Tonal Structures in Early Music at Twenty

Sponsored by the Early Music Analysis Interest Group of the Society for Music Theory
June 2–3, 2018 | Brandeis University, Waltham, Massachusetts

Saturday, June 2

Morning Sessions

Registration, 8:15–9:00

9:00–10:45
Transposition and Modulation
Joel Lester (CUNY Graduate Center, Emeritus), Chair

> Joseph Sargent (University of Alabama)
> Tonal Varietas and the Octo Tonorum Magnificat

> Gregory Barnett (Rice University)
> Guido's Gamut and Tonal Style of the Early *Seicento*

> Jessie Ann Owens (University of California Davis)
> Beyond Mode: Theorizing "Key" in the Music of Cipriano de Rore

11:00–12:45
Histories of Tonalities
Eric Chafe (Brandeis University), Chair

> Kyle Adams (Indiana University)
> Gradus ad Chromaticismum: Three Stages in the Development of Chromaticism

> Christopher Brody (University of Louisville)
> What are Solar and Polar Tonality?

> Ian Quinn (Yale University)
> A New Game of Tones: Scenes from an Imaginary History of Mode in the West

Lunch, 12:45–2:30

Afternoon Sessions

2:30–4:15
Analysis and Performance
Michael Dodds (University of North Carolina School of the Arts), Chair

> Peter Urquhart (University of New Hampshire)
> A Revision of the Rules Described as Musica Ficta for Franco-Flemish Music

> David Geary (Indiana University)
> Analyzing Josquin Canons Through Improvisation

> Thérèse de Goede (Conservatorium van Amsterdam)
> Continuo Realization of Frescobaldi's Bass Canzonas

4:30–6:15
Contrapuntal Strategies and Large-Scale Organization
YouYoung Kang (Scripps College), Chair

Stephen Komer (Indiana University)
An Examination of Mode in Josquin's *Missa L'homme armé super voces musicales*, Credo

Loren Ludwig (ACRONYM)
"Maintaining a Point": [m]inimalist Strategies in Sixteenth-Century Polyphony

Cella Westray (Northwestern University)
Composing by Fantasy: "Written-Out Improvisations" and their Stylistic Implications in Seventeenth-Century Consort Fantasias

Banquet, 7:00 pm
Copper House Tavern
380 Winter St, Waltham, MA 02451(attached to the Best Western)

Sunday, June 3

Morning Session

9:00–11:00
Polyphony in the Late Middle Ages
Karen Cook (University of Hartford), Chair

John Koslovsky (Conservatorium van Amsterdam / Utrecht University)
Tonal Structures in Notre Dame Polyphony: The Case of Felix Salzer

Ryan Taycher (Indiana University)
Contrapunctus Structure and Elaborative Figurations in the Ars Nova Motet

Carolann Buff (Indiana University)
Tenor, Contratenor, Solus Tenor: Implications for Three- and Four-Voice Motets at the End of the Middle Ages

Roundtable Discussion, 11:15–12:30
Panelists: Cristle Collins Judd (Sarah Lawrence College), Michael Dodds (University of North Carolina School of the Arts), Megan Kaes Long (Oberlin College Conservatory of Music), Jessie Ann Owens (University of California Davis, Emeritus), Timothy Steele (Calvin College), Frans Wiering (Utrecht University)

Abstracts

Transposition and Modulation
Joel Lester (CUNY Graduate Center, Emeritus), Chair

Joseph Sargent (University of Alabama)
Tonal *Varietas* and the *Octo Tonorum* Magnificat

The Renaissance eight-tone Magnificat collection is often described as a locus for variation. As a setting of Scriptural text in which each verse forms a separate unit based on a common canticle tone, the polyphonic Magnificat is naturally inclined toward progressive variation of musical material. To date, this concept of *varietas* has been understood primarily in terms of melody. The Magnificat's canticle tone, a simple recitational chant enlivened only by brief formulaic gestures at certain structural points, offers ample opportunities for variation in terms of added melodic flourishes, distribution in different voice parts, shifts in note values and mensuration, and employment of learned devices such as canon.

This focus on melody, however, overlooks how variety was also applied to tonal structures. Most polyphonic Magnificats are tonal (rather than modal) compositions, in that their pitch organizations are rooted in a canticle tone rather than octave species of fourths and fifths. Tonal thinking is particularly essential to *octo tonorum* collections, which encompass separate Magnificat settings for all eight canticle tones, each with its own central pitches. This system offers composers a ready-made laboratory in which to explore variations in such tonal features as referential pitches, strength and quality of cadential motion, harmonic stability, and relationships between tonal centers.

The Magnificats of Cristóbal de Morales (c.1500-53) offer a case study of how Renaissance composers applied variations to tonal structures. Analysis of Morales's music reveals several practices that show signs of what might today be called tonal thinking: (1) emphasizing a tone's customary pitch centers with medial/final cadences, but also cultivating versatility by stressing pitches outside this realm on select verses; (2) producing cadential motion of greater or lesser strength to reinforce markers of sectional form; (3) placing greater or lesser emphasis on harmonic motion (via homophonic presentation of the canticle tone melody as opposed to imitative polyphony); (4) manipulating the canticle tone with greater or lesser freedom, in a manner that weakens or strengthens the piece's tonal orientation; and (5) using transposition to offer different pitch centers as focal points.

Gregory Barnett (Rice University)
Guido's Gamut and Tonal Style of the Early *Seicento*

This paper explores the links between tonal style around the turn of the seventeenth century and the Guidonian pitch aggregates of cantus mollis and cantus durus. The aim is, first, to offer an approach that mitigates the complexities and anachronisms of recent "modal-hexachordal" analyses (e.g., Chafe 1992; Weaver 2015), and second, to throw the distinctively fluid idiom of this period into relief with respect to both major/minor tonality of the eighteenth century and the precepts of modal theory.   The connection between the Guidonian pedagogy of pitch relations and early-*seicento* tonal style is investigated in three compositions: Peri's "Se tu parti da me" (1609); Frescobaldi's Recercar sopra mi, re, fa, mi (1615); and Rovetta's "Memento Domine" (1639). The collections in which these pieces are found use just a few combinations

of final and ♭ or ♮ signature (external tonal features), but within each piece the tonal style shows flexibility with respect to where cadences occur relative to the final and what kinds of cadences are used (internal features).   In these pieces, the combination of final and signature lays out a field of flatward- or sharpward-ranging possibilities that are handled differently by each composer: while Rovetta works consistently among sharpward-ranging points of tonal focus suggested by a G-final and ♮-signature (G ♮), Frescobaldi (A ♭) plays on the possibilities for tonal ambiguity, and Peri (A ♮) contradicts our expectations of tonal motion for text-expressive purposes. Further examples of a Handel aria and a Bach fugue show the consequences of a post-Guidonian, transposition-heavy tonal practice: while the early seventeenth-century repertory demonstrates little external variety but remarkable internal flexibility, the later practice—with its variety of keys but stereotyped functional-harmonic relations—reverses this (cf. Dahlhaus 1968). A final pair of examples, Andrea Gabrieli's Toccata del Decimo Tuono (before 1585) and Murschhauser's Praeambulum Decimi Toni (1707), exhibits the same change in tonal style in spite of their common designation of Mode 10.   The findings here reveal not only the underlying relationship between the seventeenth- and eighteenth-century practices as tonal, but also how contemporary theorists interpreted the evolving tonal style of their time according to traditional modal precepts.

Jessie Ann Owens (University of California Davis, Emeritus)
Beyond Mode: Theorizing "Key" in the Music of Cipriano de Rore

Gregory Barnett, in an insightful essay on key signatures, distinguishes between what he calls "pitch aggregates"—the collections typically defined by the two cantus, cantus durus and cantus mollis—and "tonal focus." My paper uses his framework to explore certain features of the music of Cipriano de Rore that seem to challenge prevailing tonal practices. I am interested in pieces where the text demands or invites a response that might resemble shifts in key found in later music. In particular, I would like to revisit Harold Powers's study *Quando signor lasciaste* to see whether "Monteverdi's model for a multimodal madrigal" might provide an analytic framework for madrigals like *Da le belle contrade* and other compositions that portray interactions between distinct characters.

<u>**Histories of Tonalities**</u>
Eric Chafe (Brandeis University), Chair

Kyle Adams (Indiana University)
Gradus ad Chromaticismum: Three Stages in the Development of Chromaticism

This presentation will trace the development of the concept of "chromatic" from classical antiquity to the eighteenth century. While it is tempting to imagine that the meaning of "chromatic" simply transformed over several hundred years, the reality is more complicated: over time the dominant conception of musical space came to include different tones at the same location in the scale, and the chromatic genus provided a convenient intellectual scaffolding for accommodating those tones. I will outline the three main conceptual changes that took place in order for the term to adopt its current meaning:

1. Beginning in antiquity, the synemmenon tetrachord generated different tones at the same functional location and assigned different functions to two

of the existing tones.

2. Later, musica ficta opened up the possibility for one littera of the gamut to signify different pitches.

3. By the mid-sixteenth century, Zarlino and others used mixture of the diatonic and chromatic genera as a rationale for music that frequently employed consecutive semitones, and therefore also employed many pitches with accidentals.

My presentation will outline the transformation from "chromatic" signifying a separate genre to "chromatic" signifying a modification of a diatonic system. I will argue that this transformation resulted from the intellectual change in conception of musical space from a single set of moveable tones to a complex collection that could accommodate multiple forms of the same tone.

Christopher Brody (University of Louisville)
What are Solar and Polar Tonality?

Among the many vital contributions of Leonard Ratner's 1980 treatise *Classic Music* are his distinction between *solar* and *polar* tonal schemes for eighteenth-century music and his identification of the former with Baroque genres and the latter with the newer genres of midcentury and later. Solar schemes are those that move through closely-related keys without special preference for any of them, while polar schemes are those built around a fundamental tonic–dominant opposition, relegating any additional keys used to a tertiary status. Yet the distinction itself remains under-theorized, a bare stereotype, leaving questions such as: (1) At what levels of musical ontology (the work, the repertoire) does it operate? (2) How sharp is the distinction in musical practice? and (3) How did one give way to the other over the course of the eighteenth century? In response, this paper develops two related claims.   First, the solar–polar distinction exaggerates the dominant's supposedly lesser role in some Baroque genres. Using data from Baroque concertos, chorales, and binary dances, I show that the dominant had a unique role in large-scale tonal structure even in the most overtly "solar" repertoires, as the most frequently used secondary key and by far the secondary key most likely to appear first. In this sense, the solar–polar distinction is one of degree rather than of kind.   Second, solarity and polarity are contrasting approaches to the *temporality* of motion through tonal space, with a highly suggestive connection to the trajectory of form in eighteenth-century music. While solar works move through nontonic keys at a variable rate, polar works confine tertiary keys to generically constrained (relatively brief) formal timespans: development, contrasting middle, "X section." The implied evolutionary path sees tonality and form move in tandem: the larger (polar) forms of the late eighteenth century developed *not* from the larger (solar) forms of the Baroque, but rather from earlier small forms, the Baroque's most "polar." As these small forms expanded in scope, they retained the relative focus on tonic–dominant polarity—and the rigidity of this relationship within formal structures—leaving solarity, by century's end, noticeably archaic.

Ian Quinn (Yale University)
A New Game of Tones: Scenes from an Imaginary History of Mode in the West

European staff notation has changed radically over its longue durée. Though it began as an evolutionary development in the advance of tablature for the voice, it quickly lost that function and became a powerful regulative technology. What was at first a tool for

easy sight reading has by our time become something very different: the staff has been given many tasks beyond those it was designed for, most crucially the temporal coordination of polyphony and the notation of absolute pitch, and adapted to ever-increasing demands for precision in both domains. In the process, tonal structures that facilitate musical conceptualization, particularly those related to mode, were quickly subsumed beneath the musical surface.

This talk sketches an alternative evolutionary path that early staff notation and modal theory might have taken if their priorities had been otherwise: voices over instruments, relative pitch over absolute, and clarity of structure over precision of measurement. I will introduce this speculative notation by leading participants through a series of brief rule-based solmization and improvisation exercises known as canons of mode. I will demonstrate the notation's utility for executing a related shift in priority from modes (understood as institutionally contingent theoretical categories) to what Harold Powers called tonalities (understood as environmentally contingent cognitive categories) by presenting transcriptions of monophonic and polyphonic with clear tonalities but distant relationships to modal classification.

Analysis and Performance
Michael Dodds (University of North Carolina School of the Arts), Chair

Peter Urquhart (University of New Hampshire)
A Revision of the Rules Described as Musica Ficta for Franco-Flemish Music

The rule of "closest approach" or "propinquity" is the theoretical basis of our understanding of the practice of adding accidentals to make cadences in Renaissance music. The rule originated in the late 13th century, and its application in the 14th century remains a question for scholars and performers. But in the 15th and 16th centuries, it was clearly meant to be applied at cadences, and cadences alone according to contemporary theorists. Since there are rather few sharp accidentals to be found at cadences during this period, cadential inflection was accomplished through performers' accidentals. In the 14th and early 15th centuries, sharp accidentals were used explicitly at cadences, but that practice fell away by the middle of the 15th century. Instead, the signals alerting singers to inflect at cadences became nested in the contrapuntal form of the cadence itself, which settled into a consistent and predictable form.

Since cadences appear largely without explicit signs c. 1500, propinquity has been assumed to be a matter of choice by performers. Questions about that choice have been a constant issue for 20th century musicology; practice in most modern editions coalesced around the view that inflections would have taken place *unless* other lines surrounding the cadencing voices interfered. In this way, the priority of the *mi contra fa* prohibition was maintained. However, my study of a thousand motets proves that cadence inflection was assumed by composers regardless of interference from other lines, and that composers intentionally created that interference to flag cadences. Cadential cross- relations are widely observable in music in five- and six-voice textures, and even in textures of fewer lines at times (Ex. A). But these observations challenge the *mi contra fa* rule, already weakened by certain logical difficulties in application, and by comments of theorists from Tinctoris to Zarlino.

Statistics generated by the survey of a thousand motets for five or six voices point to an increase in interest in the cadential cross-relation after Josquin, particularly among composers from the North, whereas the opposite agenda is observable in those

composers whose attention was drawn to Italy (Ex. B). Four Franco-Flemish progenitors of the Italian madrigal are among the latter, so the future international style, exported by composers and theorists such as Palestrina and Zarlino, was predicted by the divide in practice between North and South. Among the early Franco-Flemish madrigal composers is Adrian Willaert, whose music shows a chronological development related to the divide, moving from engagement with cross-relations towards fastidious avoidance of simultaneous clashes. The Northern style continued among composers from Spain and England, so much so that the cadential cross-relation was accepted as an English usage and referred to as the "English cadence," celebrated in music as late as Purcell. However, the connection of the practice to the central Franco-Flemish tradition was lost, resulting in a continuous editorial tradition in the 19th and 20th centuries that chose to ignore or suppress cross-relation in modern editions of music before 1600.

David Geary (Indiana University)
Analyzing Josquin Canons Through Improvisation

Despite a renewed interest in early music within the theory community, analyzing this repertoire remains a challenge. In short, our methodologies lack the comprehensive explanatory power equivalent to tools associated with later centuries. A fertile area of research, though, is studying the working process of Renaissance musicians. Peter Schubert, Julie Cumming, and Philippe Canguilhem have verified that improvising counterpoint was more common amongst fifteenth- and sixteenth-century musicians than previously recognized. Taking their work as a starting point, my research is more explicitly analytical. A survey of duet canons in mass movements by Josquin confirms that composed Renaissance counterpoint closely parallels the rules for improvising *stretto fuga*. However, adopting an improvisation-based analytical model also reveals points of divergence between the two musical products, where notated works step beyond strict adherence to the improvisatory techniques.

After reviewing the rules for improvising two-voice canons, I present three analytical theses that are supported by musical examples: the *strong-beat preference rule*, *structural rest*, and *structural dissonance*. Following a culminating analysis of the duet canon in Josquin's "Sanctus" from his *Missa Hercules Dux Ferrarie*, I conclude by comparing the role of structure in this style and its treatment in repertoires from more recent centuries.

Thérèse de Goede (Conservatorium van Amsterdam)
Continuo Realization of Frescobaldi's Bass Canzonas

While the subject of eighteenth-century continuo playing has been rather well researched, seventeenth- century continuo practice is still open to many fundamental questions, for scholars as well as for performers. The realization of early seventeenth-century bass lines, many of which lack continuo figures, is problematic because of the uncertainty about the harmonies intended by the composer. This holds even more so for works for solo bass and continuo, such as the canzonas for a solo bass instrument and b.c. by Girolamo Frescobaldi. Not only are they practically unfigured, but the solo bass is often in unison with the continuo bass, especially in slow sections, virtually resembling *partimenti*. For the realization of these basses, as well as for the realization of unfigured bass in general, continuo players often rely on their knowledge of tonal harmony (the basis of their theoretical training) or on the Rule of the Octave. However, an application of these principles to an early 17th-century continuo accompaniment will result in something not quite resembling the harmonic language

of this period, let alone that of an individual composer.

The continuo treatises of Frescobaldi's time mainly deal with the basics of harmony and contain little information about playing style. This is probably one of the reasons that the earliest extant treatises (Agazzari-1607; Bianciardi-1607; Banchieri-1611; Sabbatini-1628) have generally been neglected. Yet, one of them, Francesco Bianciardi's *Breve regola per imparar' a sonare sopra il basso* (1607) does provide important information about voice leading typical for that period. Even so, this source, too, has been dismissed by both performers and scholars because of the many exceptions to Bianciardi's rules in contemporary compositions. What seems not to have been recognized is that these rules are a conversion of the rules for interval regulation given in practically all counterpoint treatises, from the early fifteenth century to at least as late as Banchieri's *Cartella musicale* (1614), and that some of these rules have been applied by composers until far into the seventeenth century.

If one aims to create continuo realizations which resemble the musical language of Frescobaldi and his contemporaries, comparative analysis of the early continuo primers, counterpoint treatises, and compositons (in particular Frescobaldi's own music), is indispensable. During my presentation I will demonstrate this with examples of possible realizations of Frescobaldi's *Canzon prima* (1634).

Contrapuntal Strategies and Large-Scale Organization
YouYoung Kang (Scripps College), Chair

Stephen Komer (Indiana University)
An Examination of Mode in Josquin's *Missa L'homme armé super voces musicales*, Credo

Renaissance modal theory has often been regarded as impractical for modern analysts and is frequently viewed as a sort of untouchable historical artifact in the history of music theory. Recently, Kyle Adams (2012) and Daniele Sabaino and Marco Mangani (2014) have reopened the discussion of Renaissance modality and its explanatory capabilities for musical investigation. This paper will use the Credo from Josquin's *Missa L'homme armé super voces musicales* to first exemplify some of the primary issues associated with applying modal theory, and then to demonstrate how such issues can be used advantageously through analysis. *Super voces musicales* is unique in that its "L'homme armé" cantus firmus is successively transposed between movements to each pitch of the natural hexachord, while maintaining a cadential layout that emphasizes the pitch D. Thus, a modal reading focused on the tenor cantus firmus directly conflicts with a modal reading focused on cadences. Using some common modal attributes – tenor, voice ranges, and cadential layout – I will begin to demonstrate how such conflicts can reconcile themselves through modal analysis rather than alienate each other through modal classification.

Loren Ludwig (ACRONYM)
"Maintaining a Point": [m]inimalist Strategies in Sixteenth-Century Polyphony

Though Minimalist music typically describes a compositional idiom and ideology associated with the mid-twentieth-century, many of the features that lend Minimalist (uppercase M) compositions their distinctive sound—obsessive repetition of melodic cells, diatonicism, slow, uniform harmonic rhythm, the accretion of simple gestures in individual voices into a complex polyphonic and polyrhythmic texture—appear in the

compositional vocabularies of sixteenth- century composers and theorists. The repetition of melodic cells, for example, described by English theorists as "maintaining a point" and by Zarlino as composing "*con obbligo*," has not been fully appreciated for its generative and aesthetic importance in sixteenth-century polyphony, where it proliferates.

This paper explores two minimalist (lowercase m) procedures, "maintaining a point" and rhythmic serialism (lowercase s), in the works of a cohort of Elizabethan composers that include Thomas Morley, William Byrd, Alfonso Ferrabosco II, William Bathe, Elway Bevin, and Picforth. "Maintaining a point," a technique discussed in some detail by Zarlino, Morley, Bathe, and Bevin, entails numerous repetitions of a short succession of pitches in one voice of a polyphonic texture, often accompanied by free counterpoint in the remaining voices. Rhythmic serialism (used by Picforth, Byrd, Morley and others) allows each voice of a polyphonic passage to use one—and only one—rhythmic value (Picforth's five-part *In nomine* in Gb Bl Add. 31390, in which the treble proceeds exclusively in minims, the mean exclusively in dotted minims, the alto exclusively in semibreves, etc., provides an iconic example).

I develop two lines of argument. First, I identify a few analytical implications of the widespread use of minimalist techniques to shape the tonal structures of Elizabethan polyphony. Then, I consider what such procedures might tell us about contemporaneous tensions between emergent *seconda pratica* ideas about music as subordinate to words versus the simultaneous embrace of abstract and formal contrapuntal possibilities.

Cella Westray (Northwestern University)
Composing by Fantasy: "Written-Out Improvisations" and Their Stylistic Implications in Seventeenth-Century Consort Fantasias

The seventeenth-century consort fantasia occupies a paradoxical space between conservative and progressive compositional practices. The genre underwent a revival and unique transformation beginning in the early decades of the seventeenth century, when a new generation of English composers consolidated older continental practices and inflected them with the more modern influences of basso continuo theory imported from Italy. These English fantasias, because of their frequent reliance upon imitative techniques, such as stretto canons, and upon sequences that were conceived, for the first time, from the bass, offer a unique window into the transitional history of stock contrapuntal patterns throughout the early Baroque. Although common sequential and canonic patterns were already widely in use in the sixteenth century as pedagogical devices for improvising and composing counterpoint, their manipulation in seventeenth-century consort fantasia literature is more stereotyped and repetitive. The fantasia style, although varied, also reflects theorists' recommendations for composing outer-voice frameworks in sequence and then diminuting them with what are perhaps best contrapuntally justified as written-out improvisations. These improvisational procedures therefore anticipate later Baroque sequential models, albeit that the earlier seventeenth-century procedures rely not on a theory of scale degrees but rather on contextually-memorized responses to particular situations. This can be conceptually explained by the fact that *fantasia* was defined more broadly as a psychological concept underpinned by its theoretical connection to a specific physiological *locus* in the mind, and associated in particular with the memorization and recitation of imitative points or passages for rhetorical effect.

Polyphony in the Late Middle Ages
Karen Cook (University of Hartford), Chair

John Koslovsky (Conservatorium van Amsterdam / Utrecht University)
Tonal Structures in Notre Dame Polyphony: The Case of Felix Salzer

Throughout his career as a scholar and teacher, Felix Salzer (1904-1986) grappled with a single question: what, he asked, was the essence of polyphony in Western music? Though today we would view such a question as wholly misguided, one can only marvel at the intensity of Salzer's efforts to uncover hierarchical voice-leading procedures over a vast repertoire, which he encapsulated in oft-repeated catchphrases like "structural hearing," "directed motion," "tonal coherence," and the like. In no other music of the pre-common-practice era was he as committed to discovering such voice-leading procedures as in the music of the late-twelfth and early-thirteenth centuries, the so-called "Notre Dame" school. And, far from upholding a single and unchanging analytical position, Salzer's work in this area underwent considerable revision during his lifetime: in his engagement with sources, in his adaptation of Schenkerian analytical methodology, in his historiographical outlook, and in his value judgment of the music vis-à-vis that of later epochs.

The paper will first outline the development of Salzer's thoughts on Notre Dame polyphony and the various scholarly contexts surrounding it: from his 1935 book, *Sinn und Wesen der abendländischen Mehrstimmigkeit*; to his 1952 book, *Structural Hearing*; to an extended 1967 article, "Tonality in Early Medieval Polyphony"; and finally to an unpublished monograph typescript from the mid-1960s, *Tonal Coherence in Historical Perspective*, which contains some sixty separate analyses of Notre Dame polyphony. The paper will then examine the organum triplum "Alleluia Nativitas," attributed to Pérotin and analyzed by Salzer on three separate occasions (in 1935, 1952, and ca. 1965). While detailing the technical aspects of Salzer's analyses and laying bare the contingencies of his approach, the paper will propose alternative sketches for select passages, and at the same time incorporate research on memorization in Notre Dame polyphony (as developed by Berger 2005). In this way, the analysis will maintain a sensitivity to the relationship between oral and written practices in the Middle Ages, and it will seek to add a more dynamic dimension to the way we approach voice-leading structures in medieval polyphony.

Ryan Taycher (Indiana University)
Contrapunctus Structure and Elaborative Figurations in the Ars Nova Motet

The earliest *contrapunctus* treatises from the fourteenth century teach a compositional process in which one produces a note-against-note structural framework against a given tenor, then ornaments this framework to produce diminished counterpoint. Some of these treatises provide a series of examples of diminished counterpoint, but the process of elaboration is never explicitly described. However, by carefully analyzing the examples, we can observe the systematic process of ornamentation conveyed in these treatises to create elaborative figures. I will then present examples from contemporaneous motets by Vitry and Machaut in which we can observe many of these same elaborative figures, which function as stock patterns one could utilize in elaborating the *contrapunctus* structure. By understanding this compositional process and identifying these elaborative figurations in our analysis, we are better able to discern the underlying tonal structures operative in *Ars nova* motets.

Carolann Buff (Indiana University)
Tenor, Contratenor, Solus Tenor: Implications for Three- and Four-Voice Motets at the End of the Middle Ages

In the early decades of the 14th century, the basic structural model of the motet was in a three-voice arrangement with a borrowed *cantus firmus* as the foundation of the work. By the mid-century this transformed with the addition of a fourth voice contratenor. These newly invented parts were created to function in the same range and texture of the tenor, sometimes crossing it freely and participating in new possibilities of sonorities for the motet. By the end of the century, there appeared instances of yet another alternate composite part labeled *solus tenor* that combined elements of a tenor-contratenor pair, and then used as a substitution for the lower voices.

This paper explores the idea that there was a new understanding of motet construction as composers moved away from a model that restricted the *cantus firmus* to the lowest sounding part at all times. I will explore the question of whether new contratenor parts simplified or complicated the overall sonority of motets. I also explore the potentially troublesome issue of voice crossing that took the range of the contratenor below the tenor, thereby creating a strong sense of "tonality," but also contributed to excessive doublings of pitches and problematic dissonances between parts. In addition, I will consider the invention of the solus tenor, which may have been originally a compositional tool, yet also represents the rethinking of motet construction that no longer starts with a tenor working up to the other voices, but instead back downwards. A solus tenor is an ingenious invention that cleverly shifted composition away from the constraints of a borrowed *cantus firmus* and allowed for creative freedom focused on newly invented melodies with equal attention paid to every voice part. Ultimately, the addition and subsequent retraction of new voice parts indicates that motet composition was not a static art with the ultimate intention being a performance planned for one single event. Instead it was a musical practice that lived and breathed and transformed during a much longer time frame than has previously been considered.