cohn 1998). But despite its experiential origin, critics of neo-Riemannian theory have recently highlighted an absence of musical phenomenology in neo-Riemannian analyses (Rings 2011, Harrison 2011). In this paper, I argue that both theoretical and phenomenological concepts (broadly construed) underlie transformational and neo-Riemannian theories, with phenomenological concepts sometimes playing a covert role (explaining their perceived absence).
An experiential/theoretical distinction is commonplace in discussion of music-theoretical methodology, and I present an account of these that involves a combination of their underlying concepts and analytical practices. Understanding what type of concepts are in play and when clarifies the scope of any given analysis, determining the kinds of claims that analysis can make and what evidence properly supports them.

Lewin’s analysis of Stockhausen’s *Klavierstück III* provides an exemplary instance of this conceptual admixture. I provide a commentary on this analysis, arguing that it consists of three basic steps: (1) phenomenological reflection that sets the basic terms of the analysis, (2) translating of these experiential entities into theoretical ones and working out their formal relationships, and (3) translating of the results of formal analysis back into phenomenological terms. In an original neo-Riemannian analysis of a recitative from Verdi’s *Macbeth*, I show how awareness of the three-step process enhances my analytical interpretation.

**In the French Style:**

**Metric Types and Embodied Meaning in Tchaikovsky's *Sleeping Beauty***

Matthew Bell (University of Texas, Austin)

This paper addresses the expressive coordination of choreography and music in excerpts from Tchaikovsky’s *Sleeping Beauty*, op. 66. Using Stepanov notation of Marius Petipa’s choreography, I consider how musical meter may be interpreted and embodied by the dancers, and how bodily and musical rhythms combine in meaningfully expressive ways. I am aided by Christopher Hasty’s rhythmic theory, William Rothstein’s recent work on national metric types, and Lawrence Zbikowski’s model of “cross-domain mapping.”

I pay special attention to the presence of Rothstein’s “Franco-Italian” metric type in *Sleeping Beauty*, suggesting that Tchaikovsky and Petipa exploited its anacrustic quality to a variety of expressive ends. I will introduce this metric type through excerpts that feature Prince Désiré, before moving to a detailed analysis of the “Bluebird” *pas de deux* from Act III. A touchstone of the classical ballet repertoire, this *pas* is simultaneously a display of technical virtuosity and an interpretation of the eponymous French fairy tale, in which the bluebird teaches a princess to fly. I argue that the phrase rhythm of the first variation and coda from this *pas* can and should be heard and performed as “Franco-Italian,” given the work’s period performance tempi, the iconic movements of Petipa’s choreography, special voice leading features, and dramatic premise.

Although this paper touches upon only two embodied interpretations of one metric type, it is intended to open the door to a broader consideration of rhythm’s role in studies of musical meaning and narrative, while also drawing our attention to an overlooked repertoire rich in such meaning.

“...Eternity Which is Forever Still”: Shaping Time with Gestures in Andriessen’s *De Tijd*

Mariusz Kozak (Columbia University)

In this paper, I draw on the phenomenology of Merleau-Ponty to revisit the matter of musical time, and show that rather than existing metaphorically in the music, time is a literal dimension of direct experience, found in the domain of listeners’ gestural interpretations of musical sounds. From this perspective, I propose that our experience of time is constituted in how we cope with objects and events in our environment, including music: through our actions we maintain temporal alignment with events happening around us, in a process that I call *temporal calibration*. Two
kinds of calibration are evident in listeners’ movements: *synchronization* and *coordination*. In this paper, I argue that it is these bodily experiences that give us a window into how listeners understand the temporal unfolding of musical sequences. I illustrate this point with an analysis of Andriessen’s *De Tijd*, a piece that manifestly addresses matters of time and eternity. I focus on its timbral characteristics and how they “fill” intervals of time for the listener, and propose that the different gestures they engender create disparate experiences of time: one unfolding in the present, and the other anticipating future events. I posit that by foregrounding two drastically different musical elements—elements that invite drastically different bodily states—Andriessen gives the listener an opportunity to experience temporal anxiety between eternity and time in profoundly visceral terms.

**Teaching Asymmetrical Meter With Eastern European Folk Dancing**
Peter Silberman (Ithaca College)

Students often have difficulty performing compositions written in asymmetrical meters. Asymmetrical meters, such as 5/8 and 7/8, usually are performed as groups of twos and threes. As a result, beats in asymmetrical meter vary in length – beats consisting of two notes are shorter than those consisting of three.

While beats of *equal* length are ubiquitous in Western tonal music, *unequal* beats are common in Eastern European folk music, particularly the traditional music of Bulgaria. This presentation will demonstrate how dance can be used to familiarized students with asymmetrical meters and thus improve their performance of music written in such meters. Since many students have had few opportunities to move to asymmetrical meter, introducing Eastern European folk dancing to an aural skills class provides students with a physical experience on which they can draw in later performance.

In this presentation I will discuss the challenges students face in learning music in asymmetrical meter, making reference to recent theories of rhythm and meter that explain such challenges. I then will provide an overview of Bulgarian music and dance, with musical and video examples. Next, I will explain a simple folk dance I constructed to go along with a recording of a Bulgarian dance tune in 7/8 (3 + 2 + 2) meter, in which steps reinforce the subdivision, beat, measure, and phrase structure, and then will invite the audience to join me in performing this dance. I will conclude by evaluating the efficacy of employing this activity in an aural skills class.

**Listening to Formal Functions and Dialogic Form: Towards a Recompositional Reconciliation**
William O’Hara (Harvard University)

Taking seriously the philosopher Peter Szendy’s wish to “make [his] listening *listened to*” (Szendy 2008, 5), this paper uses recomposition to explore how the figure of the listener operates in the *Formenlehren* of William E. Caplin (1998) and James Hepokoski & Warren Darcy (2006). Though often contrasted as opposites, both theories explicitly locate the listener and her background knowledge of musical repertoire as the site of interpretation, forging a middle ground between structural analysis, and cognitive- or probability-based theories of perception. Both methods also use recomposition to dramatize moments of music that defy normative expectations. In addition to building or reinforcing the theories, these recompositions are the product of subtle acts of listening: the ability to hear an ideal type within an expanded phrase, or imagine a medial caesura when none is forthcoming. Through my own analysis and recomposition of the second movement of Haydn’s
Symphony No. 46, I show how recompositions—whether acting as stepping stones to fully realized analyses, or as critical responses to musical or aesthetic problems—can serve as traces of a deep engagement with music, recording a tentative or counterintuitive “hearing” of a work and making it legible for others.

**Shostakovich’s Dominants**
Simon Prosser (City University of New York)

In this paper I consider the dominant function in Shostakovich’s music and its relation to some of the “altered diatonic modes” posited by some Russian music theorists for Shostakovich’s music. Though Shostakovich uses traditional dominant chords, many of his dominants are unusual in their structure and use of chromaticism, often containing lowered scale degrees like $b2$ and $b4$. Such lowered degrees are characteristic of many of the altered diatonic modes that some Russian theorists have identified in Shostakovich’s music. Following Russian modal theorists who view Shostakovich’s modes as derived from diatonic ones, I represent them as various stretchings southward of the basic diatonic system on an unconformed Tonnetz in order to map the harmonic functions of these lowered degrees and reveal their dominant-function potential that can be expressed in a variety of sonorities. Drawing examples from his symphonies and chamber music, I analyze Shostakovich’s use of such modal dominant-function sonorities. I show how Shostakovich’s dominant sonorities arise from (and give rise to) some of the altered diatonic modes described by Russian music theorists. This will open the door to a broader and more systematic consideration of harmonic function in Shostakovich’s music, and show how Russian ideas about mode can be synthesized with Anglo-American theories of harmony.

**How to Forge a Missing Link:**
Winfried Michel’s “Haydn” and the Style-Historical Imagination
Frederick Reece (Harvard University)

Forged musical works are surprisingly common. Since Guido Adler’s (1911) assertion that authorship and historical periodization are always legible in the styles of works themselves, authentication has been haunted by expert endeavors to court authorial misattribution through compositional mimicry. This paper explores one such case from 1994, when, at the height of the new-musicological moment, the news broke that six recently rediscovered Haydn sonatas (dubbed “The Haydn Scoop of the Century” by H. C. Robbins-Landon) were not by Haydn at all.

The forgeries, produced in the early 1990s by the German pedagogue Winfried Michel, were compelling not only because they were based on 4-measure phrases recorded in Haydn’s *Entwurfkatalog*, but also because these incipits corresponded to a crucial yet ill-documented period in Haydn’s chronology. The radical technical innovations posed by the Sonata Hob. XVI: 20 of 1771 have no precedent in the authenticated corpus of Divertimento Sonatas dated prior to 1767, making the discovery of lost works from the 1767-1770 “missing-link” period a style-historical holy grail.

In exploring how Michel’s sonatas rang true against a background of established authentication methodologies and theoretical accounts of the Galant and *Sturm und Drang* paradigms, my own detailed stylistic analyses of the forgeries are complemented by original interviews with Sotheby’s manuscript specialists whose testimony was responsible for their falsification. Reading Michel’s sonatas as artifacts of aesthetic prejudice, the practice and reception of forgery is adopted as a lens through which to contemplate the style-historical imagination as a construct that continues to shape musicological discourse.
Charles Ives’s Democratic Dissonances
Chelsey Hamm (Kenyon College)

Charles Ives’s compositional revision process has recently been the subject of scholarly scrutiny. Ivesian critics have portrayed this revision process as a “systematic pattern of falsification” (Solomon 1987, 463), and have claimed that Ives added dissonances into his completed scores years after they were composed, “turning octaves into sevenths and ninths, and adding dissonant notes,” (Perlis 2002, 138). In general, Ives scholars have reacted defensively to these charges. However, I claim that Ives did indeed augment his compositions with additional dissonances, as Carter’s accounts and manuscript evidence demonstrate. Additionally, I show this is the result of Ives’s negative association of tonal techniques with 19th-century Germanic musical practices. I trace this association from the earliest stages of Ives’s career to its peak in October 1914 with the German invasion and “rape” of Belgium, reflecting the climate of American hostility towards German culture during World War 1. I use sketches of a previously unpublished song, “Sneak Thief,” to demonstrate that, to Ives, “German tonality” at this time stands for autocratic dishonor, while aspects of atonality represent democratic righteousness. I conclude by offering a new listening system that focuses on what can be gained from purposefully listening to Ives’s “atonal” compositions tonally, providing a way to hear Ives’s borrowings as musical objects whose morality has been enhanced through the deliberate camouflage of their tonal aspects.

Ravel’s Octatonic Scripts
Damian Blätter (Rice University)

This paper investigates the use of the octatonic scale as a framework for pan-triadic motion in several works by Ravel. In these pieces, motion within or across chord/key cycles by minor third, or the more abstract linking of triads through shared membership in specific octatonic scales, informs the work’s tonal trajectory; these pan-triadic scripts then interface with and are animated by octatonic scales and sonorities at the musical surface. Ravel’s structural use of octatonic spans his compositional output; works discussed include the first movements of the String Quartet, Piano Trio, and 1927 Violin Sonata, Introduction et allegro, À la manière de… Chabrier, and the Scherzo from the Piano Concerto for the Left-Hand. Analyzing these octatonic scripts moves discussion of Ravel’s use of octatonic scales beyond the surface details to which research has generally been confined, and also suggests a particular thread of technical inheritance present in Ravel’s professed admiration for the music of Liszt, Schubert, and Chopin.

More than a Tritone: A Set Theoretic Analysis of Leonard Bernstein’s “The Rumble” from West Side Story (1957)
Thomas Posen (University of New Mexico)

In Leonard Bernstein’s 1957 “Introduction to Modern Music” telecast, Bernstein claimed that a “great modern composer” could use “the same old-fashioned notes that music has always used, and use them in a fresh way.” In this paper, I examine how Bernstein followed his own advice composing West Side Story the same year. In particular, I offer a perspective on Bernstein’s “fresh” and “modern” pitch structures in an analysis of “The Rumble” using set-theoretic tools. Bernstein considered tonality “built into the human organism,” and praised composers who attempted to “modernize” it. Although many analyses of West Side Story focus on the tritone alone as the unifying
musical motive, I instead interpret the tritone in the context of a three note set class 3-5 (016) and show how Bernstein realizes this set class to create ordered motives and harmonies in a variety of contexts. I demonstrate how Bernstein himself modernized “old-fashioned” pitch collections by utilizing specific aspects of set-class 3-5, particular supersets, and certain transposition schemes to create centric referential pitch collections. Furthermore, by appropriating set theoretic tools to analyze the popular American musical, I highlight commonalities between West Side Story, music of the Second Viennese school, Jazz and American Popular music, and music by Neoclassicist composers, Stravinsky in particular.

**Bach's “Gapped” Voicings, Expressive Meaning, and Part-Writing Pedagogy**  
Andrew Jones (Yale University)

Chord voicing and spacing instructions from undergraduate harmony textbooks (Laitz (2008), Aldwell & Schachter (2003), and Gauldin (2004)) urge against voicings where more than an octave separates the soprano and alto or alto and tenor in four-voice, Bach-style chorale writing. These spacing guidelines are the best possible single heuristic to give students: using corpus analytic methods based on those pioneered by Quinn and Mavromatis (2010, 2011), I show that the vast majority of voicings Bach employs in the chorales can be described in precisely this way. But these descriptions neglect to mention that what I term "gapped" voicings still appear in the chorales more than 400 times \{ sometimes at the most striking rhetorical moments of a given chorale. How can we attune our students to the circumstances under which such voicings might prove effective? How can we make accessible the expressive meaning of "unusual" voicings?

This paper aims to typologize Bach's gapped voicings, rendering common techniques and potential modes of expressiveness accessible to undergraduate part-writers. Corpus methods are used here to identify passages of contextual and expressive interest, rather than to suppress them under broad statistical heuristics. Accordingly, I conclude with a call to use corpus analytical methods to help make the meaningful, heterogeneous remainders left behind by our rule-based heuristics speak in a data-driven and pedagogically-productive way.

**Harmonic Function in Popular Music**  
Christopher White (University of North Carolina, Greensboro) and Ian Quinn (Yale University)

This paper presents an empirical model of harmonic function in pop/rock music. Using machine-learning techniques to analyze a corpus of songs from the “Billboard Hot 100,” we find that four primary functional categories ideally describe this repertoire. The model is characterized by several novel features. First, it does not rely on a traditional three-function foundation: while much scholarship has attempted to adapt pop music’s idiomatic practices to traditional functional models (e.g., Doll’s “rogue dominants,” Biamonte’s “Double Plagal progression,” or Nobile’s dominant IV chords), our data-driven approach has no such predispositions, deriving a model solely from the properties of the corpus. We will argue that this model is particularly attractive due to its applicability to analysis, paying focusing on Meat Loaf’s 1977 “Paradise by the Dashboard Light.” We will end with a discussion of the pedagogical and sociopolitical benefits of this model: a corpus-derived model mitigates the hegemonic influences of the Western-European common practice, an invaluable asset to music theory teaching and academic discourse.
L'Apothéose de Rameau:  
A Survey of Henri Pousseur’s “technique des réseaux” (“Network Technique”)  
André Brégégère (City University of New York)

The remarkable flourishing of Network Theory within the North-American music-theoretical discourse of the last two decades has largely bypassed the important precedent of Belgian composer Henri Pousseur’s (1929–2009) “Network Technique” (“technique des réseaux”), a diverse series of hermeneutic procedures based on the use of interval cycles and networks, set forth in the 1960s and continuously expanded upon during the remainder of Pousseur’s career.

My paper will offer a survey of Pousseur’s Network Technique, beginning with a brief review of Pousseur’s seminal article, “L’Apothéose de Rameau” (1968), in which the composer introduces a series of original harmonic techniques based on the manipulation of interval-cycle pairs and interval networks, followed by a series of analytical vignettes from three representative works by Pousseur: *Votre Faust* (1968), *Icare obstiné* (1972), and *Les Litanies d’Icare* (1993). In the course of this survey, I will also highlight some remarkable, and heretofore largely unnoticed, parallels with George Perle’s harmonic research, as well as with more recent North-American scholarship on Network Theory.

Music Cognition in Scottish Common Sense Music Theory, 1770-1786  
Carmel Raz (Yale University)

Eighteenth-century Scottish music theory constitutes a distinct theoretical tradition intent on applying insights on perception derived from Common Sense philosophy toward solving problems of harmony, rhythm, and tuning. Indeed, Scottish theorists including John Holden (1735-1771), Walter Young (1745-1814), and Thomas Robertson (died 1799) explicitly formulated many key insights commonly associated with contemporary music cognition. To borrow anachronistic terminology, these findings include a proposed temporal limit on entrainment at two seconds, the phenomenon of subjective rhythmization—i.e. our involuntary tendency to group beats into pairs—and the cognitive strategy of chunking, the grouping of larger numbers of items into a limited number of sets.

The Common Sense School theorists are unique for assigning agency to the mind, the ear, and the faculties of memory and attention in determining perceived sounds and rhythms. Building a system of music theory that regarded harmony and rhythm as governed by an innate cognitive preference for “isochronous parcels,” they came to radical conclusions about the nature of musical hearing. In this paper I focus on two thematic strands in their work: theories of rhythm and active perception, and theories of harmony and divided attention. The remarkable similarities between Scottish Common Sense music theory and a number of principles espoused by contemporary music cognition can serve to further our understanding of continuities and ruptures in conceptions of rhythm and harmony within Western Classical repertoires.