SMT2019 COLUMBUS



42nd Annual Meeting November 7-10 Hyatt Regency

SMT 2019 Annual Meeting

Program Committee

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Upcoming Annual Meetings

2020: (AMS/SMT) Minneapolis, MN, November 5–8

2021: Jacksonville, FL, November 4–7

2022: (AMS/SMT/SEM) New Orleans, LA, November 10-13

Contents

iv	Special Events and Meetings, Schedule-at-a-Glance
v	Interest Group Meetings and Receptions
vi	Helpful & Emergency Information
vii	List of Sponsors, Exhibitors, and Advertisers
ix	List of Donors
1	Program
27	Advertisements
46	Abstracts
Thursda	y Afternoon, November 7
46	Women, Music, Technologies
51	Dualism and Tonnetze
53	Cycles, Ostinati, Loops
55	Musical Improvisation: Cognitive Processes, Formulas, Schemata,
	and Musical Structure
59	Crossing Cultures
61	Spinning Out Bach
64	Form and Motive in Popular Film Music
Thursda	y Evening, November 7
66	Producing Virtual Spaces
68	Contrapuntal and Mensural Dissonance in the 14th Century
70	Performance: Bodies, Cognition, Technology
73	Lewin Where You Least Expect Him
Friday M	Iorning, November 8
76	Poster Session
85	Analyzing the Music of Thomas Adès
90	Contemplating and Making the Transition to Academic
	Administration
91	Psychoacoustic Dissonance and Consonance
93	Meter, Flow, and Groove in Hip Hop
95	Returning to/in Schubert's Sonata Forms
Friday A	fternoon, November 8
97	Diversity in Music Theory Pedagogy
101	Listening, Seeing, and Moving: Shifting Analytical Perspectives on
	Music and Dance
103	Improvising/Composing with Thoroughbass and Partimenti
105	Composing in Paris
108	History of Theory and the Pre-History of Music
110	Cross-Modal Perception in Multimedia and Virtual Reality
113	Forms, Fragments, and Deformation

Friday Ev	vening, November 8
115	Expansive Forms in Pop and Progressive Rock
117	Recontextualizing Meter
119	Topic and Prototype in Haydn and Mozart
121	Corralling the Chorale: Moving Away from SATB Writing in the Undergraduate Music Theory Curriculum
Saturday	Morning, November 9
126	Empirical Approaches to Black-Atlantic Groove
128	Style and Copyright
130	Rotation, Revolution, and Rubato in Opera
132	Speculative Mappings
135	The Joy of Form and the Fantasy of Theory
137	Voices
139	YouTube and Participatory Music Making
Saturday	Afternoon, November 9
141	Plenary Session: Reframing Music Theory
Sunday M	Iorning, November 10
144	Navigating Keys
146	Frets, Slides, and Feels in Punk, Rock, and Pop
148	Schemata in Klezmer and Stravinsky
150	Form in the Long 19th Century
153	Canons, Voice, and Contour in Reich
155	From the Source
157	Meter and Projection in Spectral and Post-Spectral Music
160	Analytical Approaches to Rachmaninoff
163	Index of Participants
167	Hotel Map
168	History of Annual Meeting Sites
169	Land Acknowledgement Statement

Special Events & Meetings

Thursday, November 7

5:30–6:00 pm Conference Guides (Taft B)

6:30–8:00 pm Opening Reception (Hayes; Cash Bar)

Friday, November 8

7:30–8:45 am Breakfast Reception for all students hosted by the

Professional Development Committee (Taft D)

1:00–1:45 pm Yoga with Lindsey Reymore (Garfield) 1:00–3:00 pm CV Review Session, coordinated by the

Professional Development Committee (Taft D)

5:30–6:30 pm Graduate Programs Reception with

Ice Cream Social (Hayes)

Saturday, November 9

7:00–8:00 am Yoga with Lindsey Reymore (Garfield)

12:30–2:00 pm Committee on the Status of Women Brown Bag

Open Lunch (Taft B)

2:15–3:30 pm SMT Business Meeting (Union Ballroom)
3:30–3:45 pm SMT Awards Presentation (Union Ballroom)
4:00–5:30 pm Plenary Session: Reframing Music Theory

(Union Ballroom, 2nd Floor)

Schedule-at-a-Glance

Registration/ Information/ Volunteer Check-in	Hayes Lobby	Thursday 9–6:00 Friday 8:30–5:00 Saturday 8:30–2:00
Exhibits	Hayes	Thursday 1–6:00 Friday 8:30–6:00 Saturday 8:30–6:00 Sunday 8:30–12:00
Coffee and Tea Breaks	Hayes (Union Ballroom Lobby on Saturday afternoon)	10:30 and 3:45 daily
Children's Corner	Hayes *unavailable during special events	Thursday 1–6:00 Friday 8:30–5:00 Saturday 8:30–6:00 Sunday 8:30–12:00

Interest Groups

Day	Time	Interest Group	Location
Thurs	5:45-7:45 pm	Music Informatics	Taft C
		Dance & Movement	Nationwide A
Fri	12:30-2 pm	Autographs and Archival Docs	Taft A
		History of Music Theory	Harrison
		Analysis of Post-1945 Music	McKinley
		Work & Family	Nationwide A
		Jazz	Nationwide B
	5:45-7:45 pm	Psychoanalysis	Nationwide A
		Film & Multimedia	McKinley
		Scholars for Social Responsibility	Nationwide B
		Pedagogy	Harrison
Sat	12:30-2 pm	Popular Music	Taft C
		Russian Music Theory	Taft A
		Performance and Analysis	Harrison
		Early Music Analysis	McKinley
		Music & Disability/Cognition	Nationwide A
		Analysis of World Music	Nationwide B
	5:45-7:45 pm	Global New Music	Nationwide A
		Improvisation	Taft A
		Queer Resource	Nationwide B
		Music and Philosophy	Taft C

Receptions

Day	Time	Group	Location
Fri	5:30-7:30 pm	Eastman School of Music	Garfield
		University of Oregon	Taft D
	6-8:00 pm	University of Cincinnati	Grant
		Northwestern University	Taft B
		Project Spectrum	Harding
	8–10:00 pm	Florida State University	Garfield
	9-11:00 pm	University of Chicago	Grant
Sat	6-8:00 pm	University of Michigan	Harding
	8–10:00 pm	University of North Texas	Taft B
		University of Texas at Austin	Harrison
		Oxford University Press	McKinley
	9–11:00 pm	Indiana University	Garfield
•		McGill University	Grant
		City University of New York	Harding
	10 pm-12 am	Yale University	Taft D

Helpful Information

Conference Guide: Visit guide.societymusictheory.org for instructions on how to download the guide to your phone.

Website: Visit societymusictheory.org/events/meeting2019/main for more information on the Annual Meeting.

Social Media: For up-to-date information, follow us on Twitter (@SMT_musictheory) and on Facebook (www.facebook.com/societymusictheory/).

Handouts: Presenters are requested to make available handouts in a form that is fully accessible. Digital handouts are available through the meeting app.

Accessibility: Every effort will be made to meet the requirements of all attendees.

Please note that reserved seating is provided in all session rooms.

Conference Display Materials: Free materials and literature are available at the registration desk.

Nursing Mothers Room: Located on 1st floor; visit hotel front desk for key.

Coffee and Tea Breaks (complimentary): 10:30 and 3:45 daily in Hayes.

Badgeholder/lanyard recycling: Please see registration desk.

Children's Corner: Located in Hayes; unavailable during special events and when Exhibit Hall is closed.

Volunteers: Check in at the registration desk at least 15 minutes before volunteer time.

Useful Around Town

Copy shop: Monk's Copy Shop, 47 E Gay Street; FedEx Office Print & Ship Center, 180 N High Street.

Restaurant Guide: A restaurant guide is available on our conference guide, website, and at the registration desk. Experience Columbus has an informational booth in the Exhibit Hall.

Urgent/Emergency

In the event that you are either a target of harassing behavior or are witness to harassing behavior directed at other members, the recommended procedure is:

- Report the incident to the police and hotel authorities;
- Inform the SMT President or other Board members (identified by badge ribbons);
- Where warranted, address a formal written complaint to the SMT President.

Lost and found: Available at the registration desk and hotel front desk.

Hotel Security: Dial '0' to be connected to a hotel operator.

Emergency: Dial '55' to be connected to a hotel emergency operator.

Local Police non-emergency: (614) 645-4545

OhioHealth Sexual Assault Helpline: (614) 267-7020

Emergency Room: Grant Medical Center, 111 S. Grant St., (614) 566-9000

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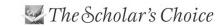
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SMT COLUMBUS 2019 PROGRAM

Sessions and meetings are open to all attendees, except where noted.

‡ denotes closed meeting/event

*denotes livestreamed session

WEDNESDAY, NOVEMBER 6

2:00-6:00	Executive Board Meeting (Garfield) ‡
6:00-7:30	Dinner for Executive Board, Publications Committee,
	Awards Committee, and Networking Committee
	(McKinley) ‡
7:30-11:00	Publication Awards Committee Meeting (Grant) ‡
7:30-11:00	Networking Committee Meeting (Harrison) ‡
7:30-11:00	Publications Committee Meeting (Harding) ‡

THURSDAY, NOVEMBER 7

8:00–12:00 9:00–12:00	Executive Board Meeting (Garfield) ‡ Peer Learning Program Workshop I: Analyzing
	Soundtracks with James Buhler, The University of Texas at Austin (Nationwide A) ‡
9:00–6:00 1:00–6:00	Registration (Hayes Lobby) Exhibits (Hayes)

THURSDAY AFTERNOON SESSION—2:15-5:30

WOMEN, MUSIC, TECHNOLOGIES (HARRISON)

Sponsored by the Committee on the Status of Women Judith Lochhead (Stony Brook University), Chair

Amelia Rosselli's Instrument: Gendered Paths and Gatekeeping in the Post-War Electronic Music Studio

Joanna Helms (University of North Carolina at Chapel Hill)

Bebe Barron and Electronic Film Composition: A Re-evaluation Reba Wissner (Montclair State University)

Receptivity via Biofeedback in Pauline Oliveros's Meditation Project

Tysen Dauer (Stanford University)

Harriet Padberg: Computer-Composed Canon and Free-Fugue Renascence

Richard Savery, Benjamin Genchel, Jason Smith, & Molly Jones (Georgia Tech Center for Music Technology)

Encoding Post-Spectral Thought: Kaija Saariaho's Early Electronic Works at IRCAM, 1982–87

Landon Morrison (McGill University)

Two Publications, One Score: A Socially Constructed Relation between Knowledge and Artifact

Kelly Christensen (Stanford University)

THURSDAY AFTERNOON SESSIONS—2:15-3:45

DUALISM AND TONNETZE (MCKINLEY)

Daniel Harrison (Yale University), Chair

A Cascading Canon System and Its Uncanny Design in Holst's "Lovely Venus"

Dustin Chau (University of Kansas)

Sigfrid Karg-Elert on the Three-Dimensional Pitch-Space Locations and Functional Meanings of the Diminished Seventh Chord

David Byrne (University of Manitoba)

Beyond the Rhine: Harmonic Dualism in Vincent d'Indy's Cours de composition musicale

Stephanie Venturino (Eastman School of Music)

CYCLES, OSTINATI, LOOPS (TAFT A)

Chris Stover (University of Oslo), Chair

A Cyclic Approach to Harmony in Robert Glasper's Music Ben Baker (Eastman School of Music)

Variable Ostinati and Hidden Cycles: Complex Grooves in Music by Craig Taborn and Kris Davis

Antares Boyle (Portland State University)

The Imposition of Meter in John Adams's Shaker Loops Clifton Boyd (Yale University)

MUSICAL IMPROVISATION: COGNITIVE PROCESSES, FORMULAS, SCHEMATA, AND MUSICAL STRUCTURE* (TAFT C)

Sponsored by the Music Cognition Group and the Interest Group on Improvisation Gilad Rabinovitch (Florida State University), Chair

Hierarchical Structural Patterns in Improvised Music: Implications for Cognition

Panayotis Mavromatis (New York University)

Galant Schemata and the Continuum of C. P. E. Bach's Musicianship

Gilad Rabinovitch (Florida State University)

From Decoration to Reinterpretation: Improvisation, Composition, and the Perception of Similarity in Variation Sets Janet Bourne (University of California, Santa Barbara)

Beyond the Continuum: Towards a Typology of Improvisatory Processes

Andrew Goldman (Western University)

COFFEE BREAK (HAYES)

THURSDAY AFTERNOON SESSIONS—4:00-5:30

CROSSING CULTURES (MCKINLEY)

Nancy Yunhwa Rao (Rutgers University), Chair

Hearing Music Narratively: A Cross-Cultural Approach

Elizabeth Hellmuth Margulis (Princeton University)

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

Toru Momii (Columbia University)

Rāga as Scale

Somangshu Mukherji (University of Michigan)

SPINNING OUT BACH (TAFT A)

Caleb Mutch (Indiana University), Chair

The Predominant V4/2

Daniel B. Stevens (University of Delaware)

Tracing Form and *Fortspinnung* through a Compositional Pattern in Some Works by J. S. Bach

John S. Reef (Nazareth College)

Shaw-Barthes-Bach: Analyzing Intertextuality in Caroline Shaw's *Punctum*

Owen Belcher (University of Missouri-Kansas City)

FORM AND MOTIVE IN POPULAR AND FILM MUSIC* (TAFT C)

Lori Burns (University of Ottawa), Chair

Formal Functions and Rotations in Top-40 EDM

Brad Osborn (University of Kansas)

Ternary Forms in Rock Music

Matthew E. Ferrandino (University of Kansas)

Thematic Transformation & the Limits of Leitmotivic Analysis in Hollywood Film Franchises

Frank Lehman (Tufts University)

THURSDAY EVENING MEETINGS AND EVENTS

5:30-6:00	Conference Guides (Taft B)
5:45-7:45	Music Informatics Interest Group Meeting (Taft C)
5:45-7:45	Dance & Movement Interest Group Meeting
	(Nationwide A)
6:30-8:00	Opening Reception (Hayes; Cash Bar)

THURSDAY EVENING SESSION—8:00-9:00/9:30/10:00

PRODUCING VIRTUAL SPACES (HARRISON; 8:00-9:30)

Victoria Malawey (Macalester College), Chair

Genesis Does What Nintendon't: Sound Chips and Composer Culture in the 16-Bit Era

Kevin R. Burke (Florida Institute of Technology)

Scott Walker's Avant-Garde Idiom and the Composition of Perceptual Space

Christopher Douthitt (Princeton University)

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

Zachary Zinser (Indiana University)

CONTRAPUNTAL AND MENSURAL DISSONANCE IN THE 14TH CENTURY (MCKINLEY; 8:00–9:00)

Jared Hartt (Oberlin College and Conservatory), Chair

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

Ryan Taycher (University of Massachusetts Amherst)

Hidden Coloration: Mensural Dissonance in Machaut

Justin Lavacek (University of North Texas)

PERFORMANCE: BODIES, COGNITION, TECHNOLOGY (TAFT A; 8:00–10:00)

Jonathan De Souza (Western University), Chair

Measuring Physical Balance in Contemporary Piano Works Michèle Duguay (The Graduate Center, CUNY)

Harmonic Function as Situated Cognition in Debussy Performance Practice

Daniel Shanahan (Ohio State University)

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

"The Tune Makes Very Scant Difference"??? Schema and Meaning in Guthrie's and Seeger's Performances of "This Land Is Your Land"

Alfred Cramer (Pomona College)

LEWIN WHERE YOU LEAST EXPECT HIM* (TAFT C; 8:00–10:00)

Robert Cook (University of Iowa), Chair

Contextual Inversion and Form in Zwilich's Quintet (2011) Jessica Rudman (The Hartt School)

A Lewinian Investigation of Rhythmic Calculation in South Indian Carnatic Improvisation

Robert L. Wells (University of Mary Washington)

Queer Phenomenology in Music Theory

Gavin Lee (Soochow University)

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

Alan Reese (Cleveland Institute of Music)

FRIDAY, NOVEMBER 8

7:00-8:45	Committee on the Status of Women Breakfast Meeting
	(Grant) ‡
7:00-8:45	Music Theory Spectrum Editorial Board Meeting (Taft B) ‡
7:00-8:45	Music Theory Online Editorial Board Meeting (Harding) ‡
7:30-8:45	Breakfast Reception for all students hosted by the
	Professional Development Committee (Taft D)
8:30-5:00	Registration (Hayes Lobby)
8:30-6:00	Exhibits (Hayes)
9:00-12:00	Graduate Student Workshop I: Computer
	Programming for Corpus Analysis with Michael
	Cuthbert, Massachusetts Institute of Technology
	(Nationwide A) ‡
9:00-12:00	Graduate Student Workshop II: Twentieth-century
	Music in Analysis and Performance: Contexts and
	Experiments with Daphne Leong, University of
	Colorado (Nationwide B) ‡
	, 1

FRIDAY MORNING SESSION—8:00-9:30

POSTER SESSION (13 POSTERS) WITH BREAKFAST (MCKINLEY)

Sara Bakker (Utah State University), Convenor

Harmony, Timbre, And Form

Harmonic Syntax in the Canzonas of Frescobaldi

Samuel Howes (McGill University)

Another Geometry of Music: Harmony and Counterpoint in Some Unextended Common Practices

Scott Murphy (University of Kansas)

Shades of Sound, Subtle and Sublime—Theoretical Implications of the Color/Tone Color Metaphor

Lindsey Reymore (Ohio State University)

The Chromatic Wedge as Formal Marker in Marion Bauer's Duo for Oboe and Clarinet, op. 25

Anna Stephan-Robinson (West Liberty University)

Follow the Solo: From Ritornello to Sonata-Form Concerto Omer Maliniak & Yoel Greenberg (Bar-Ilan University, Israel)

Paths Through Popular And Post-Tonal Music

Pousseurian Mobile Form in Production Library Music for Television

Greg McCandless (Appalachian State University)

The Many Paths of Decolonization: Exploring Colonizing and Decolonizing Analyses of A Tribe Called Red's "How I Feel" Robin Attas (Queen's University)

Post-Tonal Postcards: Synthesizing Analysis and Reflection through Prose Writing

Angela Ripley (College of Wooster)

Metric Complexity

Influence of Bluegrass and Radiohead on Metric Complexity in Punch Brothers

Rachel Hottle (McGill University)

Hemiolas in Non-Isochronous Meters

Jay Smith (Texas A&M University - Kingsville)

Mathematics, Technology, And Data Science

The Myhill Property: The Strong vs. the Weak M. A. Coury-Hall (New York City)

Can a Leaf Make Music? Techniques and Aesthetics of Plant-Generated CV in Electronic Music

Paul Miller (Duquesne University) & Brian Riordan (University of Pittsburgh)

Musical Topics in Mozart's Piano Sonatas: A Data Science Approach

Jessica Narum & Andrew Watkins (Baldwin Wallace University)

FRIDAY MORNING SESSIONS—9:00-12:15

ANALYZING THE MUSIC OF THOMAS ADÈS (HARRISON)

Yayoi Uno Everett (University of Illinois at Chicago), Chair

Automatism and Tonal Discombobulation in the Mazurkas of Thomas Adès

Brian Moseley (SUNY Buffalo)

Paths, Spirals, and Extraordinary Cycles: The Chaconne in Thomas Adès's Violin Concerto

Philip Stoecker (Hofstra University)

A World in Constant Motion: Thomas Adès's In Seven Days

Amy Bauer (University of California, Irvine)

How You Speak to Me: Word Setting in Thomas Adès's *Powder Her Face* (1995)

Edward Venn (University of Leeds)

The RICH logic of Thomas Adès's *The Exterminating Angel* and *The Tempest*

John Roeder (University of British Columbia)

Living Toys in Adès's *Living Toys*: Transforming the Post-Tonal Topic

James Donaldson (McGill University)

CONTEMPLATING AND MAKING THE TRANSITION TO ACADEMIC ADMINISTRATION* (TAFT C)

Sponsored by the Professional Development Committee

Presentations and Panel Discussion

Stanley V. Kleppinger (University of Nebraska-Lincoln), Chair

Sarah Ellis (University of Oklahoma)

Ryan McClelland (University of Toronto)

Catherine Nolan (Western University)

Matthew Shaftel (Ohio University)

Stanley V. Kleppinger (University of Nebraska-Lincoln)

FRIDAY MORNING SESSION—9:00-10:30

PSYCHOACOUSTIC DISSONANCE AND CONSONANCE (TAFT A)

Alfred Cramer (Pomona College), Chair

"Mutated Octaves" in 20th-Century and Contemporary Orchestration

Joshua W. Mills (University of Florida)

Unmasking the "Foreign Body": Large-scale Formal Process and Microtonal Language in Georg F. Haas's String Quartet No. 1 Alexis Millares Thomson (University of Toronto)

Listening to Sensory Dissonance through Time in Minimalism Brad Gersh (Princeton University)

COFFEE BREAK (HAYES)

FRIDAY MORNING SESSIONS—10:45-12:15

METER, FLOW, AND GROOVE IN HIP HOP (MCKINLEY)

Megan Lavengood (George Mason University), Chair

Metric Transformations in Hip-Hop and R&B Sampling Practice Jeremy Tatar (McGill University)

Segmentation and Phrasing in Hip-Hop Flow

Ben Duinker (McGill University)

Metric Complexity, Lyric, and Groove in Selected Verses of Eminem

Mitchell Ohriner (University of Denver)

RETURNING TO/IN SCHUBERT'S SONATA FORMS (TAFT A)

Suzannah Clark (Harvard University), Chair

Metrical Dissonance and Hypermeter in Schubert's Sonata Forms Hei Yeung John Lai (University of British Columbia)

Diatonic Indeterminacy and Double Returns in Schubert's Piano Sonata in B-flat Major, D. 960, i

René Rusch (University of Michigan)

Foreshadowing Strategies in Schubert's Three-Key Expositions Aaron Grant (Missouri Western State University)

FRIDAY NOONTIME MEETINGS AND LUNCHEON

12:00-2:00	Committee on Race and Ethnicity Travel Grant
	Recipients Lunch (Offsite) ‡
12:30-2:00	Autographs and Archival Documents Interest Group
	Meeting (Taft A)
12:30-2:00	History of Music Theory Interest Group Meeting
	(Harrison)
12:30-2:00	Analysis of Post-1945 Music Interest Group
	(McKinley)
12:30-2:00	Work & Family Interest Group Meeting
	(Nationwide A)
12:30-2:00	Jazz Interest Group Meeting (Nationwide B)
1:00-1:45	Yoga with Lindsey Reymore (Garfield)
1:00-3:00	CV Review Session, coordinated by the
	Professional Development Committee (Taft D)

FRIDAY AFTERNOON SESSION—2:15-5:30

DIVERSITY IN MUSIC THEORY PEDAGOGY* (TAFT C)

Sponsored by the Committee on Race and Ethnicity See abstracts section for details Somangshu Mukherji (University of Michigan), Chair

Part 1. Instrument-Making Activity

Quintina Carter-Ényì (University of Georgia), Moderator Marvin Wayne Allen (Morehouse College), Ariel Alvarado (Spelman College), Tyler Jennings (Spelman College), Donovan Polk (Morehouse College), Elaine Ransom (Spelman College), Julian Rucker (Morehouse College), Kha'Zhir Stevenson (Spelman College), Ridge White (Morehouse College)

Part 2. Lightning Talks on Diversifying Music Theory Pedagogy

World Music as a Resource for Teaching Music Theory John Roeder (University of British Columbia)

Including Music by Diverse Composers: Redefine Modes of Analysis

Nancy Yunhwa Rao (Rutgers University)

Working with Diverse Student Populations in the Classroom Robin Attas (Queen's University)

Part 3. Performance Activity

Quintina Carter-Ényì (University of Georgia), Moderator Marvin Wayne Allen (Morehouse College), Ariel Alvarado (Spelman College), Tyler Jennings (Spelman College), Donovan Polk (Morehouse College), Elaine Ransom (Spelman College), Julian Rucker (Morehouse College), Kha'Zhir Stevenson (Spelman College), Ridge White (Morehouse College)

FRIDAY AFTERNOON SESSIONS—2:15-3:45

LISTENING, SEEING, AND MOVING: SHIFTING ANALYTICAL PERSPECTIVES ON MUSIC AND DANCE (HARRISON)

Jocelyn Neal (University of North Carolina), Chair

"A-Five, Six, Seven, Eight!": Musical Counting and Dance Hemiolas in Musical Theatre Tap Dance Breaks Rachel Short (Shenandoah Conservatory)

Choreographic Revelations: "Dance Music," According to Two

Historical Dance Theorists Matthew Bell (Tallahassee, FL)

Finding the Salsa Beat from the Positional Perspective of the Dancing Salsero/a

Rebecca Simpson-Litke (University of Manitoba)

IMPROVISING/COMPOSING WITH THOROUGHBASS AND PARTIMENTI (MCKINLEY)

Joel Lester (The Graduate Center, CUNY), Chair

Four Steps Toward Parnassus: Johann David Heinichen's Method of Keyboard Improvisation as a Model of Baroque Compositional Pedagogy

Derek Remeš (Hochschule Lucerne - Music, Switzerland)

Beethoven Contra Partimento: Creativity, Aesthetics, and the schöne Künste in a Realization of BWV 908

Vasili Byros (Northwestern University)

Teaching by Example: "Practical" Pedagogies of the Postclassical Thoroughbass

Andrew Malilay White (University of Chicago)

COMPOSING IN PARIS (TAFT A)

Marianne Wheeldon (The University of Texas at Austin), Chair

Hearing the Inaudible in Dutilleux's Métaboles

James N. Bennett (Waterloo, IA)

Friday

Competing Musical Processes in Parisian Modernist Sonata Forms

Damian Blättler (Rice University)

Falling into Ruin: Neoclassical Sonata Form

September Russell (University of Regina)

COFFEE BREAK (HAYES)

FRIDAY AFTERNOON SESSIONS—4:00-5:30

HISTORY OF THEORY AND THE PRE-HISTORY OF MUSIC (HARRISON)

David Cohen (Max Planck Institute for Empirical Aesthetics), Chair

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

Joshua Klopfenstein (University of Chicago)

Francescantonio Calegari and the Scuola dei rivolti:

A Bridge between the Prima and Seconda pratica?

Bella Brover-Lubovsky (Jerusalem Academy of Music and Dance)

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

CROSS-MODAL PERCEPTION IN MULTIMEDIA AND VIRTUAL REALITY (MCKINLEY)

David Bashwiner (University of New Mexico), Chair

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

Sarah Louden (New York University Steinhardt)

The Analytical Lightshow: Concert Lighting as Analysis in Extreme Metal Live Performance

Olivia Lucas (Louisiana State University)

Like "Daft Punk on bloody C R A C K": Constructing the Identity of the Virtual Reality DJ

Alexander Balasko (The University of Texas at Austin)

FORMS, FRAGMENTS, AND DEFORMATION (TAFT A)

Andrew Davis (University of Houston), Chair

Strategic Incompletion in Clara Schumann's Lieder

Michael Baker (University of Kentucky)

Fragments and Frames in the Early Romantic Era

Catrina Kim (Oberlin Conservatory of Music)

Tracing the Second Theme Narrative in Fanny Hensel's Piano Trio in D Minor

Kenton Osborne (University of Oregon)

FRIDAY EVENING MEETINGS AND EVENTS

5:30-6:30	Graduate Programs Reception with Ice Cream Social
	(Hayes)
5:30-7:30	Eastman School of Music Alumni Reception (Garfield)
5:30-7:30	University of Oregon Reception (Taft D)
5:45-7:45	Psychoanalysis Interest Group Meeting (Nationwide A)
5:45-7:45	Film & Multimedia Interest Group Meeting (McKinley)
5:45-7:45	Scholars for Social Responsibility Interest Group
	Meeting (Nationwide B)
5:45-7:45	Pedagogy Interest Group (Harrison)
6:00-8:00	University of Cincinnati, College-Conservatory of
	Music Reception (Grant)
6:00-8:00	Bienen School of Music, Northwestern University
	Reception (Taft B)
6:00-8:00	Project Spectrum: Conversations on Diversity,
	Equity, Accessibility, and Inclusion (Harding)
8:00-10:00	Florida State University Reception (Garfield)
9:00-11:00	University of Chicago Reception (Grant)

FRIDAY EVENING SESSION—8:00-9:00/9:30/10:00

EXPANSIVE FORMS IN POP AND PROGRESSIVE ROCK (HARRISON; 8:00–9:30)

John Covach (Eastman School of Music), Chair

Anti-Telos Choruses in Recent Pop

Drew Nobile (University of Oregon)

"...a jolly good time": Understanding Groove in Progressive Rock Ivan Tan (Brown University)

Extended Final Phrases in Popular Songs

Nicole Biamonte & Edward Klorman (McGill University)

RECONTEXTUALIZING METER (MCKINLEY; 8:00–10:00)

Roger Mathew Grant (Wesleyan University), Chair

Damaged Cargo: Concerning the Unfortunate Voyage of Classical Poetic Theory to the Land of the Modern Music-Theory Textbook

Richard Cohn (Yale University)

On Metrical Structure and Cueing Systems in Monroe's "Muleskinner Blues"

Nathaniel Mitchell (Princeton University)

Many Malinke Meters: Analytical Applications of Meter Theory to Dance Drumming of Guinea

Tiffany Nicely (University at Buffalo (SUNY)

An Investigation of Metrical Dissonance in Tap Dance Improvisation

Stefanie Bilidas (The University of Texas at Austin)

TOPIC AND PROTOTYPE IN HAYDN AND MOZART (TAFT A; 8:00–9:00)

Danuta Mirka (Northwestern University), Chair

Middleground Prototypes for Mozart's First-Movement Concerto Forms

Eron Smith (Eastman School of Music)

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

Olga Sánchez-Kisielewska (University of Chicago)

CORRALLING THE CHORALE: MOVING AWAY FROM SATB WRITING IN THE UNDERGRADUATE MUSIC THEORY CURRICULUM* (TAFT C; 8:00–9:30)

Presentations, Lightning Talks, and Panel Discussion
William van Geest (University of Michigan), Chair
Jennifer Snodgrass (Appalachian State University), Respondent

The Chorale in American Music Theory: A Corpus Study of Leading Textbooks

William van Geest (University of Michigan)

Resolving Chords to Resolve Anxieties: Pressures around Teaching the Chorale

Chelsea Burns (The University of Texas at Austin)

Administering Pedagogy: Navigating the Institutional Impacts of a Changing Theory Curriculum

Peter Smucker (Stetson University)

Repurposing the Chorale in the Theory Classroom

Katherine Pukinskis (Harvard University)

Teaching Undergraduate Voice-Leading with Neo-Riemannian Techniques

William O'Hara (Gettysburg College)

Building an Undergraduate Curriculum without SATB Writing Marcelle Pierson (University of Pittsburgh)

SATURDAY, NOVEMBER 9

7:00-8:00	Yoga with Lindsey Reymore (Garfield)
7:00-8:45	Regional and Affiliate Societies Breakfast Meeting
	(Taft B) ‡
7:00-8:45	Professional Development Committee Breakfast
	Meeting (Nationwide B) ‡
7:00-8:45	Committee on Race and Ethnicity Breakfast Meeting
	(Harding) ‡
7:00-8:45	SMT-V Editorial Board Meeting (Nationwide A) ‡
7:30-8:45	Committee on Workshop Programs Breakfast Meeting
	(Grant) ‡
8:30-2:00	Registration (Hayes Lobby)
8:30-6:00	Exhibits (Hayes)

SATURDAY MORNING SESSION—9:00-12:15

EMPIRICAL APPROACHES TO BLACK-ATLANTIC GROOVE* (TAFT C)

Sponsored by the 2019 Program Committee Presentations and Discussion Richard Cohn (Yale University), Chair Mitchell Ohriner (University of Denver), Respondent

On the Fluidity of Afro-Cuban Meter

Fernando Benadon (American University)

Glitched and Warped: Shaping the "Beat Bin" in Contemporary African-American Popular Music

Anne Danielsen (University of Oslo)

Groove on the Brain: Predictive Brain Processes Underlying the Experience of Musical Rhythm

Peter Vuust (Danish Royal Academy of Music and Aarhus University)

SATURDAY MORNING SESSIONS—9:00-10:30

STYLE AND COPYRIGHT (HARRISON)

Martin Scherzinger (New York University), Chair

The Puzzle of Style: On Leonard Meyer's Unlikely Replications Brian Miller (Yale University)

The Bias of Western Musical Notation in Music Copyright Litigation

Dana DeVlieger (University of Minnesota)

Deposit Copy or Recording? Sources for Musical-Legal Analysis in Current Federal Copyright Litigation

Katherine M. Leo (Millikin University)

ROTATION, REVOLUTION, AND RUBATO IN OPERA (MCKINLEY)

Deborah Burton (Boston University), Chair

Rotational Form as a 'Becoming' Process: An Analysis of the "Annunciation of Death" Scene in Wagner's *Die Walküre*Ji Yeon Lee (University of Houston)

Dissonance and Political Violence in Two Sappho Operas Calvin Peck (Indiana University)

Transacting Musical Time: Where Rhythm Ends and Rubato Begins

John Y. Lawrence (University of Chicago)

SPECULATIVE MAPPINGS (TAFT A)

David Huron (Ohio State University), Chair

Partial Orders of Modal Brightness

Paul Sherrill (University of Utah)

Using Interactive Software to Enhance Mapping of Complex Multi-dimensional and Dynamic Musical Relationships Michael Clarke, Frédéric Dufeu, & Keitaro Takahashi (University of Huddersfield, England)

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

James Sullivan (Michigan State University)

COFFEE BREAK (HAYES)

SATURDAY MORNING SESSIONS—10:45–12:15

THE JOY OF FORM AND THE FANTASY OF THEORY (HARRISON)

Nathan Martin (University of Michigan), Chair

The Form of Fantasy and the Fantasy of Form in the Writings of A. B. Marx

August A. Sheehy (Stony Brook University)

Theorizing Sonata from the Margins: Manuel Blasco de Nebra's *Seis Sonatas* (1780) in Context

Bryan Stevens (University of North Texas)

The Joy of *Sextabsätze*: The Deceptive Cadence and Other Such Slippery Events

L. Poundie Burstein (Hunter College and The Graduate Center, CUNY)

VOICES (MCKINLEY)

Andrew Chung (University of North Texas), Chair

Vocal Pitch in Rap Music

Robert Komaniecki (Appalachian State University)

The "Ahhs" Have It: Wordless Melismas and the Ineffable in Popular Music

Martin Blessinger (Texas Christian University) & Christopher Endrinal (Florida Gulf Coast University)

To Be the Music: Mimetic Engagement with Caroline Shaw's *Partita for 8 Voices*

Anna Fulton (Grand Valley State University)

YOUTUBE AND PARTICIPATORY MUSIC MAKING (TAFT A)

Alyssa Barna (University of Minnesota), Chair

Reinterpretation As Cultural Practice: Sketches for a Cover Song Continuum

Evan Ware (Central Michigan University)

The *Techné* of YouTube Performance: Musical Structure, Extended Techniques, and Custom Instruments in Solo Pop Covers

William O'Hara (Gettysburg College)

Like, Comment, and Subscribe: Amateur Music Theory as Participatory Culture

Julianne Grasso (University of Chicago)

SATURDAY NOONTIME MEETINGS

12:30-2:00	Popular Music Interest Group Meeting (Taft C)
12:30-2:00	Committee on the Status of Women Brown Bag Open
	Lunch (Taft B)
12:30-2:00	Russian Music Theory Interest Group Meeting (Taft A)
12:30-2:00	Performance and Analysis Interest Group Meeting
	(Harrison)
12:30-2:00	Early Music Analysis Interest Group Meeting
	(McKinley)
12:30-2:00	Joint Meeting with Music & Disability and
	Music Cognition Interest Groups (Nationwide A)
12:30-2:00	Analysis of World Music Interest Group Meeting
	(Nationwide B)

SATURDAY AFTERNOON SESSION (UNION BALLROOM, 2ND FLOOR)

2:15-3:30	SMT BUSINESS MEETING*
3:30-3:45	SMT AWARDS PRESENTATION*
3:45-4:00	COFFEE BREAK, UNION BALLROOM LOBBY
4:00-5:30	PLENARY SESSION*

REFRAMING MUSIC THEORY

Elizabeth West Marvin (Eastman School of Music), Moderator

Music Theory's White Racial Frame

Philip Ewell (Hunter College and The Graduate Center, CUNY)

From Exoticism to Interculturalism: Counterframing the East-West Binary

Yayoi Uno Everett (University of Illinois at Chicago)

Music Theory's Therapeutic Imperative and the Tyranny of the Normal

Joseph Straus (The Graduate Center, CUNY)

Getting to Count

Ellie M. Hisama (Columbia University)

SATURDAY EVENING MEETINGS

5:45-7:45	Global New Music Interest Group Meeting
	(Nationwide A)
5:45-7:45	Improvisation Interest Group Meeting (Taft A)
5:45-7:45	Queer Resource Interest Group Meeting
	(Nationwide B)
6:00-7:45	Music and Philosophy Interest Group Meeting (Taft C)
6:00-8:00	University of Michigan Alumni Reception (Harding)
8:00-10:00	University of North Texas Reception (Taft B)
8:00-10:00	University of Texas at Austin Reception (Harrison)
8:00-10:00	Oxford University Press Reception (McKinley)
9:00-11:00	Indiana University Jacobs School of Music Reception
	(Garfield)
9:00-11:00	McGill University Reception (Grant)
9:00-11:00	City University of New York Reception (Harding)
10:00-12:00	Yale University Reception (Taft D)

SUNDAY, NOVEMBER 10

7:00-8:45	2019/2020 Program Committees Breakfast Meeting (Garfield)‡
7:00-8:45	Directors of Graduate Studies Breakfast Meeting
7:30-8:45	(Grant)‡ Interest Groups Breakfast Meeting (Harding)‡
8:30-12:00	Exhibits (Hayes)

SUNDAY MORNING SESSIONS—9:00-10:30

NAVIGATING KEYS (HARRISON)

Michael Buchler (Florida State University), Chair

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

Dan Blim (Denison University)

Double-Tonic Complexes as Bistable Phenomena in Gershwin Thomas William Posen (McGill University)

Multidimensional Harmony in Schubert's "Der Doppelgänger": A Complex of Memory and Identity

Jason Patterson (Collin College)

FRETS, SLIDES, AND FEELS IN PUNK, ROCK, AND POP (MCKINLEY)

Christopher Doll (Rutgers University), Chair

Connecting the Dots: Guitaristic Geometry as a Punk Harmonic Practice

William Weston Bennett (Harvard University)

Rock Slides and Other Uncommon Progressions in Popular Music Harmony

David Forrest & David Sears (Texas Tech University)

"Feels" as Team Efforts: Exploring the Roles and Interactions Between Instruments in Popular-Music Time Feels Jose Manuel Garza, Jr. (Texas State University)

SCHEMATA IN KLEZMER AND STRAVINSKY (TAFT A)

Lynne Rogers (Mannes School of Music at The New School), Chair

Listening to Klezmer Music with Schema Theory

Yonatan Malin (University of Colorado Boulder)

Tartar Sauce and Travesty: Deformations of Galant Schemata in Stravinsky's Neoclassicism

Sarah Iker (Massachusetts Institute of Technology)

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

Dan Viggers (Washington University in St. Louis)

FORM IN THE LONG 19TH CENTURY* (TAFT C)

Janet Schmalfeldt (Tufts University), Chair

Musical Form and Visual Illusion in Two Songs from *Winterreise* Jonathan Guez (The College of Wooster)

Formal Interplay in Ternary Piano Works by Johannes Brahms Laurence Sinclair Willis (McGill University)

Being, Becoming and *Dasein*: Two-Dimensionality and Form-Functional Regression in Richard Strauss's *Eine Alpensinfonie*

Kelvin H. F. Lee (Durham University)

COFFEE BREAK (HAYES)

SUNDAY MORNING SESSIONS—10:45–12:15

CANONS, VOICE, AND CONTOUR IN REICH (HARRISON)

Gretchen Horlacher (Indiana University), Chair

Rhythmic Qualities, Meter, and Reich's Cyclic Canons Jason Yust (Boston University)

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

George Adams (University of Chicago)

"Repeat and Repeat Again": A Reexamination of Fuzzy Contour in Steve Reich's *The Desert Music*

Kristen Wallentinsen (Rutgers University)

FROM THE SOURCE (MCKINLEY)

Laura Emmery (Emory College), Chair

Shostakovich as Analyst

Ryan McCulloch (University of Michigan)

Sketching and Imitating: Cage's *Cheap Imitation* and the *Song Books*

Jeff Perry (Louisiana State University)

Beethoven Overexposed: From Source to Sketch to Autograph in Michael Finnissy's *The History of Photography in Sound*

Richard Beaudoin (Dartmouth College)

METER AND PROJECTION IN SPECTRAL AND POST-SPECTRAL MUSIC (TAFT A)

Justin London (Carleton College), Chair

Nearly-Metric Spaces

Joseph R. Jakubowski (Harvard University)

Process Philosophy Overcoming Itself: Modeling Grisey's *Vortex Temporum* (1994-96)

Joshua Banks Mailman (Columbia University)

Process and Projection in Abrahamsen's Schnee

Noah Kahrs (Eastman School of Music)

ANALYTICAL APPROACHES TO RACHMANINOFF* (TAFT C)

Blair Johnston (Indiana University), Chair

Rotational Form in Three of Rachmaninoff's Études-tableaux, op. 33

Stephen Gosden (University of North Florida)

Disguised Cadences in Rachmaninoff's Songs

Ellen Bakulina (University of North Texas)

Rachmaninoff, Taneev, and Horizontal-Shifting Counterpoint Simon Prosser (The Graduate Center, CUNY)

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History and analysis of popular music, 20th-century theory and analysis, music aesthetics and philosophy

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Music cognition and skills, improvisation, analysis, crossdisciplinary research (physics)

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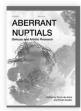


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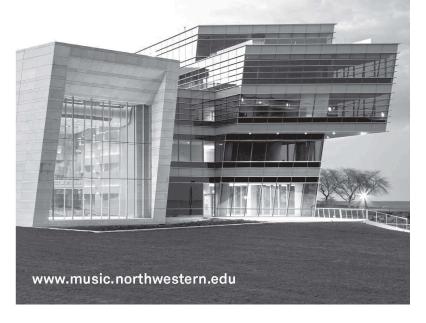
Mark J. Butler rhythm and meter, popular music, electronic dance music, embodiment, sound studies

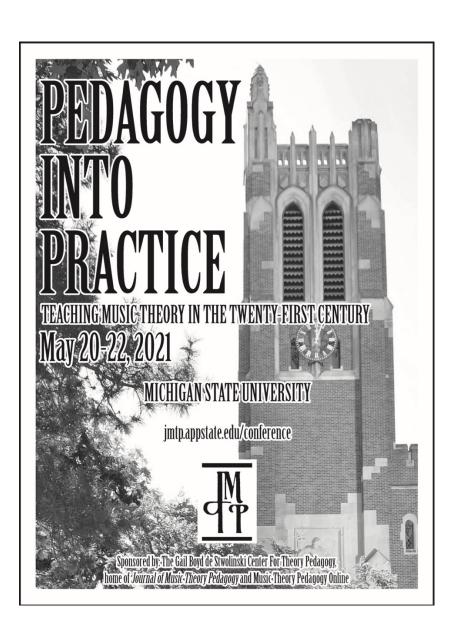
Vasili Byros long 18th century (listening, hermeneutics, composition, pedagogy)

Danuta Mirka late 18th century, musical communication, meter and rhythm, topic theory

Susan Piagentini music theory pedagogy, technology

Robert Reinhart microtonal ear training, early music instrumentation, extended performance techniques







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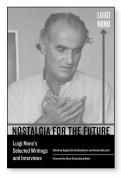
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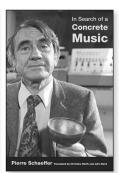
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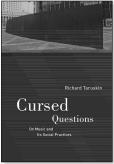
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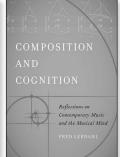
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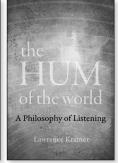




















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ETHNOMUSICOLOGY

PATRICK BURKE: music of the United States, jazz, rock, race and ethnicity

LAUREN ELDRIDGE: pedagogy, African diasporic music, the Caribbean, art economies

ESTHER KURTZ: Afro-Brazilian music and dance, cultural politics, ethnographic ethics, decolonizing practices

MUSICOLOGY

CLARE BOKULICH: late-medieval and early Renaissance music, genre and genre theory, silence $\,$

TODD DECKER: film music and musicals, the Broadway musical, popular music, digital humanities

DOLORES PESCE: medieval motets, medieval and Renaissance music theory, Franz Liszt, Edward MacDowell

ALEXANDER STEFANIAK: 19th-century music, virtuosity, Schumann, music criticism, Romantic aesthetics

THEORY & COMPOSITION

BEN DUANE: texture, form, music cognition, computational modeling, 18th & early 19th-century music

ROBERT SNARRENBERG: Schenker, metaphor and music analysis, Brahms

CHRISTOPHER STARK: composition, 20th-century theory and analysis, electronic music, postmodernism

PAUL STEINBECK: improvisation, intermedia, the Association for the Advancement of Creative Musicians



THURSDAY AFTERNOON SESSIONS—2:15-5:30

WOMEN, MUSIC, TECHNOLOGIES (HARRISON)

Sponsored by the Committee on the Status of Women

Judith Lochhead (Stony Brook University), Chair

Amelia Rosselli's Instrument: Gendered Paths and Gatekeeping in the Post-War Electronic Music Studio Joanna Helms (University of North Carolina at Chapel Hill)

In 1953, Amelia Rosselli (1930–96)—a composer and, later, a famous poet—developed a prototype musical instrument with the Farfisa company in Ancona, Italy. This electrically-powered reed organ spanned six octaves, with sixty-four keys tuned to overtones above a fundamental of 40 Hz. Using this instrument, Rosselli created a compositional and improvisational system. Inspired both by post-war expansions of dodecaphonic theory and contemporary anthropological research into non-Western tuning systems, Rosselli believed her methods combined European art practices with acoustic principles found in global traditions and human vocal production.

In the 1950s, Rosselli published two articles and circulated her ideas in correspondence with figures, including Karlheinz Stockhausen, Luciano Berio, and David Tudor. In 1962, she completed a month's residency at the Studio di Fonologia (SdF) in Milan, and was in discussions with Italian broadcaster Radiotelevisione Italiana to develop new equipment—but the project's funding failed to materialize. Despite trying for years to publish updates to her research, Rosselli only succeeded in doing so in a literary journal in 1987.

Through her publications and correspondence, I read Rosselli's engagement with post-war music institutions (and particularly the SdF) through Sara Ahmed's concept of *paths*, or the formation of institutional routines through everyday practices, and in light of the exclusion of some bodies on the basis of their inability—or refusal—to conform to those routines. Rosselli's story is a case study for how post-war European electronic music studios accumulated masculine bodies and practices, demonstrating how women with the same qualifications and experience held by their male colleagues could not necessarily follow the same paths.

Bebe Barron and Electronic Film Composition: A Re-evaluation Reba Wissner (Montclair State University)

Charlotte "Bebe" Wind Barron's name has become synonymous with mid-century electronic film music and she is often referred to as the godmother of electronic music. While Bebe's career is often explored in tandem with that of her husband, Louis, her contributions should be examined on their own to best understand the crucial role that she played in her collaborations with Louis. This paper examines the contributions of Bebe Barron and untangles her role in film composition, specifically for her lesser-known films, from that of Louis, Bebe's role in the collaborations with her husband are quite distinct, yet in her own interviews she tends to minimize her role with respect to Louis's, often creating a thin line between projecting modesty and minimizing her own role in the compositions. However, in considering her stated role in film composition, it becomes clear that without the work Bebe put in—listening to the thousands of hours of recordings to decide what was worth using, which Louis did not want to do—the film scores would have never come to fruition. Special attention will be paid here to Bebe's smaller-scale film works, some of which were for industry, teasing out her specific contributions to electronic film music practices, especially of the 1950s and 1960s. A reanalysis and contextualization of Bebe's interviews about her film compositions reveals a new understanding of her role in electronic film composition. Through an examination of these interviews, a more accurate picture of her role in film composition emerges.

Receptivity via Biofeedback in Pauline Oliveros's Meditation Project

Tysen Dauer (Stanford University)

In the tumultuous long sixties, composer Pauline Oliveros believed that sound creation and listening could heal human consciousness by improving "receptivity." Oliveros's belief that her *Sonic Meditations* could treat the ailments of the American psyche rested on the cognitive neuroscience and parapsychology of alpha activity (8–12 Hz neural oscillations). To test the efficacy of her compositions and other meditation practices, she organized the ten-week Meditation Project in 1973 at the University of California, San Diego.

In this paper I explain Oliveros's "receptivity" goals and the supporting use of biofeedback in the Meditation Project. First, I examine how the

motivations for Oliveros's aesthetic practices fit into a countercultural diagnosis of white Western ills stemming from technocracy. Next, I look at biofeedback and alpha activity as a prescription for these ills because of their association with meditative states and the ability to inculcate "feminine softness." I then analyze the roles of alpha activity in Oliveros's 1973 Meditation Project: as inspiration for compositions, as biofeedback, and as a metric of success in Oliveros's analysis of participants' brain data. I show how even as Oliveros sought to bridge cultural binaries of East and West, the roles of alpha activity reveal concomitant racial essentializations and hierarchies in the Meditation Project.

I argue that Oliveros's interest in alpha activity began earlier and was more central than we previously thought. In the process, I uncover how inculcating a "receptive mode of consciousness" was bound up in American Cold War Orientalism and white identity anxieties.

Harriet Padberg: Computer-Composed Canon and Free-Fugue Renascence

Richard Savery, Benjamin Genchel, Jason Smith, and Molly Jones (Georgia Tech Center for Music Technology)

Sister Harriet Padberg's 1964 dissertation, "Computer-Composed Canon and Free-Fugue," may be the first on computerized algorithmic composition. In this work, Padberg combined traditional fugue style and 20th-century serialism with a novel text-to-music algorithm contrasting widely-used stochastic methods. Padberg's dissertation can be seen today as having pioneered modern text-to-music approaches—processing text into features used to define sounds, rhythms, and structures which form the basis for composition.

While the original code is made available in the dissertation, the ability to run it, experiment with it, or sonify its outputs is inaccessible; it was written for the IBM 1620 and 7072, machines which most likely can only be found in museums. The authors have thus recreated the software in Python and are releasing it as an open-source, stand-alone program. The purpose of this renascence is to allow anyone to use and interact with Padberg's system, providing a window into music technology history and the ability to reimagine the system's potential uses for new work.

Despite its originality and relevance to the work of more prominent algorithmic composition figures such as Lejaren Hiller and Max Matthews, Padberg's work remains obscure and rarely referenced. With the

exception of one survey by Hiller, Padberg's dissertation is not mentioned in any of Hiller's or Mathews's papers about computer music despite both of them communicating with her and learning from her approach. Nevertheless, this piece remains a vital example of algorithmic composition research and a significant part of the history of early computer music.

Encoding Post-Spectral Thought: Kaija Saariaho's Early Electronic Works at IRCAM, 1982–87

Landon Morrison (McGill University)

This presentation will examine the musical impact of computer programs developed in the eighties at the Parisian Institut de Recherche et Coordination Acoustique/Musique (IRCAM), tracing their influence on postspectral composition through an analysis of Kaija Saariaho's early electronic works: Vers le blanc (1982, tape), Jardin secret I / II (1984–86, tape alone/harpsichord and tape), and IO (1987, large ensemble with tape and live electronics). These works mark Saariaho's entry into computer-based music, as well as her stylistic turn toward French spectralism, offering a unique perspective on the composer's initial development of techniques that have since been acknowledged as hallmarks of her mature style. Detailed analyses illuminate three key aspects of Saariaho's compositional approach, including her use of interpolation systems to create continuous processes of transformation, her organization of individual musical parameters into multidimensional networks, and her construction of timbres based on the analysis of acoustic phenomena. Drawing on extensive archival documentation, I show how these techniques arise from the affordances of contemporaneous IRCAM technologies (CHANT, FORMES, and IANA), which Saariaho used to progressively formalize her musical thought within the crystalline confines of a customized program dubbed "transkaija." Through an excavation of the underlying code for this program, this paper reconstructs musical processes that lie at the heart of the aforementioned works, revealing the extent to which technological mediation contributed to Saariaho's early development as a postspectral composer.

Two Publications, One Score: A Socially Constructed Relation between Knowledge and Artifact

Kelly Christensen (Stanford University)

Augustine-Julie Leduc (née Bernier) lost her husband in 1823 and assumed ownership of his Parisian publishing firm. In the first years of

Leduc's editorship, the Opéra-Comique was phasing out Grétry's classic Richard Cœur-de-lion. The opera went from ten performances in 1823 and 1824 to merely two in 1825, 1826, and 1827. Nevertheless, Leduc published a piano-vocal arrangement by Louis Maresse. A decade and regime change later, in 1840, Marie-Pierre Launer (née Boissière) inherited her late husband's company. Within Launer's first year, the Opéra-Comique revived Richard to an acclaim the work had not received in half a century. Launer released the same Maresse arrangement within a month of the Opéra-Comique's instantly popular revival. Against the backdrop of this one score, I explore how Leduc and Launer used the technologies of their printing houses to engage with and maneuver through their respective musical environments.

Launer's 1841 publication of *Richard* looks almost identical to Leduc's print in 1826. Both editors used lithography and octavo formats. Furthermore, Launer had her assistant, Mademoiselle Damours, re-engrave every page of Leduc's plates, matching every system break. Difference emerges not from the paper, but in how audiences interacted with the domestic arrangement. In 1841, the Opéra-Comique had revived Grétry's *Richard* with a dramatically re-written orchestration. Thus, Launer's public-domain version of *Richard* contrasted the contemporary revival. In her catalogue, Launer claimed her firm's small octavo format was "very convenient for following along in the theater." Connoisseurs, who had not heard *Richard* in full since 1827, could develop new knowledge about the Opéra-Comique's production through the past version the piano-vocal arrangement mediated.

Sociologist Wiebe Bikjer proposes a non-linear model of technological development, one which accounts for how social groups' various interests pull an artifact in different directions during the course of its development. Bikjer demonstrates this model through the history of the bicycle. I propose turning Bikjer's model inside out. Instead of tracing the various forms a material artifact took before its final stabilization, as Bikjer does with the bicycle, I trace how nearly the same material artifact was used to reinterpret information over time. In 1826, the Opéra-Comique had not advertised their revival as something modern, and audiences understood Leduc's piano-vocal arrangement as an artifact directly related to the Opéra-Comique's current production. Yet in 1841, a re-engraving of those same plates became material evidence that modern musicians, as well as spectators clamoring for the theater's update, disrespected the "great masters." Under new musical and aesthetic conditions, the same

technology, a portable and accessible octavo score, equipped a new social group to develop progressive ideas of the operatic work concept.

THURSDAY AFTERNOON SESSIONS—2:15-3:45

DUALISM AND TONNETZE (MCKINLEY)

Daniel Harrison (Yale University), Chair

A Cascading Canon System and Its Uncanny Design in Holst's "Lovely Venus"

Dustin Chau (University of Kansas)

During his brief post at Harvard University, Gustav Holst (1874–1934) began indulging in a cappella canons. Upon his return to England in 1932, he finished setting his Eight Canons for Equal Voices to some of Helen Waddell's translations of *Medieval Latin Lyrics*. "Lovely Venus"—dedicated to his Harvard colleague Wallace Woodworth and the Radcliffe Choral Society—is unique in this collection not only for its construction as an "à 3" stacked canon, but additionally for its voices entering at consecutive intervals of descending major thirds. This study draws connections among ideas from post-tonal canon systems and the extended common practice to codify the interdependence between melodic intervals and their generated harmonies, and the macroharmonic byproduct that results from such a union.

Another feature of these canons is that each voice is assigned individual key signatures. While his friends implored him to publish these pieces absent of any key, Holst believed that they were character-defining features for each of these canons. The analytical method applied to a reduction of "Lovely Venus" reveals a background structure that navigates through a large portion of the hyper-hexatonic system while exhausting a particular cardinal region via maximally-smooth voice leading. The notated triple-key combination between each voice symbolizes this hexatonic region and the uncanny system that inherently results from its restrictions. A foreground-level macroharmonic analysis reveals a larger symmetrical set, atypical to associate with this composer's repertoire, that deepens our understanding of Holst's harmonic language during his late compositional phase.

Sigfrid Karg-Elert on the Three-dimensional Pitch-Space Locations and Functional Meanings of the Diminished Seventh Chord

David Byrne (University of Manitoba)

The location and representation of the diminished seventh (dim7) chord in pitch space present challenges to neo-Riemannian and related theories. The dim7 chord does not contain a major third, and thus cannot be uniquely reduced to a consonant triadic subset. While expansion to three dimensions enables representation of dominant and half-diminished sevenths (Vogel 1975; Gollin 1998), the location of the dim7 chord remains variable. In this paper, I examine how German composer and theorist Sigfrid Karg-Elert (1877–1933) situated the dim7 chord within his threedimensional fifth/third/seventh pitch space (1930), which was essentially new for its time, and is identical to Gollin's except for its retention of just intonation and therefore its infinite expanse. Karg-Elert's pitch space contains three differently-sized minor thirds, and thus numerous possible types of dim7 chords. After rejecting three possibilities, Karg-Elert describes two different "shapes" of dim7 chord that are viable harmonies with clearly definable functional meanings. One has precedents in earlier writings by Riemann and Eitz, while the other is original to Karg-Elert, containing an interval generated by the third dimension of his pitch space. I begin by locating Karg-Elert's dim7 chords in the space, demonstrated using 3D Tonnetze, and aural realizations in just intonation. I then consider the functional meanings of the two viable dim7 chords (plus hybrids of both types), in relation to Harrison's discussion of functional mixture in the dim7 chord (Harrison 1994). Karg-Elert's presentation enriches our conception of the diminished seventh chord, and vividly demonstrates his

Beyond the Rhine: Harmonic Dualism in Vincent d'Indy's Cours de composition musicale

prodigious exploration of three-dimensional pitch space.

Stephanie Venturino (Eastman School of Music)

One of the most prominent Parisian musicians of his era, Vincent d'Indy (1851–1931) made important contributions to composition, pedagogy, and performance practice. His four-volume *Cours de composition musicale* also represents the only French version of German harmonic dualism. Identifying similarities between d'Indy's dualism and Hugo Riemann's theories, contemporaneous critics condemned d'Indy as the "importer, the champion, and the vulgarizer" of Riemannian theory, lambasting his search for "truth on the other side of the Rhine" (Marnold 1917, 516;

Saint-Saëns 1919, 11). Robert Gjerdingen (1995), Alexandra Kieffer (2016), and Andrew Pau (2016; 2018) have perpetuated d'Indy's reputation as a Riemannian epigone, arguing that he merely repackaged German ideas for French consumption. Yet the *Cours* offers a version of harmonic dualism profoundly different from Riemann's account.

This paper outlines the treatise's reception in early 20th-century Paris and in present-day North American music-theoretical literature, analyzes d'Indy's theories of harmony and tonality, and compares and contrasts his ideas with precedents from Riemann (*Vereinfachte Harmonielehre* and *Handbuch der Harmonielehre*) and Arthur von Oettingen (*Harmoniesystem in dualer Entwicklung*). D'Indy synthesizes Riemann's speculative, synchronic impulses and François-Joseph Fétis's aesthetically sensitive, historiographical tendencies, proposing his own dualist system rooted in the circle of fifths. More than what Gjerdingen (1995, 92) describes as "a culturally neutral 'technology transfer' directed toward bringing the French science of harmony up to date," the *Cours* represents d'Indy as a pedagogical and theoretical innovator, whose ideas spread harmonic dualism throughout France and abroad.

CYCLES, OSTINATI, LOOPS (TAFT A)

Chris Stover (University of Oslo), Chair

A Cyclic Approach to Harmony in Robert Glasper's Music Ben Baker (Eastman School of Music)

This paper develops a model for the harmonic language of jazz pianist Robert Glasper. Although there is little scholarship about Glasper, he has been hailed as "the most prominent jazz musician of his generation" (Russonello 2018). Glasper's music blends jazz with elements of R&B, gospel, neo-soul, and hip-hop. His chord progressions frequently feature diatonic tertian harmonies and clear tonal centers, but many familiar elements of traditional jazz harmonic syntax are often missing. I argue that, in their absence, recurring patterns of root and upper-voice motion within and between diatonic collections form a common thread that runs throughout much of Glasper's music.

To elucidate these patterns, I employ a music-theoretic construct with a rich history of modeling diatonic harmony: the ic3/4 dual interval cycle. The cycle efficiently models many of the diatonic chord motions and ac-

companying melodic patterns that characterize Glasper's music. I also develop a slide transformation between cyclic subsets, which proves a powerful tool for capturing typical collection shifts in Glasper's vamps and across his song forms. Ultimately, by mapping the patterns of harmonic color that characterize Glasper's sound, I seek to contextualize his music within the broader sweep of harmonic trends in post-millennial jazz.

Variable Ostinati and Hidden Cycles: Complex Grooves in Music by Craig Taborn and Kris Davis

Antares Boyle (Portland State University)

In music scholarship, "groove-based" is often used as a synonym for popular music, in which the "groove" is a fixed accompanimental pattern repeated consistently throughout a work or section. However, grooves can structure temporal flow rather differently in music combining popular and experimental techniques. Craig Taborn and Kris Davis are two contemporary jazz composer-performers who often build works around dynamic and flexible grooves, sometimes extending the cyclic concept to generate other musical material as well. My analyses, which treat excerpts from Taborn's solo album Avenging Angel and Davis's notated piano suite Eight Pieces for the Vernal Equinox, demonstrate how these cycles use complex rhythmic groupings, variation, and beginning/ending ambiguity to generate a rich variety of temporal implications at both the local and formal level. Analyzing these post-tonal ostinati can enrich our understanding of meter, temporality, and process in repetitive music, as well as the porous boundaries of categories such as "groove-based." However, while transcriptions or scores can support detailed work-based analysis, the artists' identities as composers, performers, and improvisers give their material a complex ontological status, as grooves repeat not only within but also between works. I conclude with a discussion of this intertextuality and its implications for analysis.

The Imposition of Meter in John Adams's *Shaker Loops*Clifton Boyd (Yale University)

Originally published as an ametric, modular, and partially aleatoric work for string septet, John Adams's *Shaker Loops* (1978) was revised and republished for string orchestra four years later. Adams states in the prefatory material to the 1982 version that it "is, in effect, one of the many possible realizations of the modular version, [with] all repeats [...] written out." This description, however, is terribly understated, given the numerous rhythmic alterations contained in the revised version (Jemian 2001).

Moreover, adapting Cohn's (2019) terminology, it obscures the work's shift from having only minimal meter to possessing deep meter.

In this paper, I argue that the experiences of the conductor, performers, and audience alike undergo a remarkable transformation due to the imposition of deep meter on a previously minimally-metric work. Through an analysis of the work's first movement, "Shaking and Trembling," I explore how Adams, in his role as what I call the "virtual conductor," not only does away with the aleatoric elements of the original version, but also removes much of the agency previously afforded to those involved with the work's performance. Furthermore, I examine how, through the publication of the revised version, Adams exerts a different form of compositional authority, discouraging renditions that differ from his own while promoting one that cannot be created from the original modular version alone. I conclude by considering how the work has been received over the last several decades in both of its forms, and how it demonstrates larger trends in minimalist music composition and consumption.

MUSICAL IMPROVISATION: COGNITIVE PROCESSES, FORMULAS, SCHEMATA, AND MUSICAL STRUCTURE (TAFT C)

Sponsored by the Music Cognition and Improvisation Interest Groups Gilad Rabinovitch (Florida State University), Chair

Improvisation has recently garnered attention from cognitive scientists, critical scholars, and music theorists (Berkowitz 2010; Beaty 2015; Lewis and Piekut 2016; Sanguinetti 2012). Musical performance world-wide is often described as a continuum between composition and improvisation (Nettl 1974): in some practices, pieces remain relatively stable between performances; in others, there is a greater variability in the course of performance. While the notion of a continuum seems productive, the implications for cognitive processes and musical structures remain vague: this is therefore a fruitful meeting point for theorists and cognitive scientists.

Panayotis Mavromatis (NYU) applies Hierarchical Markov Models to transcribed improvisations from several traditions. The model accounts for structural units on various time scales that reflect cognitive constraints on the process of improvisation. Gilad Rabinovitch (FSU) provides an armchair complement to Mavromatis by analyzing the fixity and flexibility of galant schemata and their global concatenation in works by C. P. E. Bach. Janet Bourne (UCSB) discusses the shift from an improvisatory and

decorative variation technique in the 18th century to a compositional approach in 19th-century variation sets. She does so through the cognitive and analytical lens of analogy. Andrew Goldman (UWO) challenges the continuum model, arguing for the importance of a typology of improvisatory processes. Through analyzing the practice of live coding, he distinguishes between "propositional" and "embodied" improvisation, and shows how improvisation types can be demonstrated and further theorized through experimentation.

The session is in a partially "flipped," alternative format, and will also present discussions with additional interlocutors online ahead of the conference.

Hierarchical Structural Patterns in Improvised Music: Implications for Cognition

Panayotis Mavromatis (New York University)

This paper presents a framework for modeling the structure of improvised music using Hierarchical Markov Models, a natural extension of simple Markov Models (Ames 1989; Mavromatis 2012; White and Quinn 2018). The latter represent musical structure as a dynamic process using graphs with circles representing basic objects (notes, chords, etc.) and arrows specifying their allowed successions. A hierarchy of simple Markov Models represents patterns at different levels of musical structure, showing how notes combine to create melodic formulas; how formulas become building blocks for phrase prototypes; and how phrase prototypes give rise to larger formal units. This approach unifies and refines previous structural analyses of improvisation that use successions of event clusters (Pressing 1988) or generative grammars (Johnson-Laird 1991, 2002). The formalism is illustrated using select examples of formulaic systems from Christian chant (Treitler 1974; Mavromatis 2005), Arabic maqam (abu Shumays 2013), and other world music idioms.

This framework has important implications for music cognition. As a model for memory organization in improvisation, it can efficiently represent an expert improviser's knowledge in long-term memory in a hierarchical and easily-accessible form, thereby reducing working memory load in real-time decision making. Moreover, the framework can address issues surrounding oral tradition in music, such as exactness vs. variability in reconstruction during recall, and the continuum between composition and improvisation. Finally, the present approach can extend the scope of

schema theory beyond the galant style, connecting it to mental mechanisms reflected in a broad array of musical styles across the globe.

Galant Schemata and the Continuum of C. P. E. Bach's Musicianship

Gilad Rabinovitch (Florida State University)

Eighteenth-century performance practice had greater flexibility respective to the score than is customary today. Recent research on partimenti (Gjerdingen 2007; Sanguinetti 2012) reveals the central role of keyboard musicianship in learning the building blocks of the galant style. Moreover, improvisatory genres suggest that 18th-century European music fits along the continuum of fixity and flexibility in performance (Nettl 1974).

C. P. E. Bach's treatise and compositions represent a productive case study. Each part of his treatise (1753/1762) ends with a discussion of a practice that lies at one edge of the improvisation continuum: varied reprises (relatively fixed) and the fantasy (flexible). Moreover, Bach's compositions can often be explained as successions of schemata (Gjerdingen 2007). The musical processes and structures associated with schemata require further theorizing, which resonates with Mavromatis's (present session) hierarchical approach: schemata are medium-sized units that interact with surface formulas and with long-range formal pathways (Caplin 2015; Byros 2015).

I focus on the sixth collection *für Kenner und Liebhaber* (1787), which contains tightly-scripted sonatas, free fantasies, and rondos that lie between them. By tracking the concatenation of schemata within form, I speculate on the potential role of schemata in improvisation: in fantasies, the minimal constraints facilitate spontaneity; in sonatas, the limited formal pathways for schema concatenation reduce the cognitive load on the improviser, as discussed by Mavromatis. By considering the continuum of Bach's musicianship and the role of schemata, we gain a vantage point on the possible role of these building blocks in improvisation or rapid composition (Gjerdingen 2007).

From Decoration to Reinterpretation: Improvisation, Composition, and the Perception of Similarity in Variation Sets

Janet Bourne (University of California, Santa Barbara)

Swinkin (2012) argues that 18th-century composers "decorate" the theme in theme and variations (T&V) while 19th-century composers "reinterpret" it. I theorize the boundary between variation and improvisation by

arguing that 18th-century composers conceptualized theme and variations form as more improvisational, especially since many variations began as improvisations. However, 19th-century composers considered T&Vs more compositional, reserving improvisation more for other forms. While the improvisation/composition continuum seems limiting, it may illuminate the stylistic shift in T&V composition between the 18th and 19th centuries—from "decoration" to "reinterpretation." Scholars define a melody as relations between notes, and listeners use analogy to perceive relations. Therefore, cognitively, people use analogy to hear variations as similar to one another. I create a framework based on psychologist Genter's (1983) model of analogy to analyze how composers kept or altered relations when varying themes. I use this method in conjunction with Schema Theory (Gjerdingen 2007) and Topic Theory (Mirka 2014) to analyze the presence or absence of improvisational features in T&Vs, since schemata were often figures for improvisation and topics communicate improvisational features (e.g. runs, figuration). I analyze "decorated" T&Vs (Mozart's K. 377/ii, K. 265; Daube's variations) and "reinterpreted" T&Vs (Beethoven's op. 35, op. 109/III, Diabelli Variations; Brahms's op. 9), measuring which relations composers kept the same and analyzing features of musical improvisation. I discuss how relational features change over time, and demonstrate how style change interacts with cognitive capabilities and conceptualizations of the improvisation/composition continuum—how composers' conceptualization of theme and variations altered the product of variations.

Beyond the Continuum: Towards a Typology of Improvisatory Processes

Andrew Goldman (Western University)

One way to resolve the paradox of improvisation's simultaneous freedom and constraint is to posit a continuum connecting the polar extremes of predetermination and absolute indeterminacy—but this does not account for the many ways in which a performer can improvise. It is important to consider different types of improvisatory processes. For example, the performance practice of live coding—in which performers write and execute algorithms in real time—exemplifies a distinction between "propositional" and "embodied" improvisation. Live coding is propositional improvisation in that the performer's physical actions are temporally dissociated from the resultant sounds, the relationship between movement and sound is not systematic (i.e., not one-to-one), and performers make decisions at discrete points in time. Embodied improvisation, by contrast,

links movement and sound in real-time, with systematic feedback, whereby decisions can be made continuously.

Experimental work can support this typological distinction. Electronic instruments can vary the temporal synchrony and systematicity of the auditory feedback, providing for propositional and embodied performance conditions. Neural and behavioral measures under the different conditions can demonstrate differences in the products and processes of types of improvisation. An irony is that this propositional-embodied distinction can itself be described as a continuum, considering the continuity of the neural and behavioral measures used to identify it, and that instruments vary in the characteristics of their embodied interfaces. Continua have a role in theorizing improvisatory processes, but they strongly depend on the fixity of their poles, and there are certainly more than two poles of musical performance process.

THURSDAY AFTERNOON SESSIONS—4:00-5:30

CROSSING CULTURES (MCKINLEY)

Nancy Yunhwa Rao (Rutgers University), Chair

Hearing Music Narratively: A Cross-Cultural Approach Elizabeth Hellmuth Margulis (Princeton University)

Music theory offers multiple accounts of the relationship between sound and narrative in instrumental music. We developed and validated a Narrative Engagement Scale that measures the extent to which an individual hears an excerpt narratively. We administered it to participants at two US sites and a rural village in China (Dimen) after listening to each of a set of Western and Chinese instrumental excerpts. Participants also provided descriptions of imagined stories. Critically, participants at US sites lacked experience with Chinese-language media, and participants in Dimen lacked experience with English-language media, an important locus for the generation of sound-referent associations.

Participants at all sites narrativized frequently and reported it as enjoyable. We compared narrative responses to each of the 128 excerpts. Participants at US sites tended to respond narratively to the same excerpts; Di-

men participants responded narratively to an entirely different set. Culturally specific patterns of sound associations shaped narrativity more than any structural factors within the music itself.

Striking consensus characterized the within-culture free response descriptions, with equally striking divergences characterizing between-culture responses. For example, an excerpt heard by participants at the US sites to depict "murder" and "paranoia" was understood by participants in Dimen to depict happy trips into the mountains with friends. Particular structural features thus seemed to influence associations within- but not cross-culturally. Further studies reinforced this observation by manipulating individual structural features, and by using a matching paradigm to probe associations. We conclude with the beginnings of a new theory about how narrative experiences arise.

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

Toru Momii (Columbia University)

My paper examines how shō player Miyata Mayumi's considerations of form and sound-producing gestures in her solo performances contest the binaries 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 musical structure by examining how her performances exhibit multiple forms of interculturality. I analyze the intricate intercultural processes at work in two of Miyata's recorded solo performances: Ōshikichō-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 Ōshikichō-no-chōshi, which she has refashioned as a self-standing solo work, represents a flexible approach to the performance of classical repertoire in the twenty-first century. Through performance analysis, I demonstrate how Miyata's alteration of the work's formal organization reflects careful consideration of tonal consequences. My analysis of One⁹ suggests that traditional pitch structures and fingering conventions inform the work's time bracket meta-structure. By centering Miyata as a key collaborator in the compositional process of

the work, I contend that her performance creates a shared intercultural space between avant-garde and traditional Japanese music.

Rāga as Scale

Somangshu Mukherji (University of Michigan)

This paper is situated within a debate between Omkarnath Thakur (1897– 1967) and Vishnu Narayan Bhatkhande (1860–1936), the two preeminent theorists of North Indian classical music in the 20th century. Thakur is known for explaining rāga, the central concept of Indian music, in terms of the differences between individual rāgas, viz., the distinct melodic-motivic patterns, salient pitches, unique guidelines for elaboration, etc., which characterize each rāga—an approach that therefore emphasizes the surface diversity of rāga music. This approach responds to an earlier tradition dating back to medieval India, which understands ragas in terms of their underlying scale structure, and which Thakur criticized for 'reducing' rāgas to scales, thus robbing them of their complexity. Thakur did this in words that mirror, strikingly, similar anti-reductionist statements by his European contemporaries (with regard, for example, to Schenkerian theory). For this reason, Thakur was unsympathetic toward the raga theory of Bhatkhande, which was influenced by medieval modal theory, and which classified all North Indian ragas into 10 parent scales, which he called thats. I argue, however, that Thakur misunderstood Bhatkhande through a close reading of the latter's writings, I will contend that Bhatkhande's "rāga as scale" theory, and the related notion of that (and also "raganga" and "vādi," which I explore in detail), are not just about raga structure, but part of a generative theory, of how complex rāga phrases arise from deep (scalar) backgrounds—which suggests, further, a striking convergence between Indian and Western (Schenkerian) descriptions of how musical surfaces are generated.

SPINNING OUT BACH (TAFT A)

Caleb Mutch (Indiana University), Chair

The Predominant V 4/2

Daniel B. Stevens (University of Delaware)

At its midpoint, J.S. Bach's Prelude from the Suite for Solo Violoncello in G Major finds itself in crisis. The C2 of the exhilarating V4/2 chord in m. 22 cannot resolve down by step, being the lowest note on the cello; its

resolution is later accomplished by dissonance transfer. This paper develops an alternative reading of this chord by considering similar instances in pieces by J.S. Bach and other composers in which cadential dominants are preceded not by conventional predominant harmonies but by an alternative chord that harmonizes $\hat{\bf 4}$ in the bass: the V4/2. By placing bass scale step in conflict with harmonic and contrapuntal tendencies, Bach assigns this inverted dominant seventh a new functional identity and alternative voice-leading resolutions that emerge from improvisational practice (fantasia, recitative) but are at odds with the narrow description given to this chord in modern music theory textbooks.

Using voice-leading, register, harmonic, and motivic analysis, this paper examines the predominant V4/2's characteristic features, including: (1) the direct ascent of the bass ($\hat{4}$) toward the root of the cadential dominant ($\hat{5}$); (2) high occurrence in the minor mode and preceded by N6; (3) occasional transfer of the $\hat{4}$ to an upper voice for resolution; (4) use with inverted cadential 6/4 chords; (5) use of register and temporal lengthening to create rhetorical emphasis; and (6) its anticipatory quality and cadential proximity, which override the chord's common voice-leading tendencies.

Tracing Form and *Fortspinnung* through a Compositional Pattern in Some Works by J. S. Bach

John S. Reef (Nazareth College)

This paper identifies a compositional pattern in the music of J. S. Bach and demonstrates its operation in several fugal or imitative works, noting two key issues: that it challenges the exhaustivity of William Renwick's exposition patterns in explaining the tonal structures of fugue expositions, and that the similarities among passages structured by this pattern may be accounted for in terms of "variation."

In this pattern, a descending upper-voice progression $\hat{8}-\hat{7}-\hat{6}-\hat{5}$ is supported contrapuntally by parallel tenths and chordally through descending-fifth root motion. It is characterized by a sort of "retrogressive implication," as harmonies slip away from dominant without a sense of resolution to tonic. This differs from the norm in fugue expositions, which is suggested by the I–V–I progressions that ground Renwick's exposition patterns. Consequently, alternative explanations are necessary.

This pattern is based on a more general voice-leading pattern common in the decades preceding Bach's career. But there are some particularities in Bach's usage: Bach associates it with the key of A minor, connects it consistently to formal events, and often uses similar motivic and phrase-rhythmic strategies as he navigates through it. The passages he constructs in this way betray a more obvious family resemblance than do passages structured by the earlier, more general version of the pattern. I suggest that these passages are best understood as "variations" of an "absent theme," and that as Bach sometimes retraced his compositional steps, he resorted to strategies that had previously proven successful in negotiating his compositional pattern.

Shaw-Barthes-Bach: Analyzing Intertextuality in Caroline Shaw's *Punctum*

Owen Belcher (University of Missouri-Kansas City)

While Caroline Shaw is perhaps best known for her Partita for 8 Voices (2012), her instrumental works have received less attention. In response, my project develops a close reading of her string quartet *Punctum* (2009, revised 2013). Like *Gustave Le Gray* (2012) and *Entr'acte* (2011), *Punctum* references another composer's work: J.S. Bach's chorale harmonizations of "Herzlich thut mich verlangen" in the St. Matthew Passion. *Punctum* contains an additional literary allusion to Roland Barthes's (1980) meditation on photography, *Camera Lucida*. In fact, Shaw borrows the term *punctum* from Barthes (Shaw 2013). Drawing on David Lewin's (1986) model of musical expectation and perception, Perle's (1990) concept of windows of order and disorder, and Shaw's prefatory comments, I explore how Bach's chorale and Barthes's interpretation of photography influence the formal, harmonic, and motivic structure of *Punctum*.

My analysis suggests two ways of hearing *Punctum*. The first hearing focuses on a series of underlying symmetrical relationships at various structural levels: obscured large-scale repetition, local harmonic palindromes, and an opposition between sharps and flats. The second hearing concentrates on the progressive push toward the chorale quotation at the quartet's climax—a quotation that is repeatedly prepared but denied throughout the quartet. By untangling the quartet's intertextual allusions, I model an analytical approach for Shaw's quotation-based pieces and offer a new perspective on a lesser-known work by a leading contemporary composer.

FORM AND MOTIVE IN POPULAR AND FILM MUSIC (TAFT C)

Lori Burns (University of Ottawa), Chair

Formal Functions and Rotations in Top-40 EDM

Brad Osborn (University of Kansas)

Publications on form in popular music have assumed the formal sections germane to pop-rock (especially verse, prechorus, and chorus) to be the formal designs of "popular music." But the most popular music of our time—music charting on the Billboard Top 40—has now absorbed the influence of electronic dance music (EDM) in a way that has fundamentally changed its formal structure. These songs still have verses, but they forgo prechorus and chorus in favor of "riser" and "drop" functions (Peres 2016). Furthermore, EDM forms almost never contain a viable contrasting bridge section. This constricts Covach's (2005) "compound AABA" design into what I call a "compound AAA" form, in which each of the song's three section groups (Osborn 2013) is built from the same core formal functions (Caplin 1998; Butler 2014), but often rotated (Hepokoski and Darcy 2006) into different orders.

I begin this presentation by outlining a provisional history of EDM hits since 2011, most of which are collaborations between seasoned EDM producers (e.g., David Guetta, Calvin Harris, Marshmello) and A-list pop singers. I then introduce EDM's three core formal functions (verse–riser–drop). Next, I turn my attention to "blended" formal functions (de Clercq 2012), in which riser and drop functions blend with functions regularly heard in pop/rock to create sections I call "riser-chorus," "drop postchorus," and "riser-bridge." Finally, I show how producers regularly combine formal functions at the end of tracks, resulting in cumulative (Spicer 2003) sections like "riser-chorus-drops.

Ternary Forms in Rock Music

Matthew E. Ferrandino (University of Kansas)

Formal scholarship in rock music has catalogued a number of recurring structural archetypes: verse/chorus, strophic, song form (AABA), through-composed, and terminally climactic. Evidence for ternary forms, however, has not yet been brought to the fore. Assuredly, ternary forms in rock music are not the norm, but they occur frequently enough to be worthy of consideration. In this paper I offer several instances of ternary forms in pop-rock music. Although a structural minority, ternary forms

push the boundaries of rock conventions and structurally complement a track's musical meaning and/or narrative.

In addition to straightforward ABA Ternary Form (TF), rock music offers several variations on this archetype. I present three additional types of ternary form for consideration. Embedded Ternary Form (ETF) occurs where one of the ternary sections (A or B) can be described as another formal type such as verse/chorus or strophic. Augmented Ternary Form (ATF) occurs when the ABA structure is supplemented with an intro and/or outro section. In Integrated Ternary Form (ITF), the formal structure presents two contrasting elements—one in the A section, the other in the B section—which are integrated and combined in the final iteration of A. These elements may be specific harmonies, melodies, timbres, rhythms, and/or lyrics.

These categories are neither mutually exclusive nor exhaustive and are meant as only a starting point for considering ternary forms in more depth in pop/rock music.

Thematic Transformation & the Limits of Leitmotivic Analysis in Hollywood Film Franchises

Frank Lehman (Tufts University)

Can a film score host true thematic transformation, even when the medium's musical canvases are short compared to those of art music? Certainly, many soundtracks abound with thematic change, especially in leitmotivic franchises. Bribitzer-Stull (2015) notes several forms common in Hollywood: orchestrational alteration, contrapuntal combination, reharmonization, and so on. But what of the more subtle sorts of themework—processes like teleological genesis, developing variation, harmonic motivicism, concealed repetition—what an uncharitable critic like Adorno would not hastily dismiss as mere "changes of lighting." This presentation argues that such types of thematic transformation do arise in Hollywood, but rarely, and always in tension with "anti-transformational" tendencies endemic to film, such as musical intermittency, motivic inconsistency, and semantic reification.

With nine leitmotivically-interlinked films and counting, the *Star Wars* saga is the logical franchise in which to weigh the powers and limitations of cinematic thematic transformation. Inspired by Bribitzer-Stull's categories of thematic development, I propose four transformational path-

Thursday

ways that work especially effectively in cinematic time: apotheosis, assembly, insinuation, and infusion. Each technique is illustrated with reference to a single leitmotif: "Across the Stars," "Revelation," "Rey," and "Rebel Fanfare." A longer case-study is offered for the "March of the Resistance" in the recent *Episode VIII: The Last Jedi* (2017), whose conversion from melody into a strictly modulatory motif bears hallmarks of all four transformational pathways. Throughout this presentation, I examine and critique the impulses behind leitmotivic analysis, which so easily contorts itself into cryptographic extravagance—not always, I conclude, such a bad thing.

THURSDAY EVENING SESSIONS—8:00–9:30

PRODUCING VIRTUAL SPACES (HARRISON)

Victoria Malawey (Macalester College), Chair

Genesis Does What Nintendon't: Sound Chips and Composer Culture in the 16-Bit Era

Kevin R. Burke (Florida Institute of Technology)

Sega's slogan "Genesis Does What Nintendon't" banked on a modern, cool image that painted the Nintendo Entertainment System (NES) as childish and dated. It is somewhat ironic, however, that the Sega Genesis retained much of the 8-bit sounds and technology that the branding tried to leave behind. For this presentation, I consider audio design and the resulting compositional practices, arguing that the inclusion of two discrete sound sources, a Programmable Sound Generator (PSG) and a Frequency Modulation (FM) sound chip, as well as two central processing units (CPU), the Zilog Z80 and Motorola 68k, provide rare insight into music implementation choices among many developers. In my analysis, I distinguish audio implementation as a software choice, instead of a "hardware limitation" as one frequently encounters. Citing tracks from Revenge of Shinobi (1989), Lightening [sic] Force (1992), Sol-Deace (1992), and Puggsy (1993), among others, I address several musical parameters that are partially (if not mostly) understood as sound driver, rather than composer characteristics. At the initial level, I consider sound source: PSG, FM, and Pulse-Code Modulation (PCM) sampling. Next, I map audio channels to sound functions such as sound effects, leads, bass lines, pads, drum beats, and color. Finally, I consider more intricate techniques of sound design including chorusing, reverb, stereo panning, and overtone manipulation.

Aligning these layers of score analysis sheds light on how various sound drivers harness the two sound chips and CPUs in different ways to make a certain set of possibilities available for composers. While some techniques, such as multi-channel echo and detuning, are remnants of the 8-bit era that are further explored with the expanded audio capabilities, others, such as bi-timbrality, MIDI conversion, and logic distribution, are more suggestive of conventions that would become prevalent in modern game composition. The sound design of the Sega Genesis therefore sheds as much light into early game music composition as it does on practices to follow.

Scott Walker's Avant-Garde Idiom and the Composition of Perceptual Space

Christopher Douthitt (Princeton University)

Scott Walker, who died this past March, was a former teen idol who later adopted a strange and, some would say, disturbing avant-garde idiom. His songs are considered visionary by critics and peers; they are also thematically dark and psychologically demanding. I propose that, in his late experimental work, Walker composes as much with the frames of his songs as with their contents; that is, he treats the typical fixed givens of rock music as primary material for manipulation. This strategy allows Walker to reinvigorate old tropes, but also unsettles the listener as the terms of engagement with the music keep changing underfoot. The song "Phrasing" serves as a case study. Working from a full transcription, audio data, and an index of sounds and images found in Walker's wider corpus, I analyze three overlapping areas of compositional manipulation in "Phrasing:" the "production space," in which dramatic contrasts in timbre, vocal effects, and instrumentation create a surreal sequence of acoustic environments; the "note space," in which octatonic harmonies, deconstructed backbeats, and atypical gestures simultaneously invoke and deny the orienting genre conventions of rock; and the "musico-poetic space," in which the sonic and lyrical signifiers of the song acquire enhanced meaning when read against Walker's highly idiosyncratic personal cosmos of signs. In manipulating a listener's multimodal experience of space, Walker invites interpretation using concepts borrowed from psychoanalytic theory. I conclude by situating Walker's late style in the context of other composers who similarly intervene at the level of the frame.

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; 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. This lends the music an additional dimension, as unnatural shifts between spaces are manageable with ease. While we undoubtedly process more familiar syntactic textural relationships, we also assess how sounds interact in a space while creating that very space. Musical interpretations in this context are shaped by distinctions between the sounds and our subjective experience of those sounds. I discuss three stylistically contrasting examples: the use of timebased 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).

CONTRAPUNTAL AND MENSURAL DISSONANCE IN THE 14TH CENTURY (MCKINLEY)

Jared Hartt (Oberlin College and Conservatory), Chair

A Tale of Two Moteti: Tonal Structures inVitry's *Flos/Celsa* and Gloria (Ivrea 64)

Ryan Taycher (University of Massachusetts Amherst)

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 (Fuller and Hartt) and cadential structure (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 suggests 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.

Hidden Coloration: Mensural Dissonance in Machaut Justin Lavacek (University of North Texas)

Current analyses of medieval polyphony typically feature a contrapunctus reduction—an imaginative reverse-engineering of the complex surface back to consonant first species counterpoint of the kind recommended as a starting point in medieval composition manuals. This practice is designed to reveal aspects of 14th-century harmony, counterpoint, and tonality, and in this it has been indispensably fruitful. However, the rhythmic and metrical innovations from which Ars nova gets its name have been undervalued and underrepresented by this standard reductive method.

While a contrapunctus analysis is not itself rhythmic, the analyst carefully considers rhythm when choosing pitches to include or exclude. My contrapunctus analyses go further, restoring and recreating medieval coloration to show grouping dissonances, following Krebs's conception. This effect at multiple mensural levels is incorporated into my reductions by

Thursday

restoring rhythmic values and inserting guidelines in each part individually. While a modern act of analysis, my tonal and metrical judgments are rooted in the medieval concept of the *directed progression* (Fuller's classic term). Because the arrival of perfect consonance defined Franconian metrical grouping, tracing directed progressions can allow one to draw a map of "downbeats," sometimes grounded in a regular flow and sometimes scattering tonal accents transformative of the formal organization. I will examine the tonal implications of metrical dissonances in two motets of Machaut and will revisit Cordier's famously eccentric rondeau "Tout par compas." With metrical ingenuity represented inextricably with counterpoint, my rhythmicized contrapuncti capture a more comprehensive snapshot of the 14th-century's subtle art.

PERFORMANCE: BODIES, COGNITION, TECHNOLOGY

Jonathan De Souza (Western University), Chair

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, toward the left of the keyboard. It strives toward resolution, which is attained by returning to a balanced center of gravity. I then 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.

Harmonic Function as Situated Cognition in Debussy Performance Practice

Daniel Shanahan (Ohio State University)

If culture, as cognitive philosopher Dan Sperber states, is the sum of communication and cognition (Sperber 1996, 97), the study of musical performance should include not only analyses of commonalities across performances, but also the artifacts of communicative constraints and pressures. A great deal of research has been done on how constraints in expressive timing in musical performance tend to be consistent in a number of ways: performers decelerate at the ends of phrases as a way of communicating grouping structure; they communicate metric structure with patterns of long and short durations (Sloboda 1983; see Ohriner). Examining multiple performative readings of the same piece can shed a great deal of light on the piece (see Dodson 2008; Ohriner 2012; Cook 2013).

Here, I present a corpus-based approach to examine the shifting trends in the performance of functionally-ambiguous phrases, examining multiple instances of functional ambiguity in performances of Debussy's *Préludes* throughout the 20th century. I argue that there is a marked change in how aspects of tension and resolution (and therefore harmonic function) are interpreted throughout the course of the past century and how these ambiguous moments seem to be situated culturally (Byros 2009). Early performances seem to exploit ambiguities more, and the treatment of harmonic function is one that is more explicit and direct in the later part of the 20th century. This paper discusses the ramifications of this, and how cognition and communication of musical structure through expressive timing is culturally and temporally situated.

"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 one 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 musicians in other genres, and "contributed to the post-premiere christening of *Black Angels* as the "Vietnam Quartet."

Thursday

As amplification technology progressed towards Crumb's ideal, differing performance methods arose: one in which the amplification has minimal timbral effect and another in which 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 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.

"The Tune Makes Very Scant Difference"??? Schema and Meaning in Guthrie's and Seeger's Performances of "This Land Is Your Land"

Alfred Cramer (Pomona College)

Woody Guthrie's "This Land Is Your Land" is best known in the version popularized in the 1950s by Pete Seeger and others. In examining the song's 1940 original manuscript, numerous commentators have observed verses about social problems and argued that the omission of those words in the later version is responsible for an idyllic, celebratory sunniness not intended by Guthrie. I argue, though, that the 1950s' version's optimism has a *musical* cause. Seeger understands the tune through different cognitive schemas than does Guthrie, and thus he shifts the song's meaning.

In recent music theory, cognitive schemas have been most widely noticed in Gjerdingen's studies of composers forming their craft by internalizing repertories of idiomatic exemplars rather than by proceeding from generalized plans and principles. But generalized plans and principles can involve cognitive schemas too. Thus, in Seeger's performance, the generalized scale-degree and tension-stability schemas of common-practice tonality intersect with linguistic schemas of intonational emphasis to express that *this* country (not another) belongs to all. In contrast, the schemas

behind Guthrie's interpretation are found in specific compositional models, including the gospel hymn "When the World's on Fire," Irving Berlin's "God Bless America," and the hobo song "Wabash Cannonball." These exemplars guide Guthrie's emphases, offering a reason why Guthrie might have expected listeners to hear a different narrative. Without knowing this context, however, listeners are likely to hear the song in Seeger's generalized tonal way, where even a stroll through dust clouds sounds like tension resolved.

LEWIN WHERE YOU LEAST EXPECT HIM (TAFT C)

Robert Cook (University of Iowa), Chair

Contextual Inversion and Form in Zwilich's Quintet (2011) Jessica Rudman (The Hartt School)

Ellen Taaffe Zwilich's music is characterized by organic yet unpredictable melodies and chord progressions. These intricate pitch structures are often created through the use of common-tone-preserving contextual inversions. This paper will present a theory for analyzing such pitch transformations and apply that framework to Zwilich's Quintet (2011).

Common-tone preserving contextual inversions can be applied to a wide variety of set classes. This allows a composer to use related processes on diverse pitch materials, creating a sense of coherence even when pitch collections differ. This can be seen in the Quintet, which features such inversions on a variety of melodic and harmonic motives.

Though the first movement is distinct in terms of its pitch content, it is related to the others through common-tone-preserving contextual inversions and quotation. The other two movements are both based on a single hexachord type that does not appear in the first movement. Presented most often as a six-note blues scale, this set class has two interesting characteristics that Zwilich exploits in the work: an embedded series of inversionally-related (025) subsets with the potential for RI-chaining, and a high capacity for common-tone-preserving contextual inversions. These transformations are particularly important in the finale, which can be interpreted as passes in a compositional space relating all 24 forms of the hexachord through inversion and transposition. These passes delineate the movement's ternary form and create a sense of directed motion in the music.

A Lewinian Investigation of Rhythmic Calculation in South Indian Carnatic Improvisation

Robert L. Wells (University of Mary Washington)

South Indian Carnatic music is built upon an incredibly intricate system of rhythm and meter, based on a background metric cycle called the *tāla* that performers and listeners track with specialized hand gestures (*kriyās*). Key to Carnatic conceptions of rhythm and meter are *sarvalaghu*, a rhythmic "flow" generated by gestures supporting the underlying tala, and *kaṇakku*, or "calculation," referring to more complex rhythmic phrases that generate tension with the tala. *Kanakku* plays a particularly important role in improvised portions of Carnatic performances, for soloists must determine precisely where to begin a rhythmic pattern and how many times to iterate it in order to end a solo at a desired point in the tala.

While previous studies have applied formal music theory to analyzing metric tension in Carnatic compositions and transcribed performances or have suggested *kanakku*-based improvisational strategies, this paper seeks to combine the theoretical and the performative. Namely, this presentation will investigate *kanakku*-based improvisation using Wells's (2015a; 2017) metric generalized interval system, (GIS) Met, which can quantify conflicts between the tala and a soloist's melodic/rhythmic phrasing. Using Met, this paper will numerically investigate how special rhythmic cadences called *mōrās* can be strategically implemented within various talas and transformed via changing beat subdivisions (*naḍais*) or expanding/contracting pulse units (*trikāla* technique). Through Met-intervallic analysis of such improvisational strategies, this paper will suggest new ways of conceptualizing *kannaku*-based improvisation that do not supersede traditional Carnatic methods, but provide a complementary perspective that can generate new insights into this sophisticated music.

Queer Phenomenology in Music Theory

Gavin Lee (Soochow University)

Davin Lewin's "Phenomenology" article (1986) has recently been explored from the perspectives of both Husserlian and post-Husserlian phenomenologies. In the article, Lewin proposed a "p-model," comprising a series of percepts or "p"s: events within perception-contexts of overlapping musical measures. Each "p" is recursive in that it modifies other "p"s and also implicates measures both before and after the defined percep-

tion-context. "Phenomenology" is peculiar because of the author's extended postlude of 35 pages, which is longer than the 31-page exegesis of the p-model itself.

The creation of the extended postlude stems from Lewin's anxiety over musical embodiment, leading to restless, reflexive self-critiques which I theorize as queer "bifurcations." "Bifurcation" refers to the emergence of new qualities in a dynamic system (Massumi 1995), which in cultural contexts refers to the relentless emergence of new trends, or in the context of music theory, the emergence of new points of view. Bifurcation is queer because new points of view bring about phenomenological moments of embodied disorientation (Ahmed 2006), just as the miller's song is tonally disoriented in the central passage from *Morgengruss*, from which the p-model was developed from. "Phenomenology" is queer because of the concentration of a series of bifurcations that can be discerned within the space of one article, exemplifying a non-normative impulse that contemporary systemic music theory can benefit from 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-Narcissuswatching-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.

POSTER SESSION (MCKINLEY)

Sara Bakker (Utah State University), Chair

Harmony, Timbre, and Form

Harmonic Syntax in the Canzonas of Frescobaldi

Samuel Howes (McGill University)

Frescobaldi's canzonas reflect the rapidly evolving harmonic language of the early 17th century and prefigure the formal and textural characteristics of the mid 17th-century instrumental sonata. My paper explores Frescobaldi's harmonic style in 44 three- and four-part canzonas, all publishedduring the composer's lifetime (Canzoni (1608), Il primo libro delle canzoni (1628-35), Canzoni da sonare (1634), Fiori musicali (1635), Canzoni franzese (1642)). Harmonic syntax is important in defining musical style, but it is poorly understood in 17th-century music. Previous studies of tonality at the beginning (Powers 1981, 1992, 1998) and end (Barnett 1998, 2002, 2008, 2010) of the 17th century do not address harmonic syntax. I argue that Frescobaldi's canzonas are an important link between the Renaissance and the Baroque, laying the groundwork for common-practice harmony and helping to establish tonalities that appear in the works of later 17th-century composers. I demonstrate that while some of Frescobaldi's tonalities have a sound of their own, others are highly similar, both in terms of chord histograms (tallies of occurrence) and chord progressions (modeled as Markov chains), forecasting the transpositional relationship between 18th-century keys.

Another Geometry of Music: Harmony and Counterpoint in Some Unextended Common Practices

Scott Murphy (University of Kansas)

The subtitular "extension" of Dmitri Tymoczko's (2011) A Geometry of Music is nominally of—but ultimately away from—some common tonal practices of the 18th and 19th centuries (hereafter, CPs). Endeavors to recuperate the book's first of "four basic claims," which is that "harmony and counterpoint constrain one another" (Claim One), demonstrate this divergence. Claim One supposes a polyphonic passage whose lines exhibit "conjunct melodic motion" and whose chords exhibit "harmonic consistency." For Tymoczko, pc transpositional or inversional equivalence

defines this consistency. Claim One purports that these two features require that the chords be either nearly even and thus relatively consonant, or clusters. However, using parallel motion, any chord can voice-lead with conjunct melodic motion to another equivalent chord, which Tymoczko acknowledges later in the book.

One could recuperate Claim One by replacing conjunct melodic motion with minimal idealized total voice-leading work, reverting to Richard Cohn's "overdetermination." However, the pitch-class equivalency that this recuperation necessitates also disowns aspects of CPs essential to any grammar-like theory for them: top line, bass line, and bass-defined harmonic consonance. Or one could recuperate Claim One by recognizing that conjunct melodic motion, avoidance of parallel motion, and preferred harmony constrain one another because any two of these disallow the third. Calling this "underdetermination," I have recognized this constraint in two-voice scenarios favoring imperfect harmony. Generalizing this two-voice model, I have fashioned a bounded geometry that can depict passages in any number of voices, whereby proximity to the boundary represents CP-typicality.

Shades of Sound, Subtle and Sublime—Theoretical Implications of the Color/Tone Color Metaphor

Lindsey Reymore (The Ohio State University)

The metaphorical relationship between sound and color has a rich and fascinating history within Western musical thought. In this paper, I address music theoretical and occult versions of the timbre-color metaphor and apply these considerations to Schoenberg's *Klangfarbenmelodie*, providing new support for Cramer's (2000) reevaluation of this concept through examination of Schoenberg's links with the color/tone color metaphor in contemporary occult culture.

I argue that critical subtleties of the color/tone color metaphor became masked by the way that early music science defined timbre as one of three separable dimensions of a tone, alongside pitch and loudness. I identify a more complex perspective on tone color from the 19th century and earlier, where timbral changes are considered as covarying with register, and call on the language of color, imposing visual properties on the realm of sound.

The second half of this paper examines how the history of the color/tone color metaphor relates to *Klangfarbenmelodie*, building on Cramer's (2002)

contention that *Klangfarbenmelodie* was originally conceived to involve the perception of the timbral colorings of frequencies. I explore how the history of the color/tone color metaphor relates to Schoenberg's definition of *Klangfarbenmelodie* and lends new support to Cramer's reading.

Finally, I propose another layer of historical and cultural context that enriches our understanding of *Klangfarbenmelodie*: Schoenberg's influences link him to occult traditions (Covach 1992) that held relationships between sound and color in high regard. These considerations affect the interpretation of *Klangfarbenmelodie* and exemplify how historical perspectives on metaphors can inform music theoretical concepts.

The Chromatic Wedge as Formal Marker in Marion Bauer's Duo for Oboe and Clarinet, op. 25

Anna Stephan-Robinson (West Liberty University)

Though patriarchal structures contributed to the neglect of Marion Bauer's music during her lifetime (1882–1955), contemporary scholars have begun to recognize its value. Recent book-length examinations assess Bauer's output, but their scope allows only brief consideration of her style; conversely, detailed analyses of individual pieces support narrowly focused critical readings. I bridge this gap by defining the "chromatic wedge," a gesture Bauer often employs to delineate sections, particularly in instrumental music of the 1920s and '30s. The chromatic wedge combines linear chromatic motion comprising at least five pitches with a pedal tone, brief ostinato, or second chromatic line in contrary motion. My poster will examine its use as a salient marker of formal boundaries throughout the Duo for Oboe and Clarinet, op. 25. The Duo makes an illuminating case study, as the chromatic wedge unifies the four diverse movements. More broadly, when moving away from traditional tonality, Bauer might have retained the wedge as a way to retain closing function in the absence of fifth relationships. As such, the chromatic wedge became one important element uniting Bauer's varied approaches to musical organization.

Follow the Solo: From Ritornello to Sonata-Form Concerto Omer Maliniak & Yoel Greenberg (Bar-Ilan University, Israel)

This study examines the evolution of concerto first-movement form in the 18th century through a diachronic approach, using empirical corpusbased data. Present-day scholarship examines 18th-century concertos either through the Vivaldian baroque ritornello lens, or the Mozartean classical hybrid ritornello-sonata one, resulting in two distinct notions. The emergence of the latter from the former is rarely commented upon in any depth. Here, we examine this process relying both on descriptions of form throughout the 18th century and on an extensive corpus study comprising 210 concertos, composed between 1711 and 1789. Through analyzing tutti-solo alternations, thematic recurrences and the tonal trajectory, we argue that the concerto transformed through two important trends: the growing importance of the solos, and the movement reorganization in larger-scale units beyond the textural division. Specifically, we demonstrate that the increase in the concerto movement length occurred through the expansion of the opening ritornello, and the first and last solos. The middle and final ritornellos received decreasing roles, eventually regulated to mere solo articulation. We also show that a final tonic recapitulatory section, initiated by the main theme around three-fourths through the movement, was a common concerto procedure early on.

Although some of these trends have been noted both by contemporary (Quantz, Koch) and modern (Talbot, Caplin) theorists, the diachronic corpus-based approach presented here allows us to appreciate the process of change, to identify significant milestones during that process, and to provide a chronologically-sensitive framework for evaluating mid-century works on their own terms, rather than on those of Vivaldi or Mozart.

Paths through Popular and Post-Tonal Music

Pousseurian Mobile Form in Production Library Music for Television

Greg McCandless (Appalachian State University)

Due to an intricate power structure at play during an often lengthy composition and revision process, producers of background music for television frequently need to take a non-linear, mobile approach to writing music that is eventually perceived as being linear. While this mobile approach is reminiscent of those by Brown, Boulez, and Stockhausen, it correlates most strongly with Pousseur's method of creating *Scambi* (1957), an avantgarde piece in which the composer discussed aiming for "complete continuity" by composing flexible modules with beginnings and endings that were "of like quality" that could be combined in several ways without transitions between them (Pousseur 1959).

In this poster presentation, I provide a "harmonic pathing model" (following Thomas 2016) that can be used in the composition of rock tracks

Friday

for production libraries in order to ensure harmonic flow between sections despite any potential formal reordering, while adhering to principles of idiomatic progression in pop/rock genres as theorized by Christopher Doll (2017).

Following the introduction to my harmonic pathing model, I provide a meta-analysis of a corpus of 237 rock tracks from the Emmy-nominated RRHOT production library (CBS, CBS Sports), in which I discuss the degree to which pathing model adherence may play a role in overall track flexibility and, ultimately, library acceptance. Lastly, I discuss the broader implications of this harmonic pathing model, which provides a helpful pedagogical and compositional tool for pop/rock music more generally.

The Many Paths of Decolonization: Exploring Colonizing and Decolonizing Analyses of A Tribe Called Red's "How I Feel"

Robin Attas (Queen's University)

Despite ongoing calls for diversity in music theory pedagogy and analysis, for the decolonization of music research societies, and for the decolonization of academia more broadly, music theory seems slow to change. Perhaps this is partly because the field's researchers are predominantly white and focused primarily on the repertoire and analytical techniques of Western Europe. Yet these should not be excuses. This poster calls the discipline to action, not by providing definitive answers, but by showing that decolonization begins by asking appropriate questions. Using a case analysis of "How I Feel" by Indigenous DJ collective A Tribe Called Red, I focus on a particular kind of decolonization, considering the relationship between a white settler researcher and Indigenous musicians in presentday Canada. I begin by presenting typical analytical starting places (the song's large-scale form, pitch content, texture, and rapped flow) before explaining how the preliminary analysis (and the sketch of the discipline it represents) might be seen as colonial and insufficient, given the dominance of a particular culturally-situated understanding of music and analysis. Drawing from Indigenous and settler scholars in multiple disciplines, I explore several research questions that could rebalance the analysis, and by extension the discipline, toward decolonizing and Indigenizing musical perspectives. By outlining numerous analytical strategies, I present a view of decolonization as a process, open the discipline to multiple perspectives, and inspire action among theorists to reconsider biases and decolonize analysis in their own local contexts.

Post-Tonal Postcards: Synthesizing Analysis and Reflection through Prose Writing

Angela Ripley (College of Wooster)

When first encountering post-tonal music, students discover repertoire that differs aesthetically from music they have previously studied and requires new analytical tools. To help students approach this repertoire with open minds, I frame my undergraduate post-tonal theory course as a virtual study-abroad experience with "postcard" assignments that synthesize analysis and reflection through prose writing. Each postcard includes a 300- to 500-word essay (message) and a single page of annotated musical examples (picture).

In their postcards, students analyze complete compositions through the lenses of specific themes. For example, students discuss pentatonic collections and pitch centricity (Debussy, "La fille aux cheveux de lin"), explain how imitation and z-cells provide unity and contrast (Bartók, "Chromatic Invention 1"), explore relationships among pitch-class sets (Webern, Op. 7, No. 3), and select their own repertoire to illustrate the course concepts they find most important. The underlying theoretical framework for these assignments comes from Self-Determination Theory, which includes intrinsic and extrinsic motivation as well as humans' basic psychological need for autonomy, competence, and relatedness.

Students respond positively to the postcard assignments, developing creative titles as captions and sometimes formatting their assignments to look like real postcards. By addressing their postcards to different recipients (peer, novice, expert, and future self), students learn to communicate effectively in diverse rhetorical contexts. Additional pedagogical benefits include greater independence in music analysis and increased confidence in writing about music. With insightful analytical comments and language tailored to their intended recipients, the postcards become souvenirs of learning from students' exploration of post-tonal music.

Metric Complexity

Influence of Bluegrass and Radiohead on Metric Complexity in Punch Brothers

Rachel Hottle (McGill University)

Punch Brothers is a progressive bluegrass ensemble whose work defies genre categorization, invoking styles as disparate as country, rock, and art

Friday

music. Their music is often metrically complex, but this complexity presents an analytical challenge, owing to their varied genre influences. I propose a comparative genre analysis of metric complexity in Punch Brothers, drawing on metric conventions common in bluegrass and in the music of Radiohead.

Radiohead is often considered to be one of Punch Brothers's biggest influences. I draw on Brad Osborn's 2017 categorization of what he refers to as "metric salience" in Radiohead's music to identify instances of metric complexity in Punch Brothers that are influenced by Radiohead. Building on Joti Rockwell's (2011) exploration of metric disruptions in old-time country and bluegrass music, and James Palmer's (2017) application of that work to Punch Brothers, I also characterize instances of metric complexity in Punch Brothers's music that are primarily bluegrass-influenced. My comparison of these examples shows that Punch Brothers's Radiohead-influenced metric complexity differs from their bluegrass-influenced metric complexity in three key ways: the use of non-isochronous (NI) meters, formal functions of metric disruptions, and preservation of the tactus.

It is my hope that this work will pave the way for future comparative genre analyses, both within individual musician's work and across artists. Comparisons of generic conventions, especially in the under-studied area of meter, can help us determine the features of meter that are common to a specific genre, and those that are more broadly used across genres.

Hemiolas in Non-Isochronous Meters

Jay Smith (Texas A&M University - Kingsville)

A provocative title such as "Hemiolas in Non-Isochronous Meters" likely arouses skepticism. Indeed, non-isochronous meters are incompatible with Richard Cohn's conception of hemiolas: "any successive or simultaneous conflict between a bisection and trisection of a single time-span." To follow Cohn's designation, grouping dissonance across the time-span of a 5/4 measure would need to be divided into two (2 1/2 quarter-notes) and three (1 2/3 quarter-notes), whereas in musical practice, 5/4 meters typically divide to 2+3 or 3+2 quarter-notes. Cohn recognizes the limitations of his methodology regarding non-isochronous pulses, which are addressed by Zachary Cairns. Cairns posits "shared-cardinality grouping dissonances" that occur in non-isochronous meters (i.e., 5/4 grouped as 2+3 vs. 5/4 grouped as 3+2 shown with Lerdahl/Jackendoff-style dots). Although Cairns's methodology effectively illustrates occurrences of

grouping dissonance involving non-isochronous pulses, it does not illuminate relative level of dissonance as Cohn does. Cohn addresses level of dissonance by expounding simple, double, and complex hemiolas, the latter defined as 2:3 conflict occurring at three or more metrical levels. This poster brings together Cairns's discussions of shared-cardinality grouping dissonance and Cohn's discussions of hemiolas by modifying Cohn's metric states and metric space visuals to allow for non-isochronous pulses. These modifications illuminate metrical conflict in a variety of repertoires, including Holst's "Mars" from *The Planets*, Gabriel Pierné's Piano Quintet, no. 41, and Heitor Villa-Lobos's *Próle do Bébé*, no. 2.

Mathematics, Technology, and Data Science

The Myhill Property: The Strong vs. the Weak

M. A. Coury-Hall (New York City)

It is shown that the Myhill Property of diatonic set theory has a less strict version: the Weak Myhill Property (WMP), contrasted with the standard definition denoted as the Strong Myhill Property (SMP). This weak version applies to a more comprehensive, mathematical group of tonal structures, including the three tonal scale systems named by Hungarian theorist Lajos Bárdos as Heptatonia Prima (H1), Heptatonia Secunda (H2), and Heptatonia Tertia (H3). All three scale systems have a distinct Circle of Modes (each consisting of 84 scales with 7 distinct modes in all 12 keys). Only the Circle of Modes from our traditional diatonic scales (H1) can be constructed by a single chromatic alteration to each scale in the circle. This is a consequence of SMP. The Circle of Modes for H2 and H3, on the other hand, can only be constructed by a net chromatic alteration; a consequence of WMP. Even though it is impossible to transpose any scale within H2 or H3 by altering a single pitch chromatically, as their key structures are more complex than H1, it is possible to transpose these scales systematically through all four heptatonic scales (H0, H1, H2, and H3) if taken together. By raising only one pitch at a time by a half-step, these scales form a new mathematical group, the Heptatonic Circle, resulting directly from WMP. From these constructions, we conclude that WMP warrants further investigation by music theorists and deserves a rigorous treatment in mathematical music theory.

Can a Leaf Make Music? Techniques and Aesthetics of Plant-Generated CV in Electronic Music

Paul Miller (Duquesne University) & Brian Riordan (University of Pittsburgh)

Research has revealed that plants are more electrically active than previously thought, producing and transmitting both action potential (AP) and variation potential (VP) through their tissues. Seeking to harness this novel source of electrical activity, composers, improvisers, and commercial companies have constructed innovative devices that convert biological electrical signaling into MIDI control codes or control voltage (CV). In this way, plants can trigger or modify sounds in an electronic synthesizer or computer.

Our project has two branches. First, we investigate the question of how and why plants produce and transmit electrical signals, based on a large and growing corpus of research in the biological sciences. We provide a novel catalog of how various species of common plants generate AP/VP under different environmental conditions.

Second, we interrogate aesthetic questions around human responses to plant-structured music. Much of this music shares common stylistic characteristics. We situate the practice in a broader cultural landscape. What is it, to compose or improvise music with non-human collaborators? How does our bias—reflected in plants' "othering" in taxonomic systems dating back to Aristotle and Linnaeus—influence our response? How can human communities create music together by interacting with the environment?

Our work on these problems has resulted in several profitable and successful collaborations between our team and colleagues in the STEM fields at our respective universities. The poster session includes a live demonstration of "plant music," using three modular synthesizers and several species of plants. We invite you to come by and interact with the greenery!

Musical Topics in Mozart's Piano Sonatas: A Data Science Approach

Jessica Narum & Andrew Watkins (Baldwin Wallace University)

Extending from the work of Ratner, Agawu, and Monelle, recent scholarship in topic theory has set to more clearly define the musical elements that create a topic. Contributions from Rumph and Frymoyer provide

ways of considering the constituent elements of a topic (figurae) both in isolation and in relation to one another. The resulting lists of figurae not only aid analysts in understanding topics but also suggest that these features could be identified in a machine-learning context. In this interactive poster session, we will show the promising results of our first forays into computational analysis of musical topics. Specifically, our findings demonstrate applications of data science methods that have implications for both further analytical inquiry and the dissemination of research concerning musical topics.

Our data science approach included the steps of data gathering and cleaning, exploratory visualization and analysis, and predictive modeling. After completing an analysis of the topoi in Mozart's piano sonatas by measure, we combined humdrum formatted versions of the scores and the music21 music analysis software library to extract a wealth of features about each analytical segment. In addition, we have used early data visualizations to help identify areas for further exploration; these visualization tools suggest new ways of considering the presentation of information about topics in general, as well as the topics within Mozart's piano sonatas specifically. Finally, we have begun to use the extracted data to develop predictive models of topics within the sonatas.

FRIDAY MORNING SESSIONS—9:00–12:15

ANALYZING THE MUSIC OF THOMAS ADÈS (HARRISON)

Yayoi Uno Everett (The University of Illinois at Chicago), Chair

This special session focuses on the music of the British composer Thomas Adès (b. 1971). A roll-call of the awards and recognition for Adès demonstrates the global appeal of his music. Given the prominence and unarguable success of Adès's music, it is not surprising that he has been subject to far greater musicological attention than many of his peers. A positive review in *The New York Times* by Richard Taruskin of Adès's music became an early reference point. Taruskin argues that "for all its precocious technical sophistication and its omnivorous range of reference [...] it does not put everything in quotes.' It has urgency and fervor, and communicates directly" (Taruskin 1999/2000, 145).

In the last 15 years, there has been a growing body of articles, book chapters, and theses and dissertations dedicated to, or featuring, Adès's music.

Friday

The six papers in this integrated special session add to this growing body of scholarly work. The session is timely, in that it occurs some two decades after the publication of Taruskin's review, enabling the contributors to take stock of the evolving body of work dedicated to Adès, and to point to future directions for the growing field of Adès studies. In this way, it will be ideally positioned to make a significant contribution to the literature on Adès's music.

Automatism and Tonal Discombobulation in the Mazurkas of Thomas Adès

Brian Moseley (SUNY Buffalo)

Thomas Adès often suffuses his music with transformations of music past and present. His penchant for producing discombobulated representations of other music—as in the macabre cancan of Lieux retrouvés; the warped "Dies irae" in *Totentanz*; or the distorted rave of "Ecstasio"—has caused numerous critics to remark on the music's surrealist qualities (Taruskin 2009; Fox 2004; Massey 2012, Service 2012; Cooper 2017; Venn 2017). These re-makings of specific works, styles, and genres are matched by similar transformations of generic and familiar sounds and patterns, like the discombobulating (016) that follows the tonic and dominant chords that begin the Piano Quintet (Stoecker 2014). Common to each mode of allusion is the underlying presence of defamiliarization. Adès's music constantly renders familiar sounds strange, uncanny, and, on occasion, bizarre. Drawing primarily from his four recent mazurkas, this paper explores techniques that Adès uses to meld abstract patterns to generic tonal objects like triads and scales, and it situates these techniques alongside two axioms of surrealist art and music from the 1920s and '30s, defamiliarization and automatism. I show how these fusions fundamentally transform his mazurkas by creating local, large-scale, and structural distortions of familiar musical processes and methods of organization.

Paths, Spirals, and Extraordinary Cycles: The Chaconne in Thomas Adès's Violin Concerto

Philip Stoecker (Hofstra University)

Thomas Adès has often described the use of repetitive patterns and cycles in his music. Analyses by Roeder (2006, 2009, and 2014), Stoecker (2014, 2015, and 2016), Travers (2004), and Venn (2006, 2014, and 2017) have shown how Adès's pitch patterns govern local, small-scale events. Venn further notes that "Adès frequently combines or extends [pitch cycles] in order to generate larger structures or even the premise behind entire

movements" (2017a, 23). Building upon their work, this paper focuses on a large-scale form in Adès's music—a somewhat neglected corner of scholarship to date—and the ways in which Adès uses pitch and rhythmic cycles to create a chaconne. This paper, then, focuses on the chaconne in the central movement of Adès's Violin Concerto (2005).

According to Adès, "[a] chaconne is simply one kind of harmonic motion. In my music it's very often spiral rather than circular—in other words, it's transposed down with each appearance ..." (Adès and Service 2012, 7–8). Although Adès's comments emphasize pitch rather than rhythm, this paper focuses on the temporal structures of Adès's chaconne and how the solo violin sometimes agrees with, and sometimes contradicts with, the rhythmic continuities projected by the larger-scale harmonic progression of the chaconne. To date, the rhythmic structure of "Paths," the central movement of the concerto, has been overlooked. This paper will thus demonstrate how Adès creates conflicts between the "stable," spiraling chaconne progression and the rhythmically dissonant solo violin.

A World in Constant Motion: Thomas Adès's *In Seven Days*Amy Bauer (University of California, Irvine)

Critic Joshua Kosman noted that Thomas Adès's In Seven Days: Piano Concerto with Moving Image (2008) "seems to want to embrace the whole world." The concerto outlines the Biblical creation story in seven connected movements, accompanied by coordinated projections by video artist Tal Rosner based on images of the two venues that commissioned the work (London's Royal Festival Hall and Los Angeles's Disney Hall). In Seven Days merges the figurative and the abstract to parallel modern allegorical readings of Biblical creation. A theme and series of seven variations outline successive "days" illustrated by specific musical devices, the whole divided into two halves that appear to follow the framework interpretation of Genesis.

The musical allegory presented by *In Seven Days* suggests a creation shaped as much by implicit scientific principles as the theological notion of a supreme being. The piano functions in this context less as a virtuosic soloist than a guiding force, a "consciousness" that directs the expansion of the work, drives the generation of harmonic and rhythmic patterns, and occasionally arrives, in medias res, to comment on the work of creation. A separate musical narrative runs in parallel to the narrative of Biblical creation—one shaped by the refinement of Western musical techniques,

such as canon, which themselves display a cyclical history of musical development from early polyphony through 20th-century modernism and minimalism. Hence, the paper concludes by demonstrating that the "whole world" of *In Seven Days* embraces a musical creation myth as well.

How You Speak to Me: Word Setting in Thomas Adès's Powder Her Face (1995)

Edward Venn (University of Leeds)

Philip Hensher (2008) has spoken of the way in which his libretto to Thomas Adès's first opera, *Powder Her Face* (1995), was influenced by Wayne Koestenbaum's 1993 discussion of the operatic silencing of women's voices. The opera's protagonist, the Duchess of Argyll, is accordingly silenced twice—first in a notorious "fellatio" aria, and second, figuratively, through her eviction in the final scene from the hotel in which she was living. Critical responses to the opera have extended this premise to demonstrate how such silencings are mobilized within patriarchal and class-based systems (Gallon 2011; Stevens 2017). To date, however, much less attention has been given to the Duchess's sounding voice within the framework of these silencing elements, to the detriment of a fuller understanding of her as a musical and dramatic agent.

This paper will offer a theoretical model for analyzing Adès's shifting approach to word-setting in response to the varying demands of dramatic situation and musical imperatives, illustrated with reference to the Duchess's music in the first and final scenes of *Powder Her Face*. The distinctiveness of the Duchess's voice through all these shifting contexts is such that the hotel maid can mimic her vocal mannerisms, prompting the Duchess to exclaim "How you speak to me!," while simultaneously reinforcing how the Duchess speaks to us. Given the importance Adès has placed on text-setting (Adès and Service 2012), an approach to prosody and word-setting in his music is long overdue.

The RICH logic of Thomas Adès's The Exterminating Angel and The Tempest

John Roeder (University of British Columbia)

Thomas Adès described the composition of his operas *The Tempest* (2003) and *The Exterminating Angel* (2016) as the "organic, necessary" linking of "tiny cells" into larger structures by a "musical logic." Observations by Cao, Gallon, and Venn suggest that the pertinent cells are simply dyads.

This paper demonstrates how, in both operas, the logic of the dyad successions is a transformational one, consisting of retrograde-inversion chaining (RICH).

In *The Tempest*, the basis for the RICH chain is a voice leading of a perfect fifth to a minor third. Reiterating RICH thrice carries the progression back to the initial dyad, forming a short cycle, which Adès assembles into larger cyclic structures that endow each dyad with an ensemble of possible continuations, closures, denials, and surprises. The chains direct the protagonists' musics in ways that express Prospero's power and Caliban's resistance.

Such RICH logic, applied to different materials, also permeates *The Exterminating Angel*. In this case the RI-chaining constitutes an octatonic structure that in some passages may be heard to represent the eponymous force that dissipates the characters' will. But the progression is also used to underwrite more purely musical structures. For instance, it generates the tonal plan of the Act I lovers' duet, and it coordinates pitch, rhythm, tonality, and form in the "Fugue of Panic." Most dramatically significant, though, is the role that RI-chains play in the pivotal moment of the opera, when Leticia's defiant singing releases the guests from the "abulia" that traps them.

Living Toys in Adès's *Living Toys*: Transforming the Post-Tonal Topic James Donaldson (McGill University)

This paper introduces a model of topics as a dynamic interactive process in post-tonal music. A freedom from tonal syntax allows a larger range of potential topical relationships. To analyze these, I introduce the analytical method of Topical Networks. First, I establish topical hierarchies (the Elementary, Intermediary, and Actant levels) and, through mapping transformational networks onto levels of topical characteristics, I model relationships between topics. Applying concepts from the literary semiotic theories of Greimas (1966) and Eco (1976, 1980), I ally these models onto broader narrative models. The degree and nature of such relationships can be mapped across a work, demonstrating how topical interactions can guide expressive form.

I apply this method to the opening three movements of Thomas Adès's *Living Toys* (1993). A descending chromatic line is transformed through an aligned cycle to become an obsessively repeated reference to "Three Blind

Mice." Through retrograde and expansion, this becomes the Hero topic; continuing such a process, I create networks of five topics in the opening three movements. I adopt categories of troping from Hatten (2014) (productivity, compatibility, dominance) to describe such instances of isolated interaction. I then trace the changing relationships across networks, mapping semantically-significant developments and the dynamic treatment of the musical objects. Adding a temporal dimension is suggestive of a narrative reading, leading to a reflection upon this method within the broader historical context and motivations of the semiotic theories.

CONTEMPLATING AND MAKING THE TRANSITION TO ACADEMIC ADMINISTRATION (TAFT C)

Sponsored by the Professional Development Committee Stanley V. Kleppinger (University of Nebraska-Lincoln), Chair

Sarah Ellis (University of Oklahoma)
Ryan McClelland (University of Toronto),
Catherine Nolan (Western University)
Matthew Shaftel (Ohio University),
Stanley V. Kleppinger (University of Nebraska–Lincoln)

How do I know if administration is right for me? When during my career is the right time to consider an administrative position? How do I balance teaching, research, and administration? How do I keep a connection to music and to music theory alive in an administrative position? How do I prepare to be a successful applicant for an administrative position? What are the skills necessary to being a successful administrator? What do administrators in various roles do?

These questions form the focus of this session. Mid-career music theorists may be interested in administrative positions, as our field's penchant for analysis and structured thinking predisposes us to the kinds of tasks administration requires. This session aims to demystify the transition to administration, and to help scholars make an informed decision about seeking or accepting an administrative role.

The session will begin with presentations by four theorists whose career trajectories have taken them into administrative positions, followed by a discussion period among the panelists that includes questions from the audience. Our goal is that attendees will leave the session with a clearer idea of how they might navigate career opportunities in administration, as well as the joys and challenges those opportunities represent.

PSYCHOACOUSTIC DISSONANCE AND CONSONANCE (TAFT A)

Alfred Cramer (Pomona College), Chair

"Mutated Octaves" in 20th-Century and Contemporary Orchestration

Joshua W. Mills (University of Florida)

As harmonic practice expanded beyond the sonorities of common-practice tonality, the range of textures and colors available to orchestral composers likewise grew. The relationship between harmony and color in this context is a complicated one, and lines between the two are not always clearly defined. This paper starts from the hypothesis that timbral listening is an inherently embodied, ecological, and mimetic mode of listening, and proceeds to explore a particular orchestrational/harmonic technique found in 20th-century and contemporary orchestral literature: "mutated octaves," a variant of traditional doublings at the octave that injects additional pitch classes into the octave. Mutated octaves are part compositional technique and part perceptual phenomenon. As perceptual phenomenon, mutated octaves can be classified according to the level of perceptual fusion they elicit. The varying levels of perceptual fusion—high, medium, and low—correlate with the vertical intervallic structures found in the sonority. In addition to offering a fresh perspective on the harmonic techniques at play in such passages, the experience of "mutated octaves" implicitly offers a critique to the score-as-text approach to music analysis; by grounding the analysis as an aural- rather than ocular-centric approach, the act of hearing mutated octaves in the music places the listening subject's relationship with the performers on equal footing with the score per se.

Unmasking the "Foreign Body:" Large-scale Formal Process and Microtonal Language in Georg F. Haas's String Quartet No. 1

Alexis Millares Thomson (University of Toronto)

Georg Friedrich Haas (1999) defines four categories of microtonality: equally-tempered divisions of the octave or other intervals, intervals derived from the overtone series, near-unison intervals, (*Klangspaltung*, tone-or sound- splitting), and aleatoric techniques. Haas then discusses the compositional design of his Quartet No. 1, describing a "foreign body"

Friday

that gradually infiltrates the descending shapes of the beginning. It eventually surfaces with greatest clarity two-thirds of the way through the composition, thus "removing its mask." Once revealed, the foreign body begins to decay, obscuring its identity in future appearances.

I trace the path of the foreign body—the acoustically tuned dominant seventh chord—as it intertwines with other microtonal types. Close inspection of each appearance of the foreign body unveils a large-scale formal process through a background progression of these chords spanning the entire composition. While initial appearances of the chord seem arbitrary, they are in fact guided proportionally according to the golden ratio, and are used to structure the first half.

Haas's use of microtonal types in this work create contrast that can aid a listener in perceiving structures and making large-scale connections. However, the question of understanding certain microtonal sonorities remains open. I contemplate different options for interpreting such sonorities and suggest that Hass's microtonal types can lead to reconsideration of microtonal harmony. This paper extends the work of Hasegawa (2015), who analyzes the juxtaposition of intonation modes in two further works by Haas, and complements analyses of microtonal language as in Elster (1991), Gann (1993), Gilmore (1995), and Werntz (2001).

Listening to Sensory Dissonance Through Time in Minimalism Brad Gersh (Princeton University)

Recent work by Damien Blättler, Daniel Harrison, and others has drawn attention to the complex interactions of interval qualities within a chord. A wide dissonance, for example, may seem softer when divided into smaller consonances, and a consonant interval might be challenged by other dissonances to varying degrees. Such vertical effects become prominent when a static sonority is sustained as a drone or changes only gradually, as in some music by Webern, Messiaen, Ligeti, and Reich. A more flexible method to describe the interactions of tones within a static chord would thus be useful.

In this paper, I propose one step toward this goal through a revision of William Sethares's model of sensory dissonance. Sethares's procedure, with origins in the work of Helmholtz, computes a score representing the total strength of dissonant partials in the spectrum of a chord. In a similar manner, we might compute a score of "consonant," overlapping partial-

pairs. The ratio of these scores allows us to compare the relative dissonance of chords of any cardinality and corrects for the excessive decline in predicted dissonance as intervals increase in size.

Relative dissonance can take a form-building function, as reflected in this ratio. Arvo Pärt's *Fratres* shows an arch form with an apex in relative dissonance coinciding with the loudest dynamic; this dissonance pattern may be more perceptible to an auditor than the process that generates it. Likewise, Section I of Reich's *Music for 18 Musicians* reaches a rhetorical climax just where relative dissonance reaches a local nadir.

FRIDAY MORNING SESSIONS—10:45–12:15

METER, FLOW, AND GROOVE IN HIP HOP (MCKINLEY)

Megan Lavengood (George Mason University), Chair

Metric Transformations in Hip-Hop and R&B Sampling Practice Jeremy Tatar (McGill University)

This paper explores the possibilities of metric transformation when one song samples material from another. Most commonly associated with hiphop and electronic dance music, and part of the broader tradition of musical "borrowing," sampling has offered a rich framework for investigations into intertextuality, legality, ethics, and advancements in music-making technology (Katz 2004; Schloss 2004; Williams 2013). Few analyses to date, however, have examined in detail the ways that existing materials are transformed metrically in new settings.

Drawing on examples from 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, which involves 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 (Lerdahl and

Jackendoff 1983). 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.

Segmentation and Phrasing in Hip-Hop Flow

Ben Duinker (McGill University)

This paper investigates segmentation and phrasing in the rapped vocals, or flow, of hip-hop music. The main—but by no means the only—techniques MCs (rappers) use to organize lyrics into flow are rhyme, rhythm, breath patterning, and syntactic closure. Ohriner (2016) notes that rhyme, syntactic closure, and breathing are usually the most prevalent markers of such organization, but he suggests that using each of these markers to analytically segment a passage of flow would reveal different segmentation structures for the same passage. I explore this issue by undertaking a segmentation-based analysis of passages of flow drawn from old-school (1979–85), Golden-Age (1986–93), and late-1990s hip-hop music, using examples from Roxanne Shanté, Eric B. & Rakim, and The Notorious B.I.G. to suggest that flow styles emerging in the Golden Age and onward increasingly feature passages that produce multiple, divergent segmentations depending on the criteria used to segment them. These divergences complicate efforts to define what constitutes a phrase of flow, a complex notion explored by Condit-Schultz (2016) and Adams (2017), but otherwise only receiving implicit definition or passing mention in recent hiphop scholarship. Adapting the work of Rothstein (1989), Attas (2011), and Condit-Schultz, I propose a method of discerning flow phrases by considering the aural salience of segmentation markers, the groupings these markers suggest, the internal, motional characteristics of these groupings, and their metric relationship with the song's beat layer (sampled or instrumental accompaniment).

Metric Complexity, Lyric, and Groove in Selected Verses of Eminem

Mitchell Ohriner (University of Denver)

This presentation reframes the concept of groove in the rapping voice and introduces the concept of the groove class. Following Cohn's "Platonic" funky rhythms, a groove, in my construal, is an idealized, repeating combination of inter-accent durations, restricted to two or three 16th-notes, that sum to one measure. Further, I introduce an algorithmic seg-

menter that partitions a rapped verse into groove sequences. This algorithm selects from all viable grooves at a given moment, prioritizing those that are longer and more conformant to the sounding accentual pattern.

These grooves differ in metric complexity, a summation of the metric "weakness" of those positions within the meter that carry accent. In three analyses, I demonstrate Eminem's use of this variable metric complexity, showing how trajectories of metric complexity mirror narratives within his lyrics both within and between verses in a track. This construal of groove and the algorithmic segmentation method has potential for theorists of rhythm in other groove-based musics. More so, the analyses in this presentation form a bridge between approaches to analyzing rap from the perspectives of musical rhythm and poetry. While these approaches have much to offer each other, as yet they rarely intersect.

RETURNING TO/IN SCHUBERT'S SONATA FORMS (TAFT A)

Suzannah Clark (Harvard University), Chair

Metrical Dissonance and Hypermeter in Schubert's Sonata Forms Hei Yeung John Lai (University of British Columbia)

This paper explores a particular kind of interaction between metrical dissonance and phrase rhythm in Schubert's sonata forms. By integrating theoretical concepts derived from Harald Krebs with the model of sonata form developed by James Hepokoski and Warren Darcy, I explore how metrical dissonance and "hypermetric subliminal dissonance"—a type of phrase rhythm that is specifically associated with the subliminal dissonance—can be heard to shape the structures and processes of Schubert's sonatas. To demonstrate such interaction between metrical dissonance and phrase rhythm in sonata form, this paper analyzes the first movements of three instrumental works by Schubert: the Piano Sonata in E Minor, D. 566; the Piano Trio in E-flat Major, D. 929; and the Piano Sonata in C Minor, D. 958.

These works share three strategies of metrical dissonance: to articulate formal boundaries, to expand and so loosen a theme, and to destabilize progressions that lead to structural cadences. Meanwhile, I argue that the particular metrical dissonances used in these pieces proceed in tandem with the teleological trajectories of tonality characteristic of sonata form.

In sum, this study contributes to a growing literature on temporal relationships in music of the early 19th century (Hyland 2016; Krebs 1999 and 2014; VonFoerster 2011). Apart from its examination of metrical dissonance, this study also seeks to fill a gap in our understanding of the relationship between phrase rhythm and sonata form in Schubert's music, a relationship that has been substantially investigated in other repertoires (Ng 2012; Rothstein 1989; Temperley 2008).

Diatonic Indeterminacy and Double Returns in Schubert's Piano Sonata in B-flat Major, D. 960, i

René Rusch (University of Michigan)

This paper explores how form and cadential closure can affect our perception of musical passages that cross an enharmonic seam, particularly in cases where the relationships between harmonies or tonal regions can be construed as diatonically indeterminate. Using Tovey's (1928) discussion of Schubert's Piano Sonata in G Major, D. 894, as a point of departure, I consider two related passages from the Piano Sonata in B-flat Major, D. 960, i (mm. 1-80 and 216-258), both of which feature the same enharmonic juncture. For each passage, I compare a diatonic hearing to a neo-Riemannian one, using Caplin's theory of formal functions (1998) and cadential closure (2004, 2018) as a heuristic guide. I suggest that a diatonic and neo-Riemannian hearing can converge in the second passage from D. 960, because the double return of the reprise and home key within the main theme's apparent ternary design confirms the global tonic, B-flat major, regardless of the enharmonic shift. With respect to the first passage from D. 960, I propose that the two hearings of the tonal regions may diverge; closure in both F-sharp minor and A major can encourage us to regard the exposition's final region, F major, as diatonically remote from the global tonic. Repeating the exposition not only restores the link between these two regions, but also invites us to reconfigure the tonal relationships perceived in our initial hearing. My paper concludes by contemplating the value of diatonic indeterminacy and by considering how the two hearings of the first passage can be complementary.

Foreshadowing Strategies in Schubert's Three-Key Expositions Aaron Grant (Missouri Western State University)

Few of Schubert's evocative compositional moments have attracted more attention than the G-flat trill at the start of the D. 960. The trill first interrupts the primary theme by emphasizing a chromatic pitch through texture, rhythm, dynamics, and register. Its disruptive nature has led many

authors to turn to narrative explanations when accounting for it. Fisk (2001) and Pesic (1999), for instance, personify the piece as a wanderer that journeys through the exposition's large-scale harmonic plan—the trill portending the protagonist's banishment into the second tonal area's (2TA's) F-sharp minor tonality similarly to Edward T. Cone's promissory note.

Though the trill is not exactly a promissory note, Fisk and Pesic's narrative demonstrates that hearing certain tonal events of the exposition as arising from an initial portentous morment can offer a compelling way to understand an exposition's trajectory. Authors commonly invoke such foreshadowing narratives in readings of Schubert's music, particularly his songs. Despite this, only a few scholars have explored the role of foreshadowing devices in Schubert's three-key expositions, and of those, all have focused on explaining the generically unexpected key of the 2TA.

Foreshadowing strategies and their concomitant narratives, however, can effectively shape our hearings of many of Schubert's three-key expositions in far more varied ways than simply explaining 2TAs. This talk will use D. 840/I and D. 537/III to demonstrate two such instances. In doing so, my hope is to begin illuminating the range of narrative possibilities inherent in these expositional structures.

FRIDAY AFTERNOON SESSION—2:15-5:30

DIVERSITY IN MUSIC THEORY PEDAGOGY (TAFT C)

Sponsored by the Committee on Race and Ethnicity Somangshu Mukherji (University of Michigan), Chair

Part 1. Instrument-Making Activity (30 minutes)

Quintina Carter-Ényì (University of Georgia), Moderator Marvin Wayne Allen (Morehouse College), Ariel Alvarado (Spelman College), Tyler Jennings (Spelman College), Donovan Polk (Morehouse College), Elaine Ransom (Spelman College), Julian Rucker (Morehouse College), Kha'Zhir Stevenson (Spelman College), Ridge White (Morehouse College)

Workshop facilitators will lead participants in an instrument-making activity with materials provided by Morehouse and Spelman Colleges. The

activity is linked to instructional materials for making lamellophones, available on the SMT Committee on Race and Ethnicity's website (diversity.societymusictheory.org/SMT2019), with equipment commonly found on college and university campuses (e.g. laser cutters).

Part 2. Lightning Talks on Diversifying Music Theory Pedagogy (120 minutes)

Each talk will be followed by a 20-minute breakout discussion between the members of the audience. Pre-assigned scribes will note these discussions, and will share their highlights at the end of Part 2, to provide food for further discussion, or action items that might be implemented in music theory classrooms.

World Music as a Resource for Teaching Music Theory

John Roeder (University of British Columbia)

When learning outcomes are framed independently of a particular repertoire, music theory syllabi can comfortably accommodate musical diversity. Essays by Tenzer and Clendinning, responding to recent disciplinary deliberations, have suggested some ways to include "non-canonical" world music in the classroom, but more can be done. There are many good reasons to expose university students to diverse music, but it seems especially important for them to learn basic principles that many musics share.

In a first-year theory course I teach, we consider how pulse and meter, grouping structure and functions, pitch focus and hierarchy, and voice interactions in various textures can shape musical time. The syllabus provides a basis for analyzing "canonical" tonal and post-tonal repertoire covered in later courses, but it also supports close hearings of "non-canonical" music. Indeed, in the latter, fundamental rhythmic and melodic processes are often more salient than in art- or popular-music textures governed by harmonic and contrapuntal constraints.

In this talk I discuss how three examples of world music contribute to this pedagogical program: a layered Balinese gamelan cycle, a zither-flute duet from the Chinese silk-and-bamboo repertoire, and a melody played by a Bolivian panpipe orchestra. Although they originate in cultural contexts unfamiliar to most students, they are readily accessible. And they all employ the basic processes I cover in the course, often through strikingly similar procedures, such as interlocking patterns, melodic elaboration, motivic transformation, and collectional completion. Appreciating these

shared procedures will help students understand the music(s) they eventually choose to concentrate on.

Including Music by Diverse Composers: Redefining Modes of Analysis

Nancy Yunhwa Rao (Rutgers University)

There are many compelling reasons to be inclusive and to diversify the composers we study in classrooms. Significant efforts have been made in recent years by scholars to broaden the repertoire that we consider either as textbook music examples or as pieces for close analysis in scholarly works. The broadening of the "canon" has been such a collective effort that we have begun to see the effects in textbooks, dissertation topics, conference papers and scholarly journals. As we continue the endeavor to diversify the composers we study by gender, sexuality, genre, nationality, culture, race, etc., this paper suggests that we can also consider this as an opportunity to achieve profound results from another angle. Theory and analysis as a field of study could be broadened by cultivating analytical approaches that are germane to the aesthetic and musical practices of works by diverse composers. This paper considers two such examples: how the notion of timbre and the notion of temporality could be complicated by analyzing music by Ruth Crawford and Tan Dun. It will be argued that incorporating works by diverse composers not only broadens the scope or diversifies the repertoire we study, it also opens up new theoretical inquiries and identifies and defines musical parameters in a fresh light—perspectives that are just as important but have heretofore received little attention in the general field of music theory. In other words, it helps us diversify and redefine what can be considered as valid and valuable modes of analysis.

Working with Diverse Student Populations in the Classroom Robin Attas (Queen's University)

Music theory instructors may feel compelled to consider diversity in the classroom for personal reasons or because of departmental or institutional initiatives. They may also be motivated by broader educational trends both inside and outside music theory. For instance, the field of music theory continues to engage in discussions about curricular reform. Further, as public funding for elementary and high school music education is an ongoing struggle, incoming music majors may not have the skills once assumed to be basic. Finally, many universities in North America and Europe are recruiting increasing numbers of international students

and improving access to education for equity-seeking groups. All of these trends may change the typical student abilities and worldviews that instructors encounter in their classrooms, necessitating an increased attention to diversity in music theory pedagogy.

This paper will define diversity broadly in order to propose a range of practical and concrete actions. A discussion of general principles of inclusivity, equity, diversity, and universal design for learning will lead to applications in a range of teaching situations where an attention to diversity can impact classroom teaching, including classroom dynamics, instructional strategies, course content, assessment, and course design. The paper will conclude with a list of practical strategies for instructors in diverse institutional contexts and career stages. Ultimately, this paper advocates for an increased sense of humanity in the classroom; that is, for instructors and students alike to see and celebrate the diversity of human beings learning alongside one another.

Part 3. Performance Activity (30 minutes)

Quintina Carter-Ényì (University of Georgia), Moderator Marvin Wayne Allen (Morehouse College), Ariel Alvarado (Spelman College), Tyler Jennings (Spelman College), Donovan Polk (Morehouse College), Elaine Ransom (Spelman College), Julian Rucker (Morehouse College), Kha'Zhir Stevenson (Spelman College), Ridge White (Morehouse College)

In this last activity, the lamellophones made in Part 1 will be returned to the audience after having been tuned. Once the instruments are returned, workshop facilitators will guide groups of participants through performance activities responding to the three topics of the lightning talks.

- Learning a transcription of a cyclical process from Balinese Gamelan music
- (2) Studying and practicing a new composition by Emily Koh (University of Georgia)
- (3) Aural training exercises using lamellophones

These performance activities will demonstrate multi-sensory learning strategies for the classroom, and tools that may be used to implement the action items discussed in Part 2 without significant cost to a department or school of music.

LISTENING, SEEING, AND MOVING: SHIFTING ANALYTICAL PERSPECTIVES ON MUSIC AND DANCE (HARRISON)

Jocelyn Neal (University of North Carolina at Chapel Hill), Chair

"A-Five, Six, Seven, Eight!": Musical Counting and Dance Hemiolas in Musical Theatre Tap Dance Breaks

Rachel Short (Shenandoah Conservatory)

"A-five, six, seven, eight!" Those four numbers in the opening of A Chorus Line (1976) often announce the beginning of musical theatre dance routines. Choreographic phrases often follow an 8-beat paradigm to match the larger musical hypermeter. However, more complex rhythmic structures are commonly found in Broadway choreography, where steps and groups of steps do not closely align with musical phrases. These "Dance Hemiolas," as I term them, usually occur near places of formal delineation in the music. Tap dancing intensifies this potential metric "dissonance" (following Krebs, 1999) as sounds created by the dancers' shoes create another rhythmic instrumental layer. Changes in the relationships between the metrical layers can create heightened energy. This paper explores examples from two Broadway-style tap dance breaks to show how Dance Hemiolas combine with musical rhythms to generate momentum and delineate formal structures.

In the 1992 musical Crazy For You with music by George Gershwin, Susan Stroman's choreography uses traditional tap dance steps in classic and new ways, featuring many Dance Hemiolas at structural positions. In the finale to Billy Elliot Live (2005/2014), the rousing conclusion of the dance break is created by accumulating dancers, repetition of groups of simple steps, and Dance Hemiolas. These examples show how dancers' on-stage movements and rhythmic tap sounds combine with musical rhythms and phrases to create energy and strengthen structural climaxes. By showing analytical insights gained from a closer look at choreo-musical rhythmic movements, this paper offers an innovative investigative tool for scholars who seek multivalent understanding.

Choreographic Revelations: "Dance Music," According to Two Historical Dance Theorists Matthew Bell (Tallahassee, FL)

When it plays a role in musical analysis at all, dance often serves as an imaginary enhancement of a primarily musical experience. For instance, topical analysis interprets "dance" topoi as sonic cues that invoke the memory or specter of courtly dance to expressively animate instrumental or vocal music. Even some choreo-musical analyses tend to portray dance as a commentary or "visualization" of the score—an auxiliary to the music itself. But what would musicians and audiences learn if we were to turn this perspective on its head?

In this talk, I consult the treatises of two influential dance theorists—Carlo Blasis (1797–1878) and Fyodor Lopukhov (1886–1973)—to reposition the analysis of dance and its musical accompaniment through a primarily choreographic lens. While roughly a century separates the two authors, both discuss "classical" ballet technique and choreography in terms that may seem at once familiar and unsettling to musicians. Through examples of standard ballet class exercises and excerpts from *Giselle*, *La Bayadère*, and *Sleeping Beauty*, I highlight instances in which Blasis and Lopukhov have appropriated musical concepts and nomenclature (e.g. "adagio," "petit allegro," and even "sonata form") to delineate strictly choreographic elements and processes. As a foil to established analytical methods, where music recalls or contains imagined dances, these two dance theorists offer an appealing counterpoint: that choreographed dance contains—and dictates—imagined "music."

Finding the Salsa Beat from the Positional Perspective of the Dancing Salsero/a

Rebecca Simpson-Litke (University of Manitoba)

In their 2007 study, Phillips-Silver/Trainor demonstrated how physical movement has the power to shape aural perception of meter, showing that it was not enough to observe physical movement; in order for participants to hear an aural stimulus in the meter of a given movement pattern, they had to embody it themselves. Following other recent attempts to broaden how music theorists approach analysis, this paper investigates ways in which a dancer's unique listening perspective provides insights into the musical structure of salsa songs—insights that would not be made without such an embodied experience. To illustrate this approach, I will examine the song "Yaye Boy" in some detail. The initial lack of percussion

in Cuban group Orquesta Aragón's arrangement highlights the metric ambiguity of the opening melodic line, making the interpretive job of the dancer particularly difficult as none of the musical accents align with the entry points of the possible basic footwork patterns. While NY/Senegalese group Africando's arrangement clarifies the location of the downbeat, supporting the ambiguous melodic line with the interlocking percussion patterns typical of salsa, this arrangement soon highlights a larger-scale hypermetric irregularity in the song's phrase lengths. Because the footwork pattern is a hypermetric cycle spanning two measures of music, dancers are acutely aware of and affected by disruptions in phrase structure. Through their physical interactions with such frequently occurring moments of disorientation in salsa, dancers may either increase the tension of or help to reconcile metric conflicts, adding exciting interpretive layers to the art form.

IMPROVISING/COMPOSING WITH THOROUGHBASS AND PARTIMENTI (MCKINLEY)

Joel Lester (The Graduate Center, CUNY), Chair

Four Steps Toward Parnassus: Johann David Heinichen's Method of Keyboard Improvisation as a Model of Baroque Compositional Pedagogy

Derek Remeš (Hochschule Lucerne - Music (Switzerland)

Johann David Heinichen's treatise, Der General-Bass in der Composition (Dresden, 1728), is the most comprehensive study of thoroughbass ever written, yet it has been continually overshadowed in historical accounts by two works published in the same decade: Rameau's Traité de l'Harmonie (1722) and Fux's Gradus ad Parnassum (1725). Despite receiving some attention by Buelow (1966) and Holtmeier (2007), it seems Der General-Bass has yet to receive wider acclaim because it lacks a reductive pedagogical framework that can rival Rameau's basse fondamentale or Fux's species in simplicity and immediate appeal. Fortunately, the "partimento renaissance" of the last decade has brought renewed attention to the centrality of thoroughbass in 18th-century music-making. Thus, the time is ripe for a reappraisal of Heinichen's monumental work. At least once, Heinichen does in fact outline a pedagogical method of eminent simplicity on par with Rameau's and Fux's theories: his four-step instruction in how to improvise a prelude at the keyboard. These four steps toward Parnassus build in complexity by permuting two factors: (1) conjunct vs. disjunct

Friday

basslines with (2) consonant vs. dissonant harmonies. According to Heinichen, this method, which seems to be completely unknown today, is to be understood not only as instruction in improvising, but also as training for beginning composers. Therefore, in explicating the pedagogy of one of 18th-century Europe's leading composer-theorists, this paper makes a contribution to both the historically-informed analysis and the practical instruction of baroque music today.

Beethoven Contra Partimento: Creativity, Aesthetics, and the *schöne Künste* in a Realization of BWV 908

Vasili Byros (Northwestern University)

The international "new theory" (Sanguinetti 2014) formed of schemata and partimenti has painted a powerful picture of musical creativity in the long 18th century, one centered on the close imitation of models. The Neapolitan conservatories and Italian diaspora have placed partimento schooling especially center stage. The coherence of this picture, however, owes to generalizations about the whole (creativity) from a particular (craft-training). My paper problematizes 18th-century musical creativity by positioning Beethoven, as composer and metaphor for a German tradition, in counterpoint with the world of partimento in two interrelated ways: one aesthetic-philosophical, the other practical.

The creative mechanism advanced by the "new theory" is foreign to the musical aesthetics and values into which Beethoven was born: the creative process has been described in terms of "automatic composition" (Sanguinetti 2012), "transcription" (Gjerdingen 2007), and "memes going viral" (Gjerdingen and Bourne 2015). Meanwhile, Beethoven's earliest training with Christian Gottlob Neefe in Bonn is reflected in Johann Georg Sulzer's *Allgemeine Theorie* (1771–74). Its creative and aesthetic categories, which include "originality," "invention," and "variety" in "unity," are values that Neefe (1783, 1785) "put in [Beethoven's] hands" at a young age, along with *The Well-Tempered Clavier*.

Drawing on the "historical imagination" (Treitler 1989), I creatively imagine how Beethoven might have implemented Sulzer's aesthetic categories in a realization of Bach's partimento-fantasia from BWV 908, and how this differs from modern partimento-trained solutions and the first published realization by Carl Czerny (1839). Differences among these realizations throw dichotomies within 18th-century musical thought into sharp relief.

Teaching by Example: "Practical" Pedagogies of the Postclassical Thoroughbass

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 post-classical 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 18th-century partimento tradition. Unlike their 18th-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.

COMPOSING IN PARIS (TAFT A)

Marianne Wheeldon (The University of Texas at Austin), Chair

Hearing the Inaudible in Dutilleux's Métaboles

James N. Bennett (Waterloo, IA)

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,

Friday

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 12-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 shock waves throughout the piece, forcing a retrospective reconsideration of everything that came before. I first interpret the opening movement in terms of collections, inversional relations, voice leading patterns, etc., and 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.

Competing Musical Processes in Parisian Modernist Sonata Forms

Damian Blättler (Rice University)

The first movements of Milhaud's Sonata for Flute, Oboe, Clarinet and Piano, Ravel's Sonata for Violin and Piano, and Martinů's Sextet for Winds and Piano are in sonata form with truncated recapitulation, that is, they begin with normative sonata expositions but their recapitulations do not produce the secondary theme. This violates the most basic norm of sonata form, but whereas this would register as a catastrophic deformation in a 19th-century work, these three Parisian-modernist pieces are not cataclysmic in affect and all blithely end in the major mode.

This paper demonstrates that these pieces feature goal-directed processes, running in parallel to sonata-form logic, which complete with the reprise of the first theme; the resultant sense of resolution allows the remaining sonata-form exigencies to be discarded. In the Ravel, the process is a macroharmonic one, wherein the first theme returns without the octatonicism that suffused the exposition. In the Milhaud, the primary theme is reprised without the bitonal clash that marked its initial appearance. In the Martinů, the process is an accumulative one, wherein signifiers of a jazz style are slowly introduced until they accrete into a concentrated evocation of jazz. This novel approach to sonata form spotlights the Parisian-modernist interest in "neoclassical" formal traditions and the ironic distance with which those traditions could be treated; it also forms an

intriguing parallel with modernist notions of counterpoint between the arts in multimedia works, and enriches both theories of form and conceptions of the musical work as the intersection of independent compositional parameters.

Falling into Ruin: Neoclassical Sonata Form September Russell (University of Regina)

In France, after the First World War, sonata-form structures of the 18th century were revived and reimagined within the context of neoclassicism. A new neoclassical sonata form was born: a structure designed to crumble and fail. This paper explores French sonata-form movements of the 1920s as structures of ruin—movements that not only pay homage to the sonata forms of the past, but also bear the scars left by the passage of time.

To demonstrate neoclassical French sonata form, I examine the large-scale form of the first movement of three representative neoclassical works: Milhaud's Sonatine for Flute (1922), Poulenc's Trio for Oboe, Bassoon and Piano (1926), and Ravel's Sonata for Violin No. 2 (1923–27). My approach is based on Caplin's form-functional theory (1998) but, because of the post-tonal nature of the pieces, I apply form-functional principles to melody in order to determine beginning, middle, and ending functions.

My analyses reveal that neoclassical sonata form is deformational (Hepokoski and Darcy 2006). "Failures" of formal structure are actually moments of expressive power. In these works, the clarity of formal functions, the boundaries of thematic areas, and the order of the thematic material disintegrates once a sonata-form structure has been suggested. By the onset of the recapitulation, each movement has already fallen into ruin: formal units are missing; themes are compressed; and new material outside of the sonata form appears. Ultimately, the beauty of neoclassical sonata form lies in its crumbling structure: a structure that simultaneously acknowledges the past and the present.

FRIDAY AFTERNOON SESSIONS—4:00-5:30

HISTORY OF THEORY AND THE PRE-HISTORY OF MUSIC (HARRISON)

David Cohen (Max Planck Institute for Empirical Aesthetics), 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 16th-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 12-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 as not only 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 co-opt 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.

Francescantonio Calegari and the Scuola dei rivolti: A Bridge between the Prima and Seconda pratica?

Bella Brover-Lubovsky (Jerusalem Academy of Music and Dance)

The treatment of dissonance—the cornerstone of the distinction between the prima and seconda pratica—by common consent is considered to be regulated by the purely musical context in the former versus the priority given to expressive-rhetorical considerations in the latter style. The theories and compositions by Francescantonio Calegari (1656–1742) challenge this common belief: his treatise *Ampla dimostrazione degli armoniali musicali tuoni* (1732) and his arrangements of the music of Cinquecento masters shed light on his genuine views of the treatment of dissonance with its inversions (known as the scuola dei rivolti).

The Berlin Sing Akademie Archive contains the most representative collection of Calegari's autograph arrangements of works by Palestrina, Asola, and other authors; it displays his keen interest in analyzing vertical sonorities and their succession in various modal contexts, with an emphasis on the correlation between the dissonances and emotionally laden words in the text.

The most obvious element Calegari drew from the study of Palestrina's works was combining dissonances with their consonant resolutions, thus creating very particular sonorities. He stated: "Whoever wants to write in the modern harmonic style must understand the old style. The theories expressed here are founded in the practice of Palestrina. Through these, one can now utilize the principles of the old school with the new modern taste."

Exploring Calegari's theoretical premises vis-à-vis his analyses of old polyphonic works and his own surviving compositions calls into question our confidence in the unambiguous distinction between the place of dissonance in Prima versus Seconda pratica traditions.

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 tracks 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.

Friday

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 vocal 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 Genette's term for ideas about language that invoke a mimetic origin or function; I introduce Genette's ideas for a music theory 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.

CROSS-MODAL PERCEPTION IN MULTIMEDIA AND VIRTUAL REALITY (MCKINLEY)

David Bashwiner (University of New Mexico), Chair

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

Sarah Louden (New York University Steinhardt)

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 become an important topic in cognitive neuro-science and psychology because of the significant influence they have on perception and the broad implications for this research outside of those fields. In music, these associations offer 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 researchers familiar with this work to navigate and apply modal associations in a broader way to analysis.

This paper synthesizes relevant research from the cognitive literature and presents a tool for modeling multiple crossmodal and intramodal relationships within a single metric space. I begin by presenting an interactive online resource created for analysts to reference modal associations by parameter and find other known relationships. 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 an analytical 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 to analysis, composition, and performance.

These affordances suggest further connections with phenomenological and cognitive theories of multistability (Idhe 2012, Karpinski 2012). By examining relationships between melodies in terms of these multistable possibilities, I offer a more sensitive account of the contour relations listeners may perceive within the music, providing a better understanding of Reich's minimalist process.

The Analytical Lightshow: Concert Lighting as Analysis in Extreme Metal Live Performance

Olivia Lucas (Louisiana State University)

Lightshows at contemporary rock concerts generally create an immersive, multi-sensory experience. Their most sophisticated variants, however, provide a visual analysis of the music as it unfolds. This paper presents a case study of the analytical lightshow, by examining how the intricate lightshows of extreme metal band Meshuggah contribute an interpretive layer that not only promotes multi-sensory engagement, but also actively guides listeners through songs' formal structures.

Theorists (Pieslak 2007; Capuzzo 2018; Lucas 2018) have analyzed Meshuggah's idiosyncratic approach to rhythmic complexity. By reading Meshuggah's lightshows as immanent visual analysis, this paper bears out Lochhead's exploration of "sonic meaning as informed by sight" (2006, 67), and shows how lighting design can mediate between musical complexity and listeners' engagement.

Meshuggah's lightshows are exhaustively synchronized to the rhythmic patterns of the guitars and drums; meticulous use of color, brightness, directionality, placement pattern, and beam movement provide additional information about gesture, articulation, and pitch. My analyses, supported

Friday

by lighting designer Edvard Hansson's digital models of the lightshow and by video playback, align salient features of the lightshows with transcriptions, showing both how closely their rhythmic contents align, and how riff attributes are enhanced by lighting.

Meshuggah's analytical lightshows provide a three-dimensional visual score that dramatizes rhythms while guiding listeners through each riff. By presenting analysis and performance simultaneously and as each other, Meshuggah combines technical virtuosity with rock authenticity, and provides another example of what Lucas (2014) calls "coercive synesthesia," as the lighting becomes an inextricable part of the musical experience.

Like "Daft Punk on bloody C R A C K": Constructing the Identity of the Virtual Reality DJ Alexander Balasko (The University of Texas at Austin)

In many virtual reality (VR) experiences, the identity inhabited by the user is at least as if not more important than the gameplay itself. For example, the VR game *Electronauts* (Survios 2018) invites its user to take on the persona of a futuristic space-DJ. However, a cursory foray into the game quickly reveals its myriad constraints, which exercise a significant influence over what music a user can create. And yet player reviews seem to suggest a lack of awareness regarding these limits. Indeed, users take full ownership over the music created using *Electronauts*, claiming the game makes them feel like "a real DJ." *Electronauts* facilitates this identification with the DJ persona by building DJ aesthetic practices (largely theorized by Mark Butler (2014) and Yara Sellin (2005)) into the interface itself.

I argue that VR technology opens up new avenues of user engagement by providing a hyper-immersive experience of identification, moving beyond virtual performance to the construction of a virtual creative identity. Rather than the music working to support a visual medium, as is common in film or video games, *Electronauts* exhibits how music can in a sense be the medium, facilitating the embodied experience of identification. By providing the experience of truly "feeling like a DJ," *Electronauts* invites its users to take ownership of the music created within the game—as one user states: "if you like music, and REALLY wanna feel like a DJ or Daft Punk on bloody C R A C K download this."

FORMS, FRAGMENTS, AND DEFORMATION (TAFT A)

Andrew Davis (University of Houston), 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 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 (1819–96) 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" (see Latham 2008).

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.

Fragments and Frames in the Early Romantic Era

Catrina Kim (Oberlin Conservatory 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). 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

Friday

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 19th-century form (Daverio 1993; Schmalfeldt 2011; and Vande Moortele 2017). Analytical comparison of these opening procedures shows the relevance of the Romantic *tendenz* toward fragment in these increasingly independent introductions.

Tracing the Second Theme Narrative in Fanny Hensel's Piano Trio in D Minor

Kenton Osborne (University of Oregon)

The 19th century was a time for formal innovation. As recent scholarship contends, what once would have been deformational quickly became normative, pushing composers to experiment further. Though the bulk of Hensel's compositions are songs and short piano pieces, her few larger works demonstrate progressive techniques that align with current explorations of Romantic-era form studies. In this presentation, I look at how the open-ended secondary theme in the first movement of Hensel's Piano Trio affects significant structural moments and how this impacts the traditional sonata narrative. In effect, I show how this theme, along with its cyclic return in the finale, culminates to provide both thematic and structural closure in the Piano Trio's deployment of sonata form.

The first movement departs from the second theme, unresolved by moving immediately to contrasting material in the parallel minor, leaving the EEC and ESC to be achieved by a third theme. The finale's secondary theme likewise struggles to find resolution, recalling the primary theme to achieve the EEC. We hear familiar material prior to the recapitulation's structural close: the unresolved secondary theme from the first movement. The restatement of this material at the conclusion of the fourth movement highlights a cyclic return, and establishes a contrasting narrative to Hensel's other sonata movements.

Further analysis on Hensel's works may explore other hallmarks of early 19th-century formal construction, providing both a path for future examination of idiosyncratic formal constructs and an expansion of current discussion of Fanny Hensel's catalogue.

FRIDAY EVENING SESSIONS—8:00–9:00/9:30

EXPANSIVE FORMS IN POP AND PROGRESSIVE ROCK (HARRISON)

John Covach (Eastman School of Music), Chair

Anti-Telos Choruses in Recent Pop

Drew Nobile (University of Oregon)

Reports of the chorus's death have been increasing in pop-critical circles. Indeed, after decades of "don't bore us, get to the chorus," many recent pop songs place their focus away from their choruses, subverting normative formal models and opening up space for teleological climax to occur elsewhere. One particular subversive technique pervades post-2010 pop music: after a textural buildup in a verse and prechorus, the chorus begins with a sudden and extreme drop in energy, negating any release of tension and making the chorus the song's point of lowest energy. In this paper, I investigate the hermeneutics of these "anti-telos choruses," drawing analytical examples from Top-40 hits of the current decade.

Anti-telos choruses in general serve two expressive purposes. First, they engender a sense of intimacy between song persona and listener. Drawing on Allan Moore's concept of proxemics (2012) and Asaf Peres's "sonic functions" (2016), I demonstrate that anti-telos choruses employ sonic techniques associated with closeness, such as removing reverb from the vocal line, omitting any accompaniment in the voice's pitch range, and using a soft and quiet singing style. Second, anti-telos choruses open up space for other sections to act as a song's energetic peak, thus threatening the chorus's status as a climactic focal point. My discussion ultimately demonstrates how form is not just a basic template for song design but an inherently expressive feature of pop songs.

"...a jolly good time": Understanding Groove in Progressive Rock Ivan Tan (Brown University)

Progressive rock is characterized by scholars and music critics as a genre that emphasizes the mind over the body, such that it is "not about music for dancing" (Macan 1997), but rather designed for careful listening. When groove-based sections do occur, they often feature complex rhythms or meters that "[lessen] the music's bodily appeal, calling for thought about rhythm rather than immediate participation in it" (Stone 2016). Other scholars, however, have argued that prog fans do engage with this music bodily, suggesting that the phenomenon of groove in prog deserves further exploration.

While previous scholarship on metrically complex grooves has discussed their structural features or their signification of artistic seriousness, I focus on how musical elements model the process by which listeners might learn how to entrain to these grooves. Prog songs frequently feature teleological processes in which "difficult" grooves are repeated until they become contextually stable in a sequence that may span multiple formal units. Similarly, textural modifications likewise counterbalance rhythmic and metric complexity, creating a narrative arc that rewards the learning of complex temporal patterns. Through several analytical vignettes, I demonstrate how the "groove-learning process" enacted in these songs interacts with text and formal structure. Thus, these grooves provide insight into how "music for listening" may be rendered danceable.

Extended Final Phrases in Popular Songs

Nicole Biamonte & Edward Klorman (McGill University)

As analysts and listeners, we place special importance on closure at the ends of tonal works. There are many theoretical and analytical considerations of this issue in art music, but few in popular music, and most of those focus on harmonic structures. The roles of phrase rhythm and hypermeter in creating closure in popular songs has been little explored. This paper examines a closing technique discussed by Kirnberger and other 18th-century theorists that persists in 20th-century popular songs, whereby the last statement of a regular four-bar phrase is extended by one or more bars. In modern terms, this extension often shifts the final bar of the phrase from a hypermetrically weak position to a strong one, increasing the sense of closure. This technique helps to differentiate the final section (which is often a chorus) from its earlier iterations, and resembles the end-accented "closing-theme schema" discussed by Temperley and

Ng. Final phrases can be extended and end-weighted through three basic techniques, which may be used alone or in combination: composed-out decelerations, extensions of the cadential progression, and internal repetitions. The high degree of repetition, short length of repeated units, and prevalence of open-ended formal sections in popular songs render the issue of closure more problematic than in art music. This paper demonstrates that 20th-century popular songwriters sometimes adopted a much older strategy for achieving conclusive endings, and suggests that phrase structure and hypermeter in popular songs are less regular than has been generally assumed.

RECONTEXTUALIZING METER (MCKINLEY)

Roger Matthew Grant (Wesleyan University), Chair

Damaged Cargo: Concerning the Unfortunate Voyage of Classical Poetic Theory to the Land of the Modern Music-Theory Textbook Richard Cohn (Yale University)

Music theory textbooks share a consensus definition of meter, which is directly appropriated from the late 18th century. I identify several problems with the definition, from the standpoint of modern metric research. I propose that the problems result from a three-stage process of transmission, whose origin is the ancient Greek theory of poetic verse feet, and whose intermediate stages are 18th-century theory of poetic prosody, and 18th-century theory of (mostly) vocal music. At each stage, the source has considerable prestige within the culture of the target domain. This encourages an uncritical adoption ("shoehorning") of features that fit poorly with the repertories being modelled. I propose a repertory-general definition of musical meter, based on modern research, that avoids all of the identified problems, but requires some minor terminological retooling.

On Metrical Structure and Cueing Systems in Monroe's "Muleskinner Blues"

Nathaniel Mitchell (Princeton University)

Bill Monroe's "Muleskinner Blues" is a signature item in the bluegrass canon. Indeed, Monroe himself claims to have discovered the essence of bluegrass rhythm in this old Jimmie Rodgers tune. And yet, the song stands in sharp contrast to the metrical and hypermetrical norms that shaped bluegrass music as it developed in the 1950s and '60s, eschewing regular four-bar hypermeter in favor of a highly irregular phrase structure

with seemingly indeterminate downbeats. This paper offers an analysis of Monroe's "Muleskinner Blues" conducted with an eye toward its fluid approach to meter. I show how the song's metrical structure, embodied in the group actions of the Blue Grass Boys, responds flexibly to Bill Monroe's extended vocal expressions. In so doing, my analysis highlights the musical events that forecast impending harmonic changes, providing key insight into the "cueing systems" (Gupta 2017) that hold together such improvisatory musical spaces. The paper thus supplements existing studies on style-wide systems of licks and progression schemes (Adler 1974; Stoia 2013) required for successful bluegrass picking, arguing that a Blue Grass Boy would additionally require song-specific schemas to facilitate quick musical responses in a constrained yet flexible musical environment.

Many Malinke Meters: Analytical Applications of Meter Theory to Dance Drumming of Guinea

Tiffany Nicely (University at Buffalo (SUNY)

According to Justin London's *many meters hypothesis*, meters are "highly context-specific patterns of temporal expectation that govern our attention to, as well as performance of, rhythmic sequences" (London 2012, 8), where each meter is "a coordinated set of periodic temporal cycles of sensorimotor attention" (91). By aligning London's concept of temporal cycles with Gerhard Kubik's four African "basic, cross-culturally valid reference levels with regard to timing: ... elementary pulsation[s], ... reference beat[s], ... cycle[s]" (Kubik 2010, 31), and "time-line patterns" (57), this paper seeks to establish an analytical procedure to quantify the many meters used in Guinean Malinke dance drumming.

Guinean Malinke dance drumming is performed by an eight-to-ten-part polyrhythmic percussion ensemble. The music is constructed of cycles of multiple repeating patterns of varying lengths. While many accompaniments are multi-use, each piece utilizes an identity pattern in the form of an eight- to sixteen-beat melo-rhythmic conversation between two of the drums. This paper analyzes a corpus of 76 pieces as taught and published by former national ballet drummers to establish the many meters at work in Malinke dance drumming. I then demonstrate the ways in which the identity pattern and accompaniments of each piece may be expressed as contours of varying strength and weakness relative to its multiple specific, both isochronous and non-isochronous (timeline), metric layers. A quantification of these overlapping shapes allows a view of the depth and complexity of this music.

An Investigation of Metrical Dissonance in Tap Dance Improvisation

Stefanie Bilidas (The University of Texas at Austin)

A "cutting contest" is a public challenge between two skilled tap dancers, who alternate increasingly elaborate rhythmic sequences, beginning with eight bars per sequence, ultimately reducing to a single bar. Dancers must enter on time (pick-ups and syncopated entrances are permitted), lest they forfeit the contest. At the start of the contest, the tap dancers and judges negotiate the meter and tempo of the contest. The judge gives a count-off bar and the first dancer begins as the only "musical source." The original meter is maintained by the judge through the tapping of his/her feet, although rendered inaudible by the audience's verbal reactions to the dancer's steps. The opponent keeps his eyes locked on the soloist as he silently counts. Since tap dancers create the audible rhythmic patterns, while the meter is "unheard," dancers use metric dissonance (Krebs 1999; Love 2013) in hopes of metrically misleading one's opponent.

In this paper, I aim to demonstrate that tap dancers use metrical dissonance as means of confusing their opponents. I will examine solos by Joshua Johnson, Jumaane Taylor, and Sarah Reich. Since the primary goal of the opponent is to be able to identify the meter at all times, tap soloists strategize their own unpitched tap shoes to accent metrical dissonances that cloud the original meter.

TOPIC AND PROTOTYPE IN HAYDN AND MOZART (TAFT A)

Danuta Mirka (Northwestern University), Chair

Middleground Prototypes for Mozart's First-Movement Concerto Forms

Eron Smith (Eastman School of Music)

Tonal theorists have neglected the concerto compared to most other formal genres. In this paper, I present exposition prototypes for Mozart's major-mode concerto forms, analyzing the opening movements of K. 488 and K. 447 as examples. In doing so, I also suggest a solution to potential Kopfton contradictions arising from the "double-expositional" structure typical of concerto first movements.

I propose a set of eight middleground exposition prototypes for Hepokoski and Darcy's (2006) Type 5 sonata. These prototypes account for each combination of third- and fifth-progressions for P and one or two S themes. Since the opening ritornello (doubling as a first "exposition") typically does not modulate, and since the recapitulation synthesizes material in the two expositions, Type 5 sonatas are replete with sites of potential conflict between third- and fifth-progressions. Some permutations do not cause any inherent problems, as demonstrated in an analysis of K. 488.

However, the challenge of Kopfton contradiction arises in the combination of descending from $\hat{3}$ in P and from $\hat{5}$ in S. Rather than dismissing this possibility, I suggest a middleground "hybrid descent" $(\hat{5}-\hat{4}-\hat{3}-\hat{3}-\hat{2}-\hat{1})$ that can be interpreted from either Kopfton according to context, using K. 447 as an example. The hybrid allows for a nuanced interpretation of concerto movements with dialogue between $\hat{3}$ and $\hat{5}$, providing a solution to one of many analytical challenges posed by the classical concerto and spearheading a new branch of scholarship on tonal analysis of concerto forms.

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.

CORRALLING THE CHORALE: MOVING AWAY FROM SATB WRITING IN THE UNDERGRADUATE MUSIC THEORY CURRICULUM (TAFT C)

Presentations, Lightning Talks, and Panel Discussion William van Geest (University of Michigan), Chair Jennifer Snodgrass (Appalachian State University), Respondent

Four-part chorale-style writing is so central to music theory pedagogy that it is difficult to imagine a curriculum without it. Yet, as much as we rely on chorales to teach general principles of music, they are specific in structure and their origins lie in a specifically German theological tradition. This raises a number of questions: are chorales effective for the purposes to which we put them? What pedagogical possibilities do they obscure? What can our reliance on this genre tell us about North American music theory and the commitments or anxieties it carries? Overall: are we right to depend on SATB writing as we do? In this panel, we seek to engage with these questions by examining the role of the chorale in the undergraduate theory curriculum and proposing pedagogical approaches that delay, reconfigure, or replace it.

This panel consists of six papers. The first, a 20-minute paper, will examine the chorale in contemporary music theory textbooks as a means of establishing a baseline for current pedagogical practices. Following this paper, five lightning talks will address curricular implications and pressures as well as proposals to shift the chorale's traditional applications. Panelists draw largely on first-hand experience from various institutional settings, including a liberal-arts college, a state school, a research university, a conservatory, and a school of music. Finally, Professor Jennifer Snodgrass will offer a response, after which those in attendance are invited to contribute to the discussion.

The Chorale in American Music Theory: A Corpus Study of Leading Textbooks

William van Geest (University of Michigan)

While music theorists widely acknowledge the chorale's privileged position in American music theory, very little scholarship critically examines this position. In this paper, I address this omission by presenting a corpus study of leading undergraduate textbooks. I aim through this study not only to establish the prevalence of chorales in undergraduate music theory instruction, but, more importantly, to reveal some particularities of their usage and the commitments this usage encodes.

I begin by investigating chorales' prevalence. I examine their incidence among musical examples, authors' purposes in using them, and their distribution relative to particular topics. I also explore authors' handling of chorales. I demonstrate their preference for four-part, vocal, homophonic chorale-harmonizations by J. S. Bach; but I also discuss their presentation, both visually and aurally, as a texture rather than as a genre, and one abstracted from cultural context and instrumentation. Through an examination of authors' explicit definitions of the terms "chorale" and "chorale style," I show the chorale's close connection to a widely held model of musical structure. Indeed, to all appearances, the chorale in American music theorists' preferred form is virtually indistinguishable from this model of musical structure. Finally, I discuss authors' justifications for employing chorales and "chorale style": their various appeals—to biology, musical norms, and musical ontologies, among others—and attempts to normativize chorale-related practices.

Through this corpus study, I then show that the chorale lies deeply entrenched in American music theory and is closely connected to the field's basic practices and theoretical commitments.

Resolving Chords to Resolve Anxieties: Pressures around Teaching the Chorale

Chelsea Burns (The University of Texas at Austin)

Theory curricula are shaped not only by the perceived needs of our students, but also by pressures—both real and imagined—to produce students that exhibit competency in the rules of voice-leading, phrase structure, and other concepts that are traditionally taught in conservatories and schools of music. Central to these competencies is the mastery of chorale-

style writing and its attendant voice-leading rules. In this brief talk, I address the pressures, labor costs, and anxieties that constrain attempts to decentralize chorale-style writing in the undergraduate curriculum.

Internally, one must fit within a cohesive departmental curriculum. More broadly, textbook norms and common curricular practices across schools provide self-reinforcing standards for what music is and how musicians should understand it—a lingua franca of musicianship, one which currently includes skills in SATB part-writing. Moreover, any curricular changes de-emphasizing SATB materials also impose hidden labor costs on instructors. To move away from textbook norms, faculty must construct new materials and reconfigure existing ones, a significant task that reduces time for other activities that are necessary to one's job. Such changes also compel theory instructors to reconsider their skills as pedagogues: a shift away from chorales likely involves moving away from their own undergraduate training, and thus acquiring new skills.

As we consider decentralizing SATB activities, we must take into account that instructors deploying changes bear costs and face anxieties and pressures from ourselves, our departments, and our peer institutions.

Administering Pedagogy: Navigating the Institutional Impacts of a Changing Theory Curriculum

Peter Smucker (Stetson University)

Implementing a new music theory curriculum involves more than the details of course design. Curricular changes may impact multiple faculty members and areas of study across a department, conservatory, or school of music, whether the program is highly integrated or isolated. Proposing such changes must involve careful consideration of both the process and impact beyond the theory classroom. In this paper, I draw on my experience as a music theory instructor, course coordinator, and theory area administrator to highlight common challenges of implementing a new theory curriculum. Specifically, I use the decentralization of chorale-style components in a music theory curriculum as a case-study.

Drawing on interviews and surveys of administrators, students, and music theory instructors across multiple institutions, I employ two primary perspectives throughout the paper. The first is as a music theory instructor addressing administrators and colleagues regarding potential impacts on courses both inside and outside the theory curriculum, while the second is as an administrator addressing potential impacts on the department or

Friday

institution. Each perspective offers positive or negative valences on specific aspects and dimensions of the curriculum change. Throughout the paper I examine intersections of both perspectives as measured valuations on five aspects of a chorale-deemphasized curricular change: (1) textbook and course materials; (2) impacts on non-music-theory colleagues and their courses; (3) student reactions; (4) strategies for dealing with resistance to changes; and (5) outlooks on institutional recruitment, retention, and future placement of students.

Repurposing the Chorale in the Theory Classroom Katherine Pukinskis (Harvard University)

Theorists often endeavor to show the chorale's relevance to Western classical music, but typically stop short of demonstrating how four-part writing applies to students' other musical activities. Given the substantial costs associated with four-part writing, it can be a risky investment. Failure to connect the topic with non-classroom-based musical practice jeopardizes losing the return, leaving students disenchanted and discouraged. In this paper, I show how chorale-style writing and analysis can be reimagined in a liberal arts program in order to relate to a wider array of musical interests. My aim here is not to minimize or abandon the utility of the chorale, but rather to repurpose four-part writing for application in non-classical styles.

Through early exploration of rules and departures, I lay groundwork for the flexibility that may be asked of students in other theory classrooms, performing ensembles, composition, and other creative practice. By the time I introduce four-part writing, we have already seen that some of the most compelling parts of music come when rules are eschewed or worked around, which is particularly relevant to Bach chorales. We discuss how different rules apply in different contexts—for students looking to improve their performance in an ensemble, arranging for an a capella group, or music-directing a staged show, I find conversations such as these help them direct their theory work into musical practice. My experience has shown that chorale-later architectures invite students from diverse backgrounds to engage analytically without being hindered by the steep learning curve of chorale-based practices.

Teaching Undergraduate Voice-Leading with Neo-Riemannian Techniques

William O'Hara (Gettysburg College)

While the term "voice-leading" in undergraduate music theory courses often refers to chorale harmonization or species counterpoint, Neo-Riemannian theory offers another way of engaging deeply with the succession of harmonies and the movement of individual voices. This paper advocates for including Neo-Riemannian theory in core undergraduate theory courses, and outlines a modular sample curriculum. A unit on Neo-Riemannian theory can be invigorating for students, as it offers them new ways of thinking about chromatic music, and of re-interpreting other frequently taught topics such as modal mixture. And as a capstone to the "tonal" portion of the undergraduate curriculum, Neo-Riemannian theory can serve as a gentle introduction to many of the concepts introduced in the "20th-century" course that often ends the sequence. Simple and direct examples serve as a jumping-off point: students can sing or notate straightforward transformations. Later in the unit, consideration of the many geometric models of tonal space prepares students to deal with the abstractions and operations of pitch-class set theory, or to navigate the difficulties of dealing in abstractions away from the musical surface. Such examples also lend themselves to compelling visual analyses, which students can use as they listen to music, and which they often enjoy producing themselves. Finally, Neo-Riemannian theory offers the opportunity to incorporate new repertoires into the undergraduate core curriculum: not only the highly chromatic 19th-century music originally addressed by the theory, but also popular music, film music, jazz, and other styles.

Building an Undergraduate Curriculum without SATB Writing Marcelle Pierson (University of Pittsburgh)

This paper presents possibilities for those who wish to decentralize chorale writing in particular, and perhaps classical music in general, in their own curricula. I report from my own experiences of constructing and directing a four-semester curriculum that gives only glancing attention to chorale writing and its voice leading rules. Decentralizing chorales in the theory classroom is not without its challenges; these include a dearth of pedagogical support from textbooks and lack of a unified pedagogical framework. I show how I am able to respond to these challenges by developing an eclectic, modular curriculum that seeks to be responsive to the interests and needs of my students.

Saturday

In my curriculum, Theory I acts as a gateway course while the other three courses may be taken in any order and rotated out of the sequence according to instructor and student interest (the other three classes are currently rhythm, counterpoint, and contemporary styles). Rotating out classes allows the instructor to respond to the always-changing musical lives of students at a given institution and impart skills applicable across a wide variety of musical activities, from church arrangements to beat-making, popular songwriting, and/or classical music performance and composition. I argue that a non-sequential and eclectic approach can constitute a first step toward deconstructing the problematic yet pervasive teleology of style that informs mainstream music theory pedagogy at present. It is one way to keep apace of our rapidly shifting world, and to stay relevant to our students' increasingly diverse musical experiences

SATURDAY MORNING SESSIONS—9:00–12:15

EMPIRICAL APPROACHES TO BLACK-ATLANTIC GROOVE (TAFT C)

Sponsored by the 2019 Program Committee
Presentations and Discussion
Richard Cohn (Yale University), Chair
Mitchell Ohriner (University of Denver), Respondent

On the Fluidity of Afro-Cuban Meter

Fernando Benadon (American University)

Using data from ensemble drumming performances recorded by Andrew McGraw in Santiago de Cuba, I show how fluid metric complexes emerge from the superposition of distinct interweaving patterns. Factors shaping this fluidity include not only the characteristic non-simultaneities of African diasporic music but also the metric disposition (binary- or ternary-leaning) of the individual layers as well as their degree of adherence to strict cyclical repetition. In addition to these temporal dimensions, we will consider the amplitude contours of the cycled patterns, thereby expanding our view of meter as something richer and more nuanced than a discrete stacking of on-and-off dots. We will examine performances that differ in instrumentation, number of players, and core timeline in order to highlight commonalities while keeping check on the risks of overgeneraliza-

tion. The presentation will also touch on pragmatic questions of methodology concerning data representation and manipulation in the study of rhythm.

Glitched and Warped: Shaping the "Beat Bin" in Contemporary African-American Popular Music

Anne Danielsen (University of Oslo)

Rhythm and groove are at the heart of many African-American musical traditions. In this paper, I present examples of contemporary African-American popular music that have been produced through unorthodox application of the digital audio workstation, focusing on the ways in which creative use of technology has changed how music sounds. As part of this, I discuss how sound processing is used to manipulate the "width" of beats and change the perceived timing of rhythmic events.

Groove on the Brain: Predictive Brain Processes Underlying the Experience of Musical Rhythm

Peter Vuust (Danish Royal Academy of Music and Aarhus University)

Musical rhythm has a remarkable capacity to move our minds and bodies. I describe how the theory of predictive coding (PC) can be used as a framework for understanding how rhythm and rhythmic complexity are processed in the brain. This theory posits a hierarchical organization of brain responses reflecting fundamental, survival-related mechanisms associated with predicting future events. Musical rhythm exploits the brain's general principles of prediction and that the pleasure and desire for sensorimotor synchronization from musical rhythm could be a result of such mechanisms.

Exemplified by the music of Miles Davis, I here review empirical studies of the neural and behavioral effects of syncopation, polyrhythm and groove, and propose how these studies can be seen as special cases of the PC theory.

SATURDAY MORNING SESSIONS—9:00-10:30

STYLE AND COPYRIGHT (HARRISON)

Martin Scherzinger (New York University), Chair

The Puzzle of Style: On Leonard Meyer's Unlikely Replications Brian Miller (Yale University)

Strangely enough, the concept of style has rarely received sustained attention from music theorists. While many particular styles have been studied at length, the only major inquiry into the concept itself in recent decades is Leonard Meyer's *Style and Music* of 1989. Meyer's account, describing style as replicated patterning resulting from choices made within some set of constraints, has continued to be cited but has not been further elaborated or challenged in any systematic way. Given the wide range of intellectual developments both contemporary with *Style and Music* (especially in other disciplines, which Meyer cites widely but not systematically) and more recent (including a variety of "turns" in music scholarship), it is high time to revisit the concept.

This paper begins that inquiry by considering a class of thought experiments that might be called "style puzzles," in which some paradoxical or impossible imagined work is probed for insights about style, replication, or related concepts. Meyer himself discusses one famous example, Borges's "Pierre Menard, Author of the *Quixote*"—but Meyer's reading fails to fully grasp the stylistic implications of the story's central paradox, and thus points symptomatically to a gap in his theory. I situate Meyer alongside readings of this and other style puzzles from art historians, including Arthur Danto and Whitney Davis, whose investigations spur cross-disciplinary difficulties alongside insights into important questions: How are replication and choice manifested and recognized in/as musical style? More broadly, what can and should the notion of style do for the study of music?

The Bias of Western Musical Notation in Music Copyright Litigation

Dana DeVlieger (University of Minnesota)

In music copyright law, it has been asserted that music is a quantifiable object and that music analysis is an objective act. However, because musical arguments lack falsifiability, music analysis is instead a subjective, interpretive act. Inherent in interpretive analytical decisions are value

judgments about what is worth analyzing and what methods should be used. Because our analysis techniques are rooted in Western art music, these decisions often prioritize melody and harmony. Consequently, these musical features are prioritized by American copyright law. While melody and harmony are considered valuable musical features worthy of copyright protection, musical features that are important to other musical traditions are devalued.

This paper investigates the ways that different musical features are valued or devalued in music copyright law by suggesting that the continued use of Western musical notation in the courtroom has played a substantial role in perpetuating the prioritization of so-called "primary" musical features and the devaluing of "secondary" ones. In addition to prioritizing certain musical features over others, staff notation can alienate or sway the jury of "lay listeners" often required in music copyright cases.

The decisions made in music copyright cases contribute to the power dynamics at play in the music industry: deciding who can create what, how something can be created, and who deserves credit for the creation. Since music copyright cases can have a tangible effect on the creation of popular music, it is crucial that we as music scholars interrogate and address the biases inherent in music copyright law.

Deposit Copy or Recording? Sources for Musical-Legal Analysis in Current Federal Copyright Litigation

Katherine M. Leo (Millikin University)

Musical similarity in federal copyright lawsuits is analyzed first by expert witnesses, followed by non-expert factfinders, either judges or jurors. Although the legal scope of their assessments is different, both groups must compare tangible copies of the songs at issue: either sheet music filed with the U.S. Copyright Office as a deposit copy; or recordings and transcriptions of them, produced by experts for the purpose of litigation. For music copyrighted prior to the enactment of the 1976 Copyright Act, sheet music served as the primary representation of a song as intellectual property. Although written notation ostensibly promises legal documentation, for music created first on record, deposit copies are often de facto lead sheets that merely outline more complex compositions. If these songs are later implicated in copyright lawsuits, what source should serve as the point of musical-legal comparison: the deposit copy or the recording?

Saturday

This question has emerged in three current federal copyright lawsuits: Williams v. Bridgeport Music, over the songs "Blurred Lines" and "Got To Give It Up"; Skidmore v. Led Zeppelin, over the songs "Taurus" and "Stairway to Heaven"; and Griffin v. Sheeran, over the songs "Let's Get It On" and "Thinking Out Loud." After a gloss of legislative discrepancies between the 1909 and 1976 Copyright Acts and relevant judicial decision-making processes, this presentation examines court records and compares examples from these cases to model the ontological problematics of musical-legal analysis. In so doing, it highlights the critical, and public, role of musical analysis in federal copyright law.

ROTATION, REVOLUTION, AND RUBATO IN OPERA (MCKINLEY)

Deborah Burton (Boston University), Chair

Rotational Form as a 'Becoming' Process: An Analysis of the "Annunciation of Death" Scene in Wagner's *Die Walküre*

Ji Yeon Lee (University of Houston)

The "Annunciation of Death," a duet in Act 2, scene 4 of Wagner's *Die Walküre*, is a dramatic turning point in the Ring Cycle. The warrior goddess Brünnhilde appears to the mortal Siegmund to deliver the chief god's decree that he shall die in an upcoming battle; however, as Siegmund appeals for mercy for the sake of his sister-lover Sieglinde, Brünnhilde's resolve weakens, and she decides to defy her orders and save him. Moreover, the sympathy and love she learns through their encounter ultimately motivates Brünnhilde to commit the sacrifice that redeems the world at the end of the Ring Cycle.

The dramatic importance of this scene has attracted much attention from scholars; significant studies include analyses by Alfred Lorenz (1924), Robert Bailey (1977), Eero Tarasti (2012), and Karol Berger (2016). My paper revolves around the changing dramatic relationship between Brünnhilde and Siegmund over the course of the scene, and its reflection in the musical architecture.

In my reading, the dramatic narrative is realized in rotational form, with each rotation led by "Siegmund's Death Song"—a motive usually associated with Siegmund's downfall. However, instead of treating the motive as a fixed signifier for Siegmund, I explore how the realization of the motive and the resulting progressive momentum in the playing-out of the rotational form reveal a shift between which character exercises control

over the narrative. By tracing this narrative dynamic, the rotational form of the duet can be appraised not as a rigid organizational constraint, but as a drama-generating process.

Dissonance and Political Violence in Two Sappho Operas Calvin Peck (Indiana University)

Like most 18th-century operatic renditions of the tale, the dramatic climax of Antoine Reicha's *Sapho* (1822) occurs when the title character sacrifices herself by jumping off the Leucadian cliffs. Reicha's musical setting of the scene is extraordinary by the standards of early 19th-century opera, as it harmonizes a descending chromatic scale with sequential diminished seventh and second-inversion dominant seventh chords. Evidence suggests that this moment may have caught the attention of government censors, and Reicha opined over the musical changes forced upon the opera, particularly by the administrators of the Académie royale de musique, in his unpublished autobiography.

Reicha's opera might have been considered suspicious because of its relationship to another Sappho opera by Jean-Paul-Égide Martini that premiered in France in 1794. Martini's opera is relatively unknown today, but several critics made connections between the two versions. Martini's Sapho was among the most popular newly-composed works in Paris during the Thermidorian Reaction: its most striking feature is undoubtedly the 12-note chord found in the overture, recast as a 10-note harmony at the moment of sacrifice.

David Charlton suggests that the libretto of Martini's version (written by Constance de Salm) may contain hidden criticisms of policies championed by Jacobins during the Reign of Terror. My paper will solidify Charlton's hypothesis by analyzing how Martini's hyperdissonant chord functions as a signifier of Revolutionary failure, through examining relationships between the use of dissonance and Revolutionary iconography in the opera, allowing the sheer act of dissonance to be inextricably linked to narrative invocations of authoritarian violence.

Transacting Musical Time: Where Rhythm Ends and Rubato Begins

John Y. Lawrence (University of Chicago)

Most studies of expressive timing in classical music analyze performances in conjunction with scores. But many listeners do not access scores. They work from sound alone to ascertain rhythm and rubato simultaneously.

Saturday

Conflict arises between with-score and without-score perspectives whenever rubato is extreme enough that a listener perceives a different rhythm from what is notated. In this paper, I examine instances of this conflict in the verismo opera tradition and the challenges they pose for theories of rhythm perception.

I first propose five ontological levels at which rhythm manifests: ideal (prototypical norms), notated (what is written), performed (what is notated plus the performer's rubato), sounding (durations without rhythmic interpretation), and perceived (what is understood by a listener). I then provide multi-level analyses of passages from *Cavalleria rusticana*, *Pagliacci*, and *Tosca*. I suggest that in each case, the perceived rhythm is different from the notated rhythm at even the level of meter and/or hypermeter. I then ask: what might it feel like to be the performer here, what might it feel like to be the scoreless listener, and why might this performing tradition have been established in the first place?

I conclude by exploring the implications of these examples for rhythm theory as a whole. The hard distinction between rhythm and rubato is undermined when tempo manipulation is aurally indistinguishable from metric manipulation. Instead of defining "expressive timing" as deviation from written note values, I suggest that timing is made expressive by the ascription of agency.

SPECULATIVE MAPPINGS (TAFT A)

David Huron (Ohio State University), Chair

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. 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 generalization of concepts like "well formedness" to all scales.

Using Interactive Software to Enhance Mapping of Complex Multi-dimensional and Dynamic Musical Relationships

Michael Clarke, Frédéric Dufeu, & Keitaro Takahashi (University of Huddersfield, England)

Analytical charts and diagrams have traditionally been printed on paper and as such have been fixed and static. The two-dimensional page is also limited in the amount of information that can be presented clearly. However, musical structures are, more often than not, very complex, with multiple interrelations which evolve dynamically.

This presentation will examine ways in which software can help facilitate analytical representations that better reflect this complexity and multi-dimensionality of dynamically transforming interrelations. Examples will be presented from previously completed analyses and current work on the IRiMaS project ('Interactive Research in Music as Sound,' funded for five years, 2017–22, by a European Research Council Advanced Grant) will also be discussed and illustrated. An aim of this project is to extend such analytical techniques to a broader repertoire and facilitate their wider use. Our analyses to date were produced as completed packages with the participation of expert programmers. One aspect of IRiMaS involves developing tools for use by non-technical music researchers, enabling them to adopt a similar analytical approach, creating their own extensible interactive analyses independently of specialist technical support. These tools are also being developed so as to encourage use with a much broader range of musics, including non-Western music, aural/oral traditions, improvisation, and spectral music. Interactive aural software offers new possibil-

Saturday

ities for analysts, with the opportunity to enhance the way analysis is presented, and it also potentially changes the way analysts and their readers work.

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

James Sullivan (Michigan State University)

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).

THE JOY OF FORM AND THE FANTASY OF THEORY (HARRISON)

Nathan Martin (University of Michigan), Chair

The Form of Fantasy and the Fantasy of Form in the Writings of A. B. Marx

August A. Sheehy (Stony Brook University)

Adolph Bernhard Marx (1799–1866) did not mince words about the "goal of the whole Formenlebre": "in it and with it, and through it," he wrote, "we become free." Contrary to received wisdom, what Marx called the "last steps to freedom" are not taken in sonata form. Rather, they happen in "fantasy," which, he wrote, "can follow no predetermined path or have a predetermined form, because it is indeed just the giving up of such a determined form." Marx's fantasy thus conforms to Seth Brodsky's psychoanalytic reading of musical fantasy as a constitutive gap, a "code of no code, an executive order suspending order, a masterful unmastery." Fantasy is the form with no form.

And yet, Marx cites specific, determinate examples of fantasy. Pieces by Mozart and Beethoven become opportunities to leverage a discourse in which, as Brodsky observes, "freedom' becomes [the] urtext, a mortified signifier it is now tasked with revivifying and filling out." In short, Marx turns the musical form of fantasy into a fantasy about musical form, a fantasy in Freud's sense: a "fulfillment of a wish, a correction of an unsatisfying reality" that represses "distressing ideas...[that] threaten happiness or self-esteem." These distressing ideas, I argue, originated in Marx's Jewish heritage and were experienced through the politics of German-Jewish assimilation. His fantasy, manifested in a working-through of musical forms, thus reveals the political stakes of *Formenlehre* at the moment of its historical articulation.

Theorizing Sonata from the Margins: Manuel Blasco de Nebra's *Seis Sonatas* (1780) in Context

Bryan Stevens (University of North Texas)

Recent developments in Formenlehre have provided new insight into classical form (Caplin 1998; Hepokoski and Darcy 2006); however, such scholarship has tended to privilege Viennese classicism in its codification of ideal formal types and norms. For this reason, an uncritical application

Saturday

of such methods obscures rather than elucidates conventional practice when applied to works in parallel traditions. The occasional music-theoretic approaches to Spanish keyboard music (Powell 1980; Sutcliffe 2014; Igoa Mateos 2014) of composers such as Vicente Rodríguez (1690–1760), Joaquín Oxinaga (1719–89), Sebastian Albero (1722–57), Félix Máximo López (1742–1821), Narciso Casanovas (1747–99), Manuel Blasco de Nebra (1750-83), and Joaquin Montero (1764-1815) have not accounted for the possibility of a Formelehre tradition parallel to that of Viennese classicism. This paper takes Blasco de Nebra's Seis sonatas para clave y fuerte-piano (1780) as a point of departure in order to demonstrate how classical norms may be reexamined and reevaluated to account for such a collection in its own historical context. Retheorizing both thematic construction as well as sonata structure from the perspective of these Spanish sonatas provides better insight into these works than the presuming of some ideal (Austro-Germanic) sonata form. In this paper, I will outline the general formal features of Blasco de Nebra's keyboard sonatas and provide examples of earlier and contemporary works in order to demonstrate how these same features—often atypical for the Viennese composers—are normative for the keyboard sonata in this region.

The Joy of Sextabsätze:

The Deceptive Cadence and Other Such Slippery Events

L. Poundie Burstein (Hunter College and The Graduate Center, CUNY)

Is a V–VI deceptive cadence truly a "cadence"? Many argue that it is not, claiming that a V–VI motion merely delays the arrival of an ensuing authentic cadence. Yet even within pieces composed during the 18th-century, some phrases do indeed conclude with a V–VI progression, with ramifications that deeply affect the work's narrative structure. The concepts of Heinrich Christoph Koch provide avenues for thinking about these and other such unsettled phrase endings in a manner that is far more fluid than what is typical of modern theoretical approaches and in ways that can inform both analysis and performance.

VOICES (MCKINLEY)

Andrew Chung (University of North Texas), 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 presentation, 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.

The "Ahhs" Have It: Wordless Melismas and the Ineffable in Popular Music

Martin Blessinger (Texas Christian University) & Christopher Endrinal (Florida Gulf Coast University)

In his 2010 *Popular Music* article, songwriter Pete Astor defends the discursive and emotive primacy of lyrics: "There is for me a greater value to those compositions with lyrics, a sense that the material that contains the greatest level of emotional commitment is always that where words are employed..." On the other hand, Johan Fornäs argues that "the text/music dichotomy is an illusion. They are not each other's Other." This raises a tantalizing question: What of music that is performed by the human voice, yet nonverbal?

This presentation explores such music, specifically how extended passages of nonverbal singing in popular music—"wordless melismas" (WMs)—help the voice transcend the expressive limits of the verbal and

Saturday

assume the apparently ineffable qualities of the instrumental. WMs are monosyllabic passages found in their own musically distinct section, usually bridges or concluding sections. Songs may have recurring or multiple different WMs. Additionally, WMs are not background elements, nor are they repeated (and often nonsensical) syllables like "na na" or "sha-la-la." From these criteria, we have extrapolated four functions WMs fulfill within a song's form and narrative, the details and examples of which we expound upon in greater detail in the presentation: introductory ("Welcome to the Jungle," Guns N' Roses), conclusive ("Criminal," Fiona Apple), transformative ("You Oughta Know," Alanis Morissette), and climactic ("With Or Without You," U2). In each of these cases, the voice occupies a previously unexplored border region between the vocal and the instrumental, the verbal and the ineffable.

To Be the Music: Mimetic Engagement with Caroline Shaw's *Partita for 8 Voices* Anna Fulton (Grand Valley State University)

The program note to Caroline Shaw's Pulitzer-prize-winning Partita for 8 Voices (2012) includes an unusual instruction: prompted by uproarious reaction at its premiere to an "explosive" D-major reprise in the final movement, listeners are encouraged to "holler or clap any time you feel like it." These and other embodied reactions to the piece are a kind of mimetic engagement (Cox 2011; 2016). The Partita's invitation to mimetic engagement is made particularly strong by its unusual vocal techniques. Shaw plays with the "edges" of the voice, weaving into the music a physicality that Western classical vocal technique often diminishes. Mimetic engagement can manifest as identification with a performer (Heidemann 2016), but with multiple voices, Shaw's Partita lacks this focal point. Instead, mimetic engagement informs the perceived relationship between performative action and "the music itself." In this analysis I draw both from Cox and from Eric Clarke's notion of a musical "virtual world" (Clarke 2005), understanding "the music" as a separable energy or plane of existence, rather than equivalent to performative action. I present two possible relationships between music and performance: performance unveiling the music, and music and performer mutually striving for each other. I focus primarily on the second movement ("Sarabande") for examples of each, and conclude with an exploration of the D-major reprise of "Passacaglia," which combines elements of both relationships.

YOUTUBE AND PARTICIPATORY MUSIC MAKING (TAFT A)

Alyssa Barna (University of Minnesota), Chair

Reinterpretation as Cultural Practice: Sketches for a Cover Song Continuum

Evan Ware (Central Michigan University)

The website SecondHandSongs counts nearly 300,000 covers from any linguistic or cultural origin. By their own admission, this is likely a vast underestimation. If this points to anything, it is that cover songs are an unquestionably important medium of cultural expression in popular music around the globe. Yet, outside of analyses focused on individual original-cover pairings, scholarship has paid little attention to the overall cultural practice of covering.

In this paper, I suggest a possible way forward by advancing a theory that sees originals as "strategies," or institutional forces, which artists use, adapt, and resist through the individual creative decisions—or tactics made in the creation new versions. These decisions can be thought to lie on a continuum where similarity (isomorphism) and difference (metamorphism) are plotted against each other. Thus, they are construed as coproductive aspects of interpretation; a tactic that will always result in both likeness and contrast, albeit in differing proportions. By understanding these proportions in each tactic across the whole cover, specific observations about how the artist's interpretation of the song can be advanced. The Eagles of Death Metal's version of "Save A Prayer" (2015), originally by Duran Duran (1982), serves as a case study. By examining pronunciation, production, lyrics, performance, genre, register, harmony, counterpoint, and timbre, I argue that the cover band's interpretation is deliberately resistant to the original in order to create new meanings more in line with their identity.

The *Techné* of YouTube Performance: Musical Structure, Extended Techniques, and Custom Instruments in Solo Pop Covers

William O'Hara (Gettysburg College)

They begin with a note, a chord, the tap of a button, or the triggering of a loop: through progressively layered textures, samples, and extended performance techniques, solo cover songs on YouTube often construct themselves piece by piece before the viewer's eyes and ears. Combining

Saturday

virtuosity and novelty in a package ready-made for viral online popularity, this recent and rapidly growing internet phenomenon draws together traditions old and new, from the "one-man band" of the 19th century, to the experimental live looping of 1980s performance art, to contemporary electronic music. This presentation examines three recent popular YouTube videos in order to study the ways in which amateur musicians craft such arrangements through a combination of creativity and musicanalytical understanding.

Building on a number of recent studies that examine the affordances and restrictions of writing and performing music on various instruments, I explore how these YouTube performers use theoretical and instrumental expertise to convey complex textures through a minimal collection of musical materials. In each case, the instruments themselves are arranged, modified, or even created in order to make these performances possible. The videos often incorporate looped or layered elements, arranged to take advantage of a song's harmonic or rhythmic structures; and they frequently feature customized, self-created, or otherwise unconventional instrumentation. Through their sparse, economic construction, these intricate arrangements are each the end product of a careful analysis of each song, and they have much to teach us about the harmonic, melodic, and rhythmic structures of popular music.

Like, Comment, and Subscribe: Amateur Music Theory as Participatory Culture Julianne Grasso (University of Chicago)

Public-facing music theory is a topic gaining steam among academic music theorists, particularly given the digital networks in which such discourse can thrive. Indeed, much public music theory is disseminated online, over social networks that blur the formal and informal. At the nexus of these blurred lines is the increasingly popular arena of educational social media channels, many of which feature music analysis of narrative screen media.

This paper focuses on online content that is advertised as a "music theory" approach to understanding media, in which amateur analysts position themselves not as authority figures but as fellow lovers and fans of the media they analyze. Following Kiri Miller's (2012) ethnography of amateur-to-amateur online pedagogues or "A2A," I argue that this particular practice shows evidence of an emerging participatory culture of music

fans that includes amateur analysts alongside other kinds of musicians and enthusiasts.

In exploring responses to this online content, this paper also considers the discursive role of music theory in valuating popular musics as worthy of analysis for their structural complexity; music theory operates as a methodology of legitimization that uncovers the "secrets" of the music as well as the musical values of its fans. I further consider the unmarked politics of identity in this sphere, reflecting on how and why these videos are overwhelmingly produced by young white men. Examining who participates in this emergent participatory practice can shed light on why, how, and for whom music theory and analysis exists and persists.

SATURDAY AFTERNOON SESSION—4:00-5:30

2019 SMT PLENARY: REFRAMING MUSIC THEORY (UNION BALLROOM, 2ND FLOOR)

Elizabeth West Marvin (Eastman School of Music), Chair

The field of music theory has been shaped by intersecting systems of knowledge and power that involve race, ethnicity, gender, sexuality, ability/disability, culture, and nationality. These four papers critique the confining frames within which our field has been operating and explore ways in which to reframe what constitutes music theory.

Music Theory's White Racial Frame

Philip Ewell (Hunter College and The Graduate Center, CUNY)

For over twenty years music theory has tried to diversify with respect to race, yet the field today remains remarkably white. SMT's most recent report on demographics shows that 90.4 percent of full-time employees in music theory are white, while 93.9 percent of associate/full professors are. Aside from this literal whiteness, there exists a figurative and even more deep-seated whiteness in music theory. This is the whiteness—which manifests itself in the composers we choose to represent our field inside and outside of the classroom, and in the theorists that we elevate to the top of our discipline—that one must practice, regardless of one's own personal racial identity, in order to call oneself a music theorist. Thus, for example, I am a black person, but I am also a practitioner of "white music theory." In this presentation, a critical-race examination of the field

Saturday

of music theory, I try to come to terms with music theory's whiteness, both literal and figurative. By drawing on the writings of sociologists Joe Feagin and Eduardo Bonilla-Silva, among others, I posit that there exists a "white racial frame" (Feagin) in music theory that is structural and institutionalized. Further, I highlight certain racialized structures which "exist because they benefit members of the dominant white race" (Bonilla-Silva). Ultimately, I argue that only through a deframing and reframing of this white racial frame will we begin to see positive racial changes in music theory.

From Exoticism to Interculturalism: Counterframing the East-West Binary

Yayoi Uno Everett (University of Illinois at Chicago)

In this presentation, I address the need to expand the musical repertory for analysis beyond the Western canon, as well as to develop intercultural strategies for analysis that reflect the multicultural subject positions of composers, performers, and theorists. In my area of specialization, discourses on exoticism, transculturation, Orientalism, and globalization have provided a framework for examining music composed by postwar composers of East Asian heritage, such as Chou Wen-chung, Toru Takemitsu, Tan Dun, Chen Yi, Unsuk Chin, and others. However, scholarly writings and reception of this music have tended to perpetuate the East-West binary by reinforcing musical stereotypes and familiar labels. Within music theory, this repertory has been assimilated into the canon and legitimized through application of post-tonal and other formalized models of analysis. Prompted by developments in gender, semiotic, and disability studies, I explore analytical approaches that counterframe the binarism by privileging culture-specific modes of attending to musical gestures and expressive meanings, as exemplified in recent publications by Nancy Yunhwa Rao, Shyhji Pan-Chew, Eric Lai, and Christian Utz, among others.

Music Theory's Therapeutic Imperative and the Tyranny of the Normal

Joseph Straus (The Graduate Center, CUNY)

Traditional music theory rationalizes abnormal musical elements (like dissonant or chromatic tones or formal anomalies) with respect to normal ones. It is thus allied with a medical model of disability, understood as a deficit or defect located within an individual body, and requiring remediation or cure. A newer sociocultural model of disability understands it as

a culturally stigmatized deviance from normative standards for bodily appearance and functioning, analogous to (and intersectional with) race, gender, and sexuality as a source of affirmative political and cultural identity. The sociocultural model of disability suggests the possibility of a disablist music theory, one that subverts the traditional therapeutic imperative and resists the tyranny of the normal. Disablist music theory is music theory without norms, and without a commitment to wholeness, unity, coherence, and completeness—those fantasies of a normal, healthy body. Instead, disablist theory brings the seemingly anomalous event to the center of the discussion and revels in the commotion and discombobulation that result: it makes the normal strange. In the process, it opens up our sense of what music theory is and might be.

Getting to Count

Ellie M. Hisama (Columbia University)

In comparison with AMS and SEM, SMT remains a starkly male-identified society. According to the SMT's 2018 annual report on demographics of its membership, 33.4 percent of SMT members self-identified as women—a figure that has not changed significantly over the last five years—in comparison to 51.2 percent of AMS members and 52.2 percent of SEM members. The NORC Survey of Earned Doctorates indicates that in 2013-2016, 26.4 percent of US PhDs in music theory and composition were women, marking a notable increase from 18.9 percent for the previous five-year period but hardly giving us bragging rights. The continued paucity of women, trans, and non-binary gender music theorists should be a huge concern to the Society. Demographic diversity is not only an issue of equity, but also yields innovation in research that enriches the field. As psychologists Abigail Stewart and Virginia Valian assert, "different interests and experiences give rise to different perspectives and ideas."

Drawing on insights from women scholars and scholars of color in classics and philosophy, as well as reflections from and about female music theorists, this paper considers the importance of rethinking what gets to count as music theory; the necessity for some scholars of finding disciplinary homes outside music theory; and the possibility of doing music theoretical work that, in feminist writer Sara Ahmed's words, "is in touch with the world."

NAVIGATING KEYS (HARRISON)

Michael Buchler (Florida State University), Chair

"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. 1920–45), 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*.

Double-Tonic Complexes as Bistable Phenomena in Gershwin Thomas William Posen (McGill University)

In this paper, I analyze double-tonic complexes as bistable phenomena that arise from the collision of two relative-related keys using Gershwin's Concerto in F as a case study. The double-tonic complex (Bailey 1985) has inspired studies that investigate tonal pairing, juxtaposition, or conflation of more than one key at a variety of structural levels in the music of several 19th-century composers (e.g., Lewis 1984; Kinderman and Krebs 1996). By adapting the work of Harrison 1994 and Swinden 2005, I create a music-theoretic parallel to a neural network model developed by Stadler and Kruse 1995 that models our perception of bistable images, for example, the rabbit-duck illusion. I propose treating conflated doubletonics as the collision of two keys' tonics that produces two bistable tonics, for example, an F-minor seventh-chord and an added-sixth Ab-major tetrachord. I refashion Swinden's superscript-notation to emphasize both states (e.g., Foreground-Key/Alternate-Key). To develop further this bistable interpretation, I introduce bistable dominants and investigate their voice-leading implications in a bistable dominant-to-tonic model. A harmonic, collision-based approach accentuates the paradox of bistable keys: both keys function as stable states, but because there remains a possibility of switching between them, the stability of each key is partially undermined by the other. Treating conflated, double-tonic complexes as bistable phenomena inspires compelling narratives for interpreting Gershwin's Concerto and other pieces that have similar double-tonic complexes.

Multidimensional Harmony in Schubert's "Der Doppelgänger": A Complex of Memory and Identity Jason Patterson (Collin College)

The texture of Schubert's "Der Doppelgänger" is simplistic, yet its desolate landscape continues to draw the attention of musical analysts. One striking feature is the modulation from the B-minor tonic to D-sharp minor in mm. 47–50. Most Schenkerian analyses reconcile the significance of this passage as a third-divider or remove it completely from the middleground voice-leading. On the other hand, I offer a reading that places D-sharp minor at the center of the song's structure and narrative meaning.

For this analysis, I am employing a new methodology inspired by transformation models and Robert Bailey's double-tonic complex: the multi-dimensional musical object (MMO). A MMO allows the analyst to expand the traditional tonic from a single triad into a nexus of interconnected triads a major third apart. These additional tonal dimensions help to clarify the complicated harmonic language of 19th-century composers by incorporating more chords within a single function—or a single *Stufe* for

Schenkerian analysis. In Schubert's "Der Doppelgänger," the tonic function encompasses B minor and D-sharp minor. This interpretation is supported by Schubert's setting of the text, in which D-sharp minor is used to represent the Doppelgänger—a different version of the poem's protagonist. The Doppelgänger is a manifestation of the past and the trauma that is associated with those events.

FRETS, SLIDES, AND FEELS IN PUNK, ROCK, AND POP (MCKINLEY)

Christopher Doll (Rutgers), Chair

Connecting the Dots: Guitaristic Geometry as a Punk Harmonic Practice

William Weston Bennett (Harvard University)

A "tonality" that comprehensively accounts for compositional practices in pop, rock, and related genres has long proved elusive. Correspondingly, examining the ambiguities that vex this effort has become a regular exercise in music-theoretical discourse. However, the degree to which such ambiguities may be encouraged by material factors is largely unexamined: do they result from the application of an abstract system comparable to common-practice tonality, or from intuitive choices under the fingers, instrumental affordances and expediencies—in short, from playing?

I examine early compositions of the Ramones and propose that this repertoire provides a rich case study in this regard. Having tabulated the fretboard positions of the power-chordal motion within these songs, I argue that the majority of the Ramones's original material from this period can be classified within geometric "grid" topologies, of which the significant majority fall on fretboard positions marked with "dots." Furthermore, the orientation of the grid topology correlates strongly with the employment of secondary chords, suggesting that the arrangement of frets, fretboard markers, and strings on the guitar inform compositional praxis to a significant degree. Consequently, I propose that this repertoire—puzzling if one attempted Roman-numerical description, exhibiting ambiguous semitonicizations, unprepared modulations, and free modal mixtures— evidences a consistent harmonic logic that demonstrates intuitive, physical explorations of literal tonal "spaces." Finally, in foregrounding the guitar as an "instrument of music theory" (Rehding 2016), I argue that attending to the alternative musical logics encouraged by instruments has ethical implications, widening our appreciation of music-theoretical norms.

Rock Slides and Other Uncommon Progressions in Popular Music Harmony

David Forrest & David Sears (Texas Tech University)

Several studies have identified the most common harmonic progressions in popular music using either qualitative or quantitative methods (Stephenson 2002; Everett 2004, 2009; Temperley 2018). This paper complements those studies by adopting converging methods to identify the least common consonant progressions in a pop/rock corpus and examine their usage, thereby deepening our understanding of the genre's harmonic syntax.

This paper examines the McGill *Billboard* corpus (Burgoyne et al. 2011), which consists of harmonic annotations for 740 songs selected from the *Billboard* "Hot 100" (1958–91). This study spotlights the nine least-common progressions between consonant triads, many of which have received considerable treatment in recent scholarship, such as the Tarnhelm and hexatonic-pole progression, and yet collectively represent only 0.67% of the consonant progressions in the corpus. Contributing to studies of text painting in concert, film, and popular music (Cohn 2004; Murphy 2014; Forrest 2017; Heine 2018), our analyses reveal uncanny, extra-musical associations with these nine progressions. The results suggest that the power of these progressions for suggesting "the other" lies more in their relative rarity in the syntax than in their voice-leading or tonal function. Furthermore, by combining distant- and close-reading methodologies, this paper also reveals less obvious usage of these progressions for chromatic embellishment and for articulating formal divisions.

"Feels" as Team Efforts: Exploring the Roles and Interactions Between Instruments in Popular-Music Time Feels

Jose Manuel Garza, Jr. (Texas State University)

To generate rhythmic interest in their songs, musicians manipulate time feels, which affect listeners' perception of meter by maintaining a tempo while making the music seem faster or slower. As de Clercq (2016) describes, drummers dictate time feels through the placement of the kick and especially snare drum. Time feels have become stylistic markers of specific genres, as with double-time in bebop (DeVeaux 2015, 211; Taruskin 2009, 99) and half-time in hardcore punk breakdowns (Easley 2011, 145). Despite their significance, however, scholarship on time feels remains sparse. Moreover, authors have not explored how instruments besides the kick and snare drums aid in creating feels. Although other

instruments exercise more freedom within a feel compared to the drums, one observes recurring elements between passages of the same feel. Extrapolating these characteristics opens discussion regarding the degree to which an excerpt adheres to a feel. Characteristics associated with the same feel, when presented simultaneously, strengthen a feel, whereas conflicting characteristics weaken a feel and suggest the possibility of feels "in dialogue." In this paper, I observe the musical material of instruments such as cymbals, electric guitar, and bass guitar in order to further delineate the characteristics of existing feels. I also examine how elements of various feels presented simultaneously strengthen or weaken the feel indicated by the drums. I draw examples from post-millennial rock and metal, in which musicians use a wide range of feels.

SCHEMATA IN KLEZMER AND STRAVINSKY (TAFT A)

Lynne Rogers (The New School), Chair

Listening to Klezmer Music with Schema Theory

Yonatan Malin (University of Colorado Boulder)

This paper makes an initial foray into the analysis of klezmer music via schema theory. I explore two schemas drawn from a corpus of 254 instrumental melodies collected in the 1920s and '30s by the Soviet Jewish ethnomusicologist Moshe Beregovski. The first schema is a $\hat{7}-\hat{5}-\hat{3}$ pattern that I call "coming-back-to-earth." It typically occurs as a "second thing"—either in the second section of a small form or in the second part of a section, leading to a cadence. Audio examples include a 1937 recording by the Soviet State Ensemble of Jewish Folk Music and tracks from Bessarabian Symphony (Joel Rubin and Joshua Horowitz 1994) and Jews with Horns (The Klezmatics 1994). The second schema is a distinctive modal coloring with $b\hat{5}$ in minor, and raised- $\hat{6}$ when $\hat{6}$ is present. I refer to this as the "tashlach move" from the piece Fun Tashlach recorded by Naftule Brandwein. The tashlach move typically occurs at the end of a section or piece and derives from the Turkish makam karriğar. I document the tashlach move in Beregovski's instrumental corpus and in the Dybbuk Shers, composed by Alicia Svigals and recorded by Itzhak Perlman with Svigals and the Klezmatics (In the Fiddler's House 1995). The methodology is aligned with schema theory three ways: (1) it focuses on surface-level patterning that combines form and function; (2) it develops empirically, from the ground up; and (3) it presents an archaeology of listening for a distant

musical culture (Gjerdingen 2007; Gjerdingen and Bourne 2015; Byros 2012).

Tartar Sauce and Travesty: Deformations of Galant Schemata in Stravinsky's Neoclassicism Sarah Iker (Massachusetts Institute of Technology)

When listeners experience Igor Stravinsky's neoclassical works, they often report hearing familiar tonal archetypes alongside modernist, "Stravinskyian" materials. Henri Prunières, for instance, describes the première of *Pulcinella* (1920) as "Pergolesi's music, flavored by Stravinsky's tartar sauce," while a reviewer of the London première of the Concerto for Piano and Wind Instruments writes, "M. Stravinsky has affirmed his undying allegiance to Johann Sebastian Bach [...] Yet what a travesty of Bach it is" (*Our London Music Critic* 1929). While the implications of these reviews are multifaceted, they share an underlying focus on Stravinsky's alterations of earlier styles, whether as light condiment ("tartar sauce") or more deeply costumed ("travesty").

This illuminates an analytical possibility. In this paper, I argue that using Robert Gjerdingen's archetypes for galant schemata ("stock musical phrases employed in conventional sequences," Gjerdingen 2007, 6), can reveal how Stravinsky's neoclassicism might have been conceptualized by historical listeners. I also draw on James Hepokoski and Warren Darcy's notion of deformation as dialogic process (Hepokoski and Darcy 2011), applied to schemata in order to explore how such phrases can remain recognizable and expectation-laden when some essential features of the pattern endure, but others are changed or absent. These analytical deformations—whether tartar sauce, travesty, or something in between—expand the ways that the concept of deformation can be used in analysis and provide a window into how neoclassical music (whether by Stravinsky, Ravel, or others) is commonly experienced.

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 1920–28, 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 $\hat{6}-\hat{5}-\hat{4}-\hat{3}$ above a bass on $\hat{4}-\hat{3}-\hat{2}-\hat{1}$ More than 50 percent 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.

FORM IN THE LONG 19TH CENTURY (TAFT C)

Janet Schmalfeldt (Tufts University), Chair

Musical Form and Visual Illusion in Two Songs from *Winterreise*Jonathan Guez (The College of Wooster)

Umberto Eco once described the effects that accelerations and decelerations can have on a novel's drama. By disrupting the work's deep-level periodicity, he writes, such speed-changes mark "turning points" and "surprise developments." This paper brings Eco's insight about the dramatic function of rhythmic irregularities into the realm of music. I analyze two songs from Winterreise whose recapitulations are abbreviated, vis-à-vis their referential expositions, "Täuschung" and "Die Nebensonnen." The recapitulatory accelerations help to project the songs' titular visual illusions. They "stage," in music, the sense-deceptions that confront the cycle's protagonist as he traverses his glaucous landscape.

"Täuschung" describes a will-o'-the-wisp that lures the wanderer from his icy path. Müller's poem features no stanzaic divisions but Schubert renders it musically in an ABA' form whose reprise is five measures shorter than its exposition. Coupled with the Schubertian "score-as-landscape" metaphor, this deviation from the referential plan can be read as enacting, in music, the swerve performed (on the word "Täuschung") by the winter-wanderer.

In "Die Nebensonnen," phantom suns illuminate the wanderer's strophic song from two physical locations, casting different harmonic shadows. As the wanderer sarabandes through the multistellar space, there is a concomitant change of lighting. The recapitulatory acceleration registers a change in the objective conditions of the landscape. As the physical sun begins to set on the wanderer in this penultimate song, its flanking illusions draw inwards towards it, and the shadows they cast draw closer together until they overlap at the midpoint of the strophe.

Formal Interplay in Ternary Piano Works by Johannes Brahms Laurence Sinclair Willis (McGill University)

Many of the short piano works written in the last decades of the 19th century are constructed as ternary forms (ABA'). This paper accounts for processes of transfer and compensation among ternary sections, such as when B materials infiltrate A' sections or when A' sections "solve" a musical "problem" shared by both A and B materials. Using analytical vignettes drawn from Brahms, I illustrate the tension between unity of expression and contrast in the relationships among different sections, building on the research of McClelland 2009, Scott 1995, and Cadwallader 1988. To do this, I develop two paradigms of balance in the final sections of short ternary pieces: unifying returns and compensatory returns. Unifying returns combine A and B materials within the A' section. For example, in Op. 119/I the A' prime section integrates the descending fifth progressions expressed through chains of thirds of its A section with the chromatic melodic linkages of its B section. Compensatory returns do not feature such unification of materials. Instead, some other effect of balance is made in the A' section. For example, in the final measures of Op. 117/I, a deceptive resolution to a root-position subdominant compensates for the lack of that harmony throughout the rest of the composition. Through analytical examples such as these, I develop the features of my two para-

digms. The result is a language that can help reorient us toward such subtle effects and may enrich our analysis of music of other genres, styles, and periods.

Being, Becoming, and *Dasein*: Two-Dimensionality and Form-Functional Regressionin Richard Strauss's *Eine Alpensinfonie*

Kelvin H. F. Lee (Durham University)

Finessing Janet Schmalfeldt's (2011) dialectical formulation of "becoming" (captured by ⇒), Nathan Martin and Steven Vande Moortele (2014) propose a more specific distinction between two heterogeneous cases of form-functional transformation. The first describes a condition of form-functional oscillation (symbolized as ⇔); the second alludes to the possibility of form-functional regression (represented by ⇐), by which they intend the syntactic reversion of form-functional profile (e.g. subordinate theme ⇐ codetta). Such a syntax-based understanding, however, obscures a different dialectical situation and form-functional scenario inherent in the notion of regression: the entire formal unit displays a form-functional conflict that regresses to its initial profile at a higher formal-hierarchical level—a case that is significant in two-dimensional sonata form (Vande Moortele 2009).

This paper recalibrates current accounts of form-functional becoming and oscillation in explicitly dialectical terms and postulates regression as a form-functional scenario drawing upon Heidegger's ontology (1927), a relation demonstrated via an analysis of Strauss's *Eine Alpensinfonie* (1915). I argue that while becoming and oscillation display respectively an Adornian negative dialectic (1966) and a Hegelian dialectic (1817), regression otherwise exhibits a local form-functional becoming or oscillation that is retrospectively reinterpreted as its original profile at an overarching level in two-dimensional sonata form, attesting to Heidegger's existential analytic of *Dasein*. Such a situation is exemplified through "Eintritt in den Wald," where the advent of a PAC forces regression and exposes the epistemological precedence of the subject. This formulation consequently leads to a taxonomy of form-functional transformation, which lays the foundation for a post-Romantic functional-transformational formal theory.

CANONS, VOICE, AND CONTOUR IN REICH (HARRISON)

Gretchen Horlacher (Indiana University), Chair

Rhythmic Qualities, Meter, and Reich's Cyclic Canons Jason Yust (Boston University)

Much of Steve Reich's music of the 1970s and '80s is based on cyclically-repeated rhythms in canon. This paper introduces a theory of rhythmic qualities, analogous to Ian Quinn's theory of harmonic qualities, to address questions about meter in these rhythms and to show the special significance of maximally even patterns to constructing them. Maximally even patterns play an important role in the theory of rhythmic qualities as prototypes. For instance, the "diatonic" rhythm that Reich uses in the last movement of his Sextet maximizes the fifth Fourier quality (f5). Because the total set of qualities represents a lossless transformation of the rhythm, this presence of f5 allows for the suppression of other qualities, which relate to conventional concepts of meter.

The rhythm that Reich uses most frequently, the *Clapping Music* rhythm, also has a prominent f5, but is not maximally even. Reich adds an additional onset so that this rhythm can also project f3 and f4 qualities, which relate to 3/2 and 12/8 meters. By manipulating canonic delays, then, Reich can create a sense of shifting meter. This idea of using rhythms that project not a single quality (simple maximally even rhythms) but combine features of two or three, is a common strategy, as can be seen in some interior movements where Reich uses cycles of irregular meters. The fourth movement of the Sextet, for instance, is based on a rhythm that combines ME(7,22) and ME(9,22) patterns and has a similar spectrum to the *Clapping Music* rhythm.

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, speaking, or composing—seem to have a problem with agency. In this paper, I revisit Edward T. Cone's notion of "the composer's voice," Seth Monahan's theory of anthropomorphic agent-classes in analytical discourse, and recent work on performer agency

by Rolfe Inge Godøy and Tami Gadir to explore how experimental music's problems with voice and with agency are variously amplified or silenced by analytical method, sound recording technology, and culturally-specific listening practices.

Post-1945, composers of experimental music sought alternatives to received conventions of personal expression and agency in the composition and performance of their musical works. In It's Gonna Rain (1965) and Come Out (1966), for example, Steve Reich claimed to break from these conventions by reconceptualizing musical sound as a product of recorded speech and a semi-autonomous compositional process. Through extensions to Monahan's meta-analytical model, I show how the composer's agential norms persisted in these tape works, and I suggest that this persistence is made especially evident by the voices of Reich's unwitting "performers," Brother Walter and Daniel Hamm. I argue that these tape works engender a hermeneutics of minimal music driven by the technomorphization of human performance rather than the anthropomorphization of perceived musical agents. This technomorphic hermeneutics is, however, contingent upon what Marie Thompson calls "white aurality," a set of unmarked listening practices and musical ontologies which conveniently obscure the voices and agents with which experimental music seems to have a problem.

"Repeat and Repeat Again": A Reexamination of Fuzzy Contour in Steve Reich's *The Desert Music*Kristen Wallentinsen (Rutgers University)

Steve Reich's *The Desert Music* employs a key aspect of Reich's compositional philosophy: melodic phasing. The phasing process places the theme against itself at various levels of metric displacement (Cohn 1992; Roeder 2003), creating regions of multilinear melodies that challenge listeners to understand melody in different ways. Contour plays a significant role in the perception of these melodic processes. Ian Quinn's (1997) analysis of fuzzy contour relations in *The Desert Music* provides quantitative evidence regarding the contour similarity of Reich's melodies, but does not address the complexity with which this melodic similarity is experienced in the context of Reich's phased musical fabric.

This paper expands upon Quinn's analysis, using a new model of fuzzy familial contour membership to analyze complex multilinear melodies that result from Reich's phasing technique. I model the emergent melodic

possibilities within the multilinear pattern by mapping the contour motions (ascent, descent, or plateau) of each melody in each passage onto a Contour Adjacency Grid that is framed on the total number of attack points in the passage. The resulting composite representation captures the probability of divergent contours as they occur throughout the passage, allowing for exploration of experiential possibilities afforded by the musical fabric.

These affordances suggest further connections with phenomenological and cognitive theories of multistability (Idhe 2012; Karpinski 2012). By examining relationships between melodies in terms of these multistable possibilities, I offer a more sensitive account of the contour relations listeners may perceive within the music, providing a better understanding of Reich's minimalist process.

FROM THE SOURCE (MCKINLEY)

Laura Emmery (Emory College), Chair

Shostakovich As Analyst

Ryan McCulloch (University of Michigan)

On October 12, 1950, Dmitri Shostakovich began a chorale sketch of his Prelude in A minor, the second prelude from the 24 Preludes and Fugues. The work was later reviewed in March 1951 by the Symphonic and Chamber Music subcommittee of the Composers' Union and was temporarily barred from publication. Even the work's harshest critics, however, could not detect a trace of contradiction or controversy within this prelude. Shostakovich's sketch of the prelude, however, reveals a number of voice-leading, reduction, and prolongation conundrums, suggesting that the harmony is more ambiguous than a cursory glance would suggest.

Shostakovich the analyst challenges several criteria of reduction, necessitating a few revisions in orthodox reduction practice. To begin with, the sketch employs an inconsistent number of voices. I contend that those instances in which Shostakovich reduced the texture from five to three voices are indicative of registral expansion and contraction within a phrase. Unlike orthodox reduction practice where register is of secondary importance, registral expansion and contraction are fundamental devices the composer used in this sketch. Furthermore, I reevaluate some ineffective criteria for determining chord tones motivated by the dissonant figuration in the score. While some dissonances are straight forward, such

as the dual-natured passing tone/neighbor tone in the first bar, many others are more ambiguous (Dolzhansky 1963). I provide two instances in which Shostakovich's reduction deviates from my own to suggest that chord tones can be established based on voice-leading parsimony and patterning of voicings in the context of the phrase.

Sketching and Imitating: Cage's Cheap Imitation and the Song Books

Jeff Perry (Louisiana State University)

John Cage the borrower presents a paradox: both reverential and seemingly arbitrary, his appropriation of the words and music of others (e.g. Satie, Thoreau, Joyce, Mozart, Schubert, Duchamp, McLuhan) seems a baffling mix of defacement and whimsy. We must examine his working methods to learn how—and why—he borrowed.

In Cheap Imitation (1969), Cage retains the rhythmic structure of Satie's Socrate (1918) but uses the I Ching to substitute new pitches for Satie's. This paper examines those among the 90 Solos for Voice in the Song Books (1970—"We connect Satie with Thoreau") that Cage composed using the "cheap imitation" process. Sketches of these "cheap imitation" Solos reveal that an interplay of subjectivity and rigor went into the composition of these works. Cage does not use his source materials as mere grist for his I Ching mill; for example, Thoreau's words and his reception of them are part of the Song Books. Far from rejecting all forms of subjectivity, Cage's compositional method incorporates his own response to his chosen "collaborators."

Scrutiny of his sketches shows how the *Song Books* instantiates this dialectic between chance and his love of those who influenced him. They illustrate tensions between chance and choice that hold significance for the way we talk about indeterminacy, for our reception of Cage's music, and for our investigations into the nature of musical borrowing and homage in general.

Beethoven Overexposed: From Source to Sketch to Autograph in Michael Finnissy's *The History of Photography in Sound* Richard Beaudoin (Dartmouth College)

The central role of transcription in the music of Michael Finnissy has been well documented. According to the composer, "Because I don't have a particular fetish any more for generating original material, I often, even in

pieces I don't acknowledge as transcriptions, take the material from somewhere else." To date, commentators have focused on the literary and political resonances of Finnissy's borrowing without dissecting his modes of transformation, specifically his alteration of tonal function.

This study draws on both the handwritten sketches and the autograph manuscript of Finnissy's 5½-hour solo piano work, *The History of Photography in Sound* (1995–2001). Two separate Beethoven borrowings illuminate Finnissy's transcriptive compositional process. Both excerpts appear in the section of the History entitled *Kapitalistisch Realisme* (*met Sizilianische Männerakte en Bachsche Nachdichtungen*) [Capitalist Realism (with Sicilian male nudes and Bachian paraphrases)].

Finnissy's transformative borrowing technique is analogous to the photographic process of "overexposure," whereby an excess of light creates a washed-out, undetailed image. Two examples of Beethoven borrowings from *Kapitalistisch Realisme* chart the process from source to sketch to autograph: one highlights Finnissy's favoring of inner voices over iconic melodies; another demonstrates his habit of "untying" the functional tonality of his sources, a method akin to the recently-documented borrowing techniques of Messiaen. Combining handwritten sketches and autograph manuscripts, this study details the precise mechanisms at work as Finnissy confronts, subsumes, and "overexposes" Beethoven's music.

METER AND PROJECTION IN SPECTRAL AND POST-SPECTRAL MUSIC (TAFT A)

Justin London (Carleton College), Chair

Nearly-Metric Spaces

Joseph R. Jakubowski (Harvard University)

Meter is often framed as a binary distinction: either music is metric, or it is not. Boulez's *Structures I* is not metric because it lacks the periodic rhythms and regular groupings that make Beethoven's Fifth Symphony so clearly metric. This distinction pervades analytical and psychological approaches to musical rhythm. In metric music, theorists analyze grouping and conflict while psychologists discuss entrainment and well-formedness rules. In non-metric contexts, theorists consider durational patterns and alternative temporalities, while psychologists ponder the limits of temporal discernment. Yet numerous edge cases complicate the issue. For instance, the music of Gérard Grisey sometimes references meter while simultaneously exhibiting meter-confounding conflicts. These rhythms, I

argue, are filtered through our propensity for entrainment and our associations with familiar meters in perception. Thus, this music occupies a liminal space—a *nearly-metric space*—between metric and non-metric experiences.

This paper proposes four types of nearly-metric spaces—partial, hollow, distorted, and sporadic meters—in a case study analysis of Grisey's *Vortex Temporum* I, II, III (1994–96). Building on treatments of meter as a temporal orientation (Ito 2013), a learned schema (London 2012), and a set of potential expectations (Hasty 1997), I argue that meter serves as an a priori for rhythmic perception in *Vortex Temporum*. Ultimately, I aim to bring the findings and methods of metric cognition and analysis, originally developed for tonal music, to bear on the complex rhythms of recent concert music and to add nuance to our distinction between metric and non-metric experiences.

Process Philosophy Overcoming Itself: Modeling Grisey's *Vortex Temporum* (1994–96)

Joshua Banks Mailman (Columbia University)

Both Gérard Grisey and his posthumous philosophical apologist Hugues Dufourt emphasize Grisey's innovative approach to temporality. Surprisingly, a processive model for analyzing Grisey's forms has not emerged. Theorists have shied away from modeling formal processes in Grisey's music perhaps because the appropriate modeling conflicts with Grisey's and Dufourt's ideological pronouncements as grounded in the anti-quantitative polemics of French process philosopher Henri Bergson. Yet, resisting or overcoming Bergson's, Grisey's, and Dufourt's limitations, to instead offer a mathematical modeling of Grisey's music, we achieve a more ecological understanding of its distinctive processive temporality and holistic character.

Grisey's Vortex Temporum presents a motif from Ravel's Daphnis et Chloé, developed through naturalistic interaction between difference and repetition, a conceptual pairing celebrated by Bergsonian philosopher Gilles Deleuze. The motif changes are modeled ("curve fitted") with basic mathematical equations also known for modeling such natural phenomena as circadian rhythms, respiration, climate cycles, sound, and hydrodynamics, including the spiral motion of vortices. Specifically: (1) The motif's shape is modeled as "harmonically" related sine wave oscillators, a smooth, subtly complex, naturalistic wave, in a two-dimensional plane: a twirling motion; (2) The motif's timings are modeled as a sum of sinewave oscillation,

linear trend, and random noise, relating to the fluidly semi-predictable teleology of these repetitions; (3) The motif's transpositions are modeled as an exponentially amplifying oscillator; this amplifying oscillator form is shared with Ligeti's Violin Concerto (Mailman 2016), composed only four years earlier. Both works exhibit a wavelike trend of increasing volatility, which can also be visualized as a spiral or vortex.

Process and Projection in Abrahamsen's Schnee

Noah Kahrs (Eastman School of Music)

Hans Abrahamsen's Schnee has become one of the few classic works of the early 21st century. Yet despite its similarity to American minimalism in its orientation towards process, its fine gradations of tuplets challenge many analytical tools. Although theories of rhythm and meter can be adapted by finding a greatest common denominator, the resultant quantum is imperceptibly small (24 subdivisions per eighth-note), confounding analytical applications.

In this paper, I argue for the relevance of orchestration and compositional process to the perception of metric projection. In particular, I present analyses of the first and last pairs of canons of *Schnee* in which I compare underlying compositional processes to the details of rhythm and orchestration at the musical surface, to establish the interconnectedness of these factors. In Canons 5a and 5b, different aspects of instrumentation separately highlight compositional aspects of pitch processes and perceptual aspects of rhythmic processes, justifying the relevance of orchestration to both perception and intent. By extending metric projection to encompass intervals with slight offsets, as in Lewin 1981, I show that in Canons 1a and 1b, orchestration highlights specific inter-onset-intervals (IOIs) through which one might understand other projected durations.

Beyond *Schnee*, this work suggests some more general observations on listening to music with a strong element of compositional process. Although perceiving basic precompositional structure is seldom the end-goal of either listening or analysis, it can provide a useful lens through which to interpret other aspects of hearing.

ANALYTICAL APPROACHES TO RACHMANINOFF (TAFT C)

Blair Johnston (Indiana University), Chair

This session explores the music of Sergei Rachmaninoff from a variety of theoretical and analytical perspectives. Rachmaninoff deserves special attention: Despite being loved by performers and the public, his music has been largely bypassed by analysts for decades. In the past roughly quarter-century, however, there has been a renewed interest in his work among English-language analysts. Of particular importance is Blair Johnston's (2009, 3) call to put an end to the habit of viewing Rachmaninoff as a traditionalist chained to outdated compositional methods. The function of our session is to further this emerging interest in Rachmaninoff's music, and thus help solidify its legitimacy as an object of music-theoretical inquiry. Incidentally, 2019 marks a century and a year after Rachmaninoff's permanent move to the United States in November 1918.

The session brings together three scholars who explore (1) various genres—piano, solo vocal, and choral; (2) different musical dimensions such as tonal structures, form, and counterpoint; and (3) a multiplicity of theoretical approaches, including the New Formenlehre and Russian theory contemporary to Rachmaninoff. "Rotational Form in Three of Rachmaninoff's Études-tableaux" explores novel approaches to form based on rotational principles, with an emphasis on aspects of ambiguity. "Disguised Cadences in Rachmaninoff's Songs" discusses the composer's experimentation with closure that plays on common-practice conventions without abandoning them entirely. "Horizontal-Shifting Counterpoint in Rachmaninoff' shows how the composer advanced Taneev's contrapuntal principles beyond the "strict" style to a new, post-Romantic context.

Rotational Form in Three of Rachmaninoff's Études-tableaux, op. 33

Stephen Gosden (University of North Florida)

The concept of rotational form that James Hepokoski, Warren Darcy, and others have developed over the past 25 years is among the central principles of the "new Formenlehre." One of the most important dimensions of rotational form is how the cyclical recurrence of an ordered series of thematic ideas may intersect with other approaches to formal organization. This includes the deployment of not just highly-conventionalized models such as sonata form, but also much simpler patterns that allow

for a more contextual use of the rotational principle. In this paper, I discuss three of Rachmaninoff's op. 33 *Études-tableaux* that are clear examples of such contextually-determined rotational structures: no. 5 (D minor), no. 8 (G minor), and no. 9 (C-sharp minor).

As many scholars have observed, Rachmaninoff's later compositions (especially from 1910 onward) reflect an increasingly complex and individualized approach to musical form. Thus, while his earlier collections of piano works such as the *Moments musicaux*, op. 16, and the Preludes, op. 23, feature relatively straightforward and clear-cut formal designs, his later collections pose much greater challenges when it comes to identifying the formal logic underlying each work. As I plan to show for the three works under consideration, focusing on the rotational organization of motivicthematic ideas offers a valuable starting point from which to understand how each one manifests a simple and familiar formal pattern: strophic form (AAA) in the case of 33/5, ternary form (ABA) in the case of 33/8, and bar form (AAB) in the case of 33/9.

Disguised Cadences in Rachmaninoff's Songs Ellen Bakulina (University of North Texas)

This paper explores cadential structures in Sergei Rachmaninoff's songs for solo voice and piano, with a special emphasis on op. 34 (first published in 1913). Recent years have witnessed a surge of interest to the cadence in tonal repertoires, mostly of the 18th century (Caplin 2004; Burstein 2014; Neuwirth and Bergé 2015; Harrison 2016); but cadences in late Romantic music remain less studied. Combining a form-functional and a linear-analytical (Schenkerian) approach, I show how Rachmaninoff obscures familiar cadential patterns inherited from the Classical tonal tradition.

My starting theoretical point is William Caplin's (1998 and 2004) conceptual distinction between the cadential function (an area of form), progression (a series of chords), and arrival (a single point in time). Rachmaninoff often uses standard cadential patterns in a straight-forward way, where Caplin's three categories comfortably and obviously coincide. And yet, one observes an increasing tendency towards experimentation in this regard. I show three specific forms that concealment of the cadential function can take: (1) a tonic pedal obscures the cadential progression, (2) the cadential progression migrates to a middleground level, and (3) established cadential progressions are completely discarded, and closure is achieved by melodic means (that is, a cadential arrival is present, but a

progressions is not). My analyses witness how a Schenkerian approach helps uncover underlying familiar structures hidden by idiosyncratic surfaces, while also showing Rachmaninoff's compositional evolution, ultimately leading toward novel approaches to closure.

Rachmaninoff, Taneev, and Horizontal-Shifting Counterpoint Simon Prosser (The Graduate Center, CUNY)

I examine compositional evidence of the influence of Sergei Taneev's theory of horizontal-shifting counterpoint on his student, Sergei Rachmaninoff, and develop an approach for composing horizontal-shifting counterpoint.

In his 1909 treatise *Podvizhnoi kontrapunkt strogogo pis'ma* (Shifting counterpoint in the strict style), Taneev theorized two broad categories of "shifting counterpoint": vertical-shifting counterpoint, more commonly known as invertible counterpoint, in which voices are shifted relative to each other in pitch space; and horizontal-shifting counterpoint, in which voices are shifted relative to each other in temporal space. While Taneev provided a thorough and systematic approach to composing vertical-shifting counterpoint, his treatment of horizontal-shifting counterpoint only provides a system for labeling the direction and time-point interval of the shift. And while the practical compositional applications of vertical-shifting (i.e., invertible) counterpoint are already well established (and were so long before Taneev), it remains to be seen how the more obscure technique of horizontal-shifting counterpoint has any relevance to compositional practice.

I will address both of these issues by first looking at evidence of the influence of Taneev's theories on one of his students, Sergei Rachmaninoff, in two compositions: Rachmaninoff's early choral work *Deus meus*, and one of his mature piano works, the *Étude-tableau* op. 33, no. 4 in D minor. I will then theorize a method for composing horizontal-shifting counterpoint in strict species counterpoint, with applications to the related techniques of canon and stretto.

Index

Adams, George	25, 153	Burns, Chelsea	17, 122
Allen, Marvin Wayne	12, 97, 100	Burns, Lori	4, 64
Alvarado, Ariel	12, 97, 100	Burstein, L. Poundie	20, 136
Attas, Robin	8, 12, 80, 99	Burton, Deborah	19, 130
Baker, Ben	3, 53	Byrne, David	3, 52
Baker, Michael	15, 113	Byros, Vasili	13, 104
Bakker, Sara	7, 76	Carter-Ényì, Quintina	12, 97, 100
Bakulina, Ellen	26, 161	Chau, Dustin	2, 51
Balasko, Alexander	15, 112	Christensen, Kelly	2, 49
Barna, Alyssa	21, 139	Chung, Andrew	20, 137
Bashwiner, David	14, 110	Clark, Suzannah	10, 95
Bauer, Amy	9, 87	Clarke, Michael	19, 133
Beaudoin, Richard	25, 156	Cohen, David	14, 108
Belcher, Owen	4, 63	Cohn, Richard	16, 18, 117, 12
Bell, Matthew	13, 102	Cook, Robert	6, 73
Benadon, Fernando	18, 126	Coury-Hall, M.A.	8, 83
Bennett, James N.	13, 105	Covach, John	16, 115
Bennett, William Weston	24, 146	Cramer, Alfred	6, 10, 72, 91
Biamonte, Nicole	16, 116	Cuthbert, Michael	7
Bilidas, Stefanie	16, 119	Danielsen, Anne	18, 127
Blättler, Damian	14, 106	Dauer, Tysen	2, 47
Blessinger, Martin	20, 137	Davis, Andrew	15, 113
Blim, Dan	23, 144	De Souza, Jonathan	6, 70
Bourne, Janet	3, 57	DeVlieger, Dana	19, 128
Boyd, Clifton	3, 54	DeVries, Joshua	6, 71
Boyle, Antares	3, 54	Doll, Christopher	24, 146
Brover-Lubovsky, Bella	14, 108	Donaldson, James	9, 89
Buchler, Michael	23, 144	Douthitt, Christopher	5, 67
Buhler, James	1	Dufeu, Frédéric	19, 133
Burke, Kevin R.	5, 66	Duguay, Michèle	6, 70
	1.6	2	

Index

Duinker, Ben	10, 94	Johnston, Blair	26, 160
Ellis, Sarah	9, 90	Jones, Molly	2, 48
Emmery, Laura	25, 155	Kahrs, Noah	26, 159
Endrinal, Christopher	20, 137	Kim, Catrina	15, 113
Everett, Yayoi Uno	9, 22, 85, 142	Kleppinger, Stanley V.	9, 90
Ewell, Philip	22, 141	Klopfenstein, Joshua	14, 108
Ferrandino, Matthew E.	4, 64	Klorman, Edward	16, 116
Forrest, David	24, 147	Komaniecki, Robert	20, 137
Fulton, Anna	20, 138	Lai, Hei Yeung John	10, 95
Garza, Jr., Jose Manuel	24, 147	Lavacek, Justin	5, 69
Genchel, Benjamin	2, 48	Lavengood, Megan	10, 93
Gersh, Brad	10, 92	Lawrence, John Y.	19, 131
Goldman, Andrew	3, 58	Lee, Gavin	6, 74
Gosden, Stephen	26, 160	Lee, Ji Yeon	19, 130
Grant, Aaron	11, 96	Lee, Kelvin H.F.	25, 152
Grant, Roger Mathew	16, 117	Lehman, Frank	5, 65
Grasso, Julianne	21, 140	Leo, Katherine M.	19, 129
Greenberg, Yoel	8, 78	Leong, Daphne	7
Guez, Jonathan	24, 150	Lester, Joel	13, 103
Harrison, Daniel	2, 51	Lochhead, Judith	2, 46
Hartt, Jared	5, 68	London, Justin	26, 157
Hellmuth Margulis, Elizabeth	4, 59	Louden, Sarah	14, 110
Helms, Joanna	2, 46	Lucas, Olivia	14, 111
Hisama, Ellie M.	22, 143	Mailman, Joshua Banks	26, 158
Horlacher, Gretchen	25, 153	Malawey, Victoria	5, 66
Hottle, Rachel	8, 81	Malilay White, Andrew	13, 105
Howes, Samuel	7, 76	Malin, Yonatan	24, 148
Huron, David	19, 132	Maliniak, Omer	8, 78
Iker, Sarah	24, 149	Martin, Nathan	20, 135
Jakubowski, Joseph R.	26, 157	Marvin, Elizabeth West	22, 141
Jennings, Tyler	12, 97, 100	Mavromatis, Panayotis	3, 56

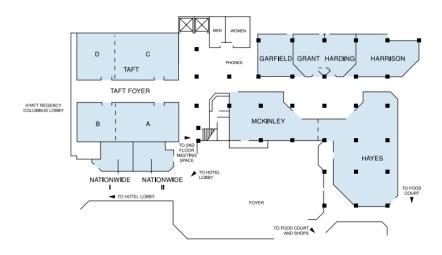
McCandless, Greg	8, 79	Prosser, Simon	26, 162
McClelland, Ryan	9, 90	Pukinskis, Katherine	17, 124
McCulloch, Ryan	25, 155	Rabinovitch, Gilad	3, 55, 57
Millares Thomson, Alexis	10, 91	Ransom, Elaine	12, 97, 100
Miller, Brian	19, 128	Rao, Nancy Yunhwa	4, 12, 59, 99
Miller, Paul	8, 84	Reef, John S.	4, 62
Mills, Joshua W.	10, 91	Reese, Alan	6, 75
Mirka, Danuta	16, 119	Remeš, Derek	13, 103
Mitchell, Nathaniel	16, 117	Reymore, Lindsey	7,77
Momii, Toru	4, 60	Riordan, Brian	8, 84
Morrison, Landon	2, 49	Ripley, Angela	8, 81
Moseley, Brian	9, 86	Roeder, John	9, 12, 88, 98
Mukherji, Somangshu	4, 12, 61, 97	Rogers, Lynne	24, 148
Murphy, Scott	7, 76	Rucker, Julian	12, 97, 100
Mutch, Caleb	4, 61	Rudman, Jessica	6, 73
Narum, Jessica	8, 84	Rusch, René	11, 96
Neal, Jocelyn	13, 101	Russell, September	14, 107
Nicely, Tiffany	16, 118	Sánchez-Kisielewska, Olga	17, 120
Nobile, Drew	16, 115	Savery, Richard	2, 48
Nolan, Catherine	9, 90	Scherzinger, Martin	19, 128
O'Hara, William	17, 21, 125, 139	Schmalfeldt, Janet	24, 150
Ohriner, Mitchell	10, 18, 94, 126	Sears, David	24, 147
Osborn, Brad	4, 64	Shaftel, Matthew	9, 90
Osborne, Kenton	15, 114	Shanahan, Daniel	6, 71
Patterson, Jason	24, 145	Sheehy, August A.	20, 135
Peck, Calvin	19, 131	Sherrill, Paul	19, 132
Perry, Jeff	25, 156	Short, Rachel	13, 101
Pierson, Marcelle	17, 125	Simpson-Litke, Rebecca	13, 102
Piilonen, Miriam	14, 109	Smith, Eron	16, 119
Polk, Donovan	12, 97, 100	Smith, Jason	2, 48
Posen, Thomas William	23, 144	Smith, Jay	8, 82

Index

Smucker, Peter	17, 123
Snodgrass, Jennifer	17, 121
Stephan-Robinson, Anna	7, 78
Stevens, Bryan	20, 135
Stevens, Daniel B.	4, 61
Stevenson, Kha'Zir	12, 97, 100
Stoecker, Philip	9, 86
Stover, Christopher	3, 53
Straus, Joseph	22, 142
Sullivan, James	20, 134
Takahashi, Keitaro	19, 133
Tan, Ivan	16, 116
Tatar, Jeremy	10, 93
Taycher, Ryan	5, 68
van Geest, William	17, 121, 122
Venn, Edward	9, 88
Venturino, Stephanie	3, 52
Viggers, Dan	24, 149
Vuust, Peter	18, 127
Wallentinsen, Kristen	25, 154
Ware, Evan	21, 139
Watkins, Andrew	8, 84
Wells, Robert L.	6, 74
Wheeldon, Marianne	13, 105
White, Ridge	12, 97, 100
Willis, Laurence Sinclair	24, 151
Wissner, Reba	2, 47
Yust, Jason	25, 153
Zinser, Zachary	5, 68



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We respectfully acknowledge that this conference is taking place in an area that was home to the indigenous Shawnee, and later the Miami, Delaware, Seneca, Cayuga, Ottawa, and Wyandot, prior to their forceful removal in the early to mid-19th century.



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