

## **Mamluk on Day One:**

Introducing Post-Common-Practice Music into the Early Undergraduate Music Theory

Curriculum

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**Abstract:** *The undergraduate music theory curriculum as it is taught in most programs is in the process of modernizing in regards to teaching methodology (Universal Design for Learning, the Flipped Classroom, backward design, etc.), representation and diversity, and the changing needs and pre-existing knowledge of students. Significant research and modeling has shown how instructors can introduce music by women composers, and music from outside the classical canon to the theory classroom, and how to adapt the teaching of post-tonal music to suit the needs of our students. This research presents a model to overcome students' reticence towards engagement with the art music of the 20th- and 21st-Centuries by introducing post-tonal (or post-common-practice) repertoire as a means of teaching selected topics in the early semesters of undergraduate music theory.*

## **I. Introduction:**

A cursory survey of literature on the teaching of post-tonal and contemporary music theory quickly reveals two recurring sentiments. The first is the tendency of instructors to bemoan the cursory treatment given to the music of the last century-and-a-half by the course structure of most university music programs, where post-tonal theory is relegated (in the best-case scenario) to a fifth semester of required theory, a devastatingly short unit tacked onto either the third or fourth semester of tonal theory, or, worst of all, to exclusively elective courses. Some theorists, such as Michael Buchler, put this rather elegantly, giving the deficiencies of curricular design the best possible spin:

We aren't generally accorded much time to introduce twentieth- and twenty-first-century music to our undergraduates. So when we arrive at the unit (or, if we're fortunate, the semester) on "new" music, we need to be efficient with our time and should keep our eyes and ears on the ultimate prize: leaving students so enamored with at least part of the atonal repertoire that they want to perform it and study it further.<sup>1</sup>

I, joining the ranks of the dis-satisfied pedagogue, would put the situation more bluntly (though less profanely than I would have it in my mind): modern music (here meaning music written by living composers and their compositional "parents" and "grandparents" and not adhering to the strictures of Common Practice Tonality) is unjustifiably buried by the avalanche of music by the dead European males of "The Canon," actively contributing to the watering-down of knowledge attained, and ability of the current generation of students to understand the

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<sup>1</sup> Michael Buchler. "A Case Against Teaching Set Classes to Undergraduates." *Engaging Students: Essays in Music Pedagogy*, vol. 5, 2017. Accessed March 12, 2019. <http://flipcamp.org/engagingstudents5/essays/buchler.html>

music being made that reflects their own time. In our efforts to ensure the fluency of our students in the language of CPT — which *must* be accomplished in order for them to have the foundation on which to later build an understanding of free atonality, serial music, minimalism, spectralism, musique concrete, neo-classicism, acousmatic music, impressionism, the third stream, etc. — we often lose sight of the fact that not every topic covered in the early semesters of music theory is one applicable strictly to tonal music.

Kulma and Naxer make a similar point, noting that while music — and by necessity the theoretical tools we need to understand it — is constantly evolving, “the breadth of tools and repertoire introduced to undergraduates has not changed alongside it,” and that “to prepare our twenty-first-century students for their future as well rounded musicians, we need to give them more musical tools and expose them to more repertoire.”<sup>2</sup>

Sam Richards concurs, writing that “we should strive to offer students a more complete musical perspective. Few of our graduating professional musicians operate within spheres where such a narrow focus on music of the Western classical tradition is warranted...it teaches too much about too little.”<sup>3</sup>

These observations lead to the second recurring sentiment in the literature surrounding the teaching of post-tonal music, which is the seeming consensus that undergraduate students approach post-tonal music with a a lack of interest, apprehension, fear, pre-programed distaste,

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<sup>2</sup> David Kulma and Meghan Naxer. “Beyond Part Writing: Modernizing the Curriculum.” *Engaging Students: Essays in Music Pedagogy*, vol. 2, 2014. Accessed March 12, 2019. <http://flipcamp.org/engagingstudents2/essays/kulmaNaxer.html>

<sup>3</sup> Richards, Sam. “Rethinking the Theory Classroom: Towards a New Model for Undergraduate Instruction.” *Engaging Students: Essays in Music Pedagogy*, vol. 3, 2015. Accessed March 12, 2019. <http://flipcamp.org/engagingstudents3/essays/richards.html>

disdain, or a combination of all of the above. Many a pedagogical article begins with a nod to this very notion:

For the most part, these students will have been minimally exposed to post-tonal music...the little they know about it, often through heresy, is they don't, or won't like it, that it's different (translate as weird), incomprehensible, and not exactly pretty. In other words, we face a clear disconnect between post-tonal music and our present-day core students.<sup>4</sup>

More delicately put:

Undergraduate music students often demonstrate limited interest in contemporary art music. Many have communicated the perception that contemporary music is esoteric and inaccessible, dominated by levels of virtuosity they have yet to develop, extended techniques they cannot imagine mastering, and tendencies toward cacophonous dissonance they find off putting.<sup>5</sup>

I propose, in agreement with the above, that these attitudes are caused, at least in part, by a lack of exposure<sup>6</sup> to post-common-practice repertoire, especially in an academic setting, and by an otherization of post-tonal and non-tonal music brought about by separating it entirely from tonal repertoire in the music theory classroom. I posit that music theory instructors can somewhat ameliorate these attitudes — and give themselves more time to teach post-tonal repertoire — by consciously integrating art music examples from the 20th- and 21st-Centuries into the early semesters of music theory.

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<sup>4</sup>Miguel A. Roig-Francolí "A Pedagogical and Psychological Challenge: Teaching Post-Tonal Music to Twenty-First-Century Students," *Indiana Theory Review*, 33, nos. 1 & 2 (2017): 36.

<sup>5</sup>Terry L. Dean. "Promoting Contemporary Music Engagement through the Composer Interview Project." *Engaging Students: Essays in Music Pedagogy*, vol. 3, 2015. Accessed March 12, 2019. <http://flipcamp.org/engagingstudents3/essays/dean.html>

<sup>6</sup> Certain students — classical saxophonists, percussionists, and some brass musicians, especially — are actually *more familiar* with this music on day one, and my suggestions can help make music theory feel more relevant to their studies. Just like the argument for including examples of jazz (and other vernacular genres), everyone should feel that what is being studied can apply to *their* music.

This achieves several goals. First, by using examples from the post-tonal era, we can make it clear that many topics and analytical techniques are applicable to more than just repertoire. Second, rather than implying a 4:1 (or similarly imbalanced) weighting of importance between the study of tonal and post-tonal music, we place post-tonal music on the same (or marginally more even) level of academic importance as tonal music. Third, we can engender an earlier appreciation for music of the post-tonal era by giving students the means to interact with contemporary repertoire immediately. Last, but certainly not least, we give ourselves more opportunities to include repertoire from a more diverse body of composers.

As a note, for the purposes of this paper, I will focus solely on instances where pieces drawn from the art music tradition of the 20th- and 21st Centuries may be used to aid in the instruction of undergraduate music theory. While I strongly believe that the use of examples from the repertoire of jazz, pop, rock, hip-hop, theater music, folk music, and world music achieves many of my goals, in service of keeping my research focused and of an achievable scope, I have decided to limit my explicitly outlined examples to those from the art music tradition (though when appropriate, I will allude to the use of vernacular musics as instructional aids).

## **II. Methodology and Text Survey:**

One of the principal goals of music theory instruction as espoused in the literature is the expansion of the canon to represent more diverse literature in classroom examples. The music theory curriculum that I, and many reading this, experienced was, and is, one that relies overwhelmingly, if not exclusively, on the music of dead European males who wrote in a specific

and narrow range of styles over the course of little over 100 years. In her chapter of *the Norton Guide to Teaching Music Theory*, Ellie Hisama recounts her first exposure to the work of a female composer in the theory classroom came during an upper-level elective course in the form of Ruth Crawford-Seeger's *String Quartet 1931*. Hisama notes that after being introduced to Crawford's music, she became aware that she had also never encountered music by a non-white composer in a classroom setting, an absence mirrored on concert programs.<sup>7</sup> My own introduction to a theoretical examination of the work of a female composer — the "Scherzo" from Clara Schumann's *Piano Sonata* — didn't come until I began my doctoral studies (though I had studied the work of Joan Tower and Julia Wolfe independently from a composer's perspective). My first engagement with the work of a non-white composer in a similar setting came later still in the form of Toru Takemitsu's *Quotation of Dream*, this time in second year of my doctorate.

When she elected to write her dissertation on works by Ruth Crawford and Marion Bauer, Ellie Hisama did so to deliberately upset the canon, "whether of not [her] work was of interest to potential employers."<sup>8</sup> As it did for Hisama, and many others, the canon of examples utilized in the classroom has the potential to leave students with the impression that this — the music of the white males of the canon — is the only music worthy of serious academic scrutiny. Recent (and often not-so-recent) scholarship has magnified the need to diversify the music we use to teach music theory, including music by women composers, composers of color, LGBTQ+ identifying composers, composers of non-European or American descent, and living composers.

Cara Stroud, in discussing the challenges of expanding the examples used in teaching to include those by female composers, writes that "I want all of my students, especially those who

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<sup>7</sup> Hisama, Ellie M. "Considering Race and Ethnicity in the Music Theory Classroom," in *The Norton Guide to Teaching Music Theory*, ed. Rachel Lumsden and Jeffrey Swinkin (New York: W.W. Norton, 2018), 253.

<sup>8</sup> *Ibid.*, 254

are members of under-represented groups, to feel welcome...and I feel it is valuable for all of my student to see and hear music from a diverse range of composers.” She makes special note of “the vital importance of presenting work by women composers for all students” in order to “provide role models for women students [and to] encourage all students to expand their concepts of femininity and masculinity”<sup>9</sup>

Stroud’s essay begins with an acknowledgement that despite her best intentions to present “repertoire from multiple genres, genders, and ethnicities”<sup>10</sup> her own teaching, like that of many if not most theory professors, falls short. For many topics in music theory, examples by female composers are not readily available and faculty often lack the time to effectively incorporate them into their curricula, though, as Stroud notes, the website “Music Theory Examples by Women”<sup>11</sup> and other resources have made a tremendous impact on this front. To make up for the lack of time to prepare, and other issues surrounding the diversification of classroom examples, Stroud suggests a number of strategies to confront the imbalance. Though her article focuses on diversification by gender, three issues — canonical thinking, accessibility, and tokenism — and her solutions,<sup>12</sup> are easily applied to other spectra of diversification, including my efforts to bring music of the 20th- and 21st-Centuries into the early semesters of music theory.

Canonical thinking, Stroud writes, is the “tendency to go back to the same limited set of classic teaching examples from year to year.”<sup>13</sup> While this saves time, it leads to stagnation, and

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<sup>9</sup> Stroud, Cara. “Transcending the Pedagogical Patriarchy: Practical Suggestions for Including Examples from Women Composers in the Music Theory Curriculum.” *Engaging Students: Essays in Music Pedagogy*, vol. 6. 2018. Accessed March 12, 2019. <http://flipcamp.org/engagingstudents6/essays/stroud1.html>

<sup>10</sup> Ibid.

<sup>11</sup> <https://musictheoryexamplesbywomen.com/>

<sup>12</sup> Stroud, 2018

<sup>13</sup> Ibid.

stands in the way of diversification. Stroud suggests incorporating at least two works by women composers per semester. Like my efforts, this is easier to achieve with some topics than others, as illustrated by Stroud's difficulty in finding a "pedagogically useful sonata example."<sup>14</sup> To overcome this, she suggests identifying from the outset which topics are specific to a certain time-period, making finding an example by a woman less likely. The solution, identifying topics that are present across a broader spectrum of time,<sup>15</sup> is the same one that I propose to use in introducing more contemporary examples into the undergraduate theory classroom. These two efforts — and efforts to diversify by race and ethnicity, such as those proposed by Hisama — will often, and deliberately, overlap.

In his "Ten Tips for Teaching Post Tonal Theory," Joseph Straus begins with the pronouncement to teach "less theory, more music."<sup>16</sup> In the context of his ten tips, Straus means that the instructor of a post-tonal theory course should spend less time on the minutia of theoretical constructs and more on introducing repertoire. This is a rule that I feel is broadly applicable to the teaching of music theory in general. The topics introduced in the first semesters of the undergraduate curriculum are often ones treated with abstraction, not repertoire. The concept of pitch, for instance, is often taught through the use of keyboard diagrams and discrete "name the pitch" exercises. As I will address later, this is a prime opportunity to teach what is often the very first topic of music theory with examples of contemporary music. Straus also recommends "diving straight"<sup>17</sup> into post-tonal repertoire when students reach that course/unit.

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<sup>14</sup> Ibid.

<sup>15</sup> Ibid.

<sup>16</sup> Straus, Joseph N. "Ten Tips for Teaching Post-Tonal Theory," in *The Norton Guide to Teaching Music Theory*, ed. Rachel Lumsden and Jeffrey Swinkin (New York: W.W. Norton, 2018), 79.

<sup>17</sup> Ibid., 86

Introducing the material early on serves to offer students the chance to “dip their toes in the water.”<sup>18</sup>

Conveniently located in the same book as Straus’s “Ten Tips,” Jeffery Gillespie’s rumination on the applications of Universal Design for Learning to the teaching of music theory offer additional insight into the introduction of contemporary music to beginning music theory students. In his efforts to offer more approaches to the application of music theory, Gillespie details the assignment of instrument-specific analysis projects to his students. While this approach will enable some students to engage directly with post-tonal literature, for instance, the clarinetist detailed to a study of Stravinsky in the first semester of their freshman year,<sup>19</sup> it necessitates a small classroom size, extensive preparation time on the professor’s part, and, for many, changes to the core structure of the music theory curriculum, a change that is beyond the authority of many instructors. Despite this, Gillespie’s approach of finding elements of specific pieces that are approachable from an analytical angle is one that I will draw on in my own methodology, though my goal is to offer examples that professors can draw upon without necessitating broad curricular changes (however much they may be needed or desired).

For the purposes of my research, I will modify Stroud’s methodology slightly while incorporating ideas gleaned from Hisama, Straus, and Gillespie, among others. Additionally, I will use textbook Tables of Contents to identify topics common to the early semesters of music theory, operating under the assumption that programs tend to roughly follow the progression of their chosen text. With each of these common topics — compound melody, for instance — I will ask four questions. First: is this topic exclusively the domain of tonal music? Second: is this topic

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<sup>18</sup> Ibid., 86

<sup>19</sup> Gillespie, Jeffrey L. “Engaging First-Year Music Theory Students Through UDL (Universal Design for Learning),” in *The Norton Guide to Teaching Music Theory*, ed. Rachel Lumsden and Jeffrey Swinkin (New York: W.W. Norton, 2018), 338.

one wherein a functional harmonic understanding is crucial? For instance, while the augmented 6th chord, or at least its sound, occurs outside of the tonal repertoire, it is best understood in the context of functional tonality. Third (if the second question necessitates tonality): are there tonal examples from the 20th- and 21st-Centuries that are not needlessly complex and do not require excessive “but” statements from the instructor to assign relevance? Fourth (should tonality not be explicitly required): are there examples by female composers, living composers, non-white composers, non-Western composers, LGBTQ+ composers, etc.? Similarly, are there readily available compositions that allow for classroom engagement with underrepresented instruments and ensembles (such as saxophone, euphonium, percussion, guitar, wind band, electroacoustic music, etc.)?<sup>20</sup> These final questions help ease the canonical weight that dead European males (ex. the Second Viennese School), continue to hold over the teaching of post-tonal music.

These questions can easily be used to create room for examples from jazz, pop, rock, world music, etc., but, again, to keep the scope of this research manageable, I will be focusing on examples from the art music tradition and on my first and fourth questions.

For now at least.

Based both on my own pre-existing familiarity and the frequency with which they are cited in other literature, I will reference five texts throughout this paper as reference to commonly occurring curricular structure. The five texts are Steve Laitz’s *The Complete Musician*, Kostka and Payne’s *Tonal Harmony*, Burstein and Straus’s *Concise Introduction to Tonal Harmony*, Clendinning and Marvin’s *Musician’s Guide*, and Aldwell and Schachter’s *Harmony and Voice Leading*. While not the

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<sup>20</sup> This is not to say that there is no place in the theory classroom for piano, string quartet, or operatic repertoire. Rather, the intent is to explore topics through repertoire that engages with the instruments/voices of everyone in the room, not just a few. As an undergraduate saxophonist, I could easily have dismissed all four semesters of theory since it never engaged with repertoire for my instrument, or even repertoire from a time period in which my instrument had been invented.

only texts used in the teaching of undergraduate theory, these texts are frequently utilized in crafting course design and as resources from which to draw pre-designed examples.

These texts show considerable similarity in their introductory material, beginning with facets of pitch and rhythmic notation, intervals, meter, major and minor keys, and triads and seventh chords. Following this, there is some deviance in detail and the ordering of topics, with modes being introduced early on in the Clendinning/Marvin, and Kostka/Payne moving quickly into triad inversions while the other texts begin with two-voice counterpoint. Regardless of subtle differences, these texts all cover a similar breadth of topics in their tonal chapters. An additional similarity is that, with the exception of Clendinning and Marvin's *Musician's Guide*, no example of 20th-Century post-tonal art music is introduced prior to units dedicated to the subject, though all of the texts manage to find examples from jazz, rock, pop, musical theater, etc. to illustrate various ideas. Clendinning uses Webern's *Symphonie*<sup>21</sup> to illustrate compound intervals, Bartok's "In Lydian Mode"<sup>22</sup> from *Mikrokosmos* to illustrate the Lydian mode (fancy that), and Holst's "Fantasia on the Dargason"<sup>23</sup> from his *Second Suite in F* (not a truly post-tonal piece, but solidly 20th-Century fare, and a wind band piece, to boot) to illustrate compound meter and hemiola.

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<sup>21</sup> Clendinning, Jane Piper, and Elizabeth West Marvin. *The Musician's Guide to Theory and Analysis*. (New York: W.W. Norton & Company, 2016), 113.

<sup>22</sup> *Ibid.*, 103.

<sup>23</sup> *Ibid.*, 80.

### **III. Application:**

The first question I propose in my methodology (is this topic exclusively the domain of tonal music?) is one that divides the topics common to the theory texts I explored into three categories. First, low-hanging fruit: topics that are clearly not exclusively of tonal importance. These topics include many pre-tonal concepts such as pitch, interval, rhythm, and meter, as well issues of symmetry, textural types, and text painting, to name a few. The second category, requires slightly more consideration. Topics such as sentence structure, compound melody, invertible counterpoint, and mode are ones that present a surface of exclusivity to tonal music, but after some thought and exploration can be expanded. The final category are topics that *are* more appropriately the domain of tonal repertoire, though they may still be illustrated by pieces from the more contemporary veins of tonal music. The topics covered in the following sections will cover a number — though certainly not all — of the topics that fall into the first two categories, roughly following the order in which they would be taught.

#### 1. Pitch:

The very first topic taught in most, if not all, undergraduate music theory courses is the concept of pitch. This topic is almost always covered via the use of keyboard diagrams, artificially-constructed examples, or with simple examples by Mozart, Bach, Haydn, or some other dead German male composer. Given that one of the primary goals of collegiate music theory instructors is to teach the subject with an “expanded canon,” this choice is an obvious mis-step. If our goal is to introduce students to the concepts of pitch and pitch-class, there is no end

to the possible pieces we might use to teach them. A logical choice would be to use a piece of 12-tone music, a spectralist piece, or even a texturally-driven piece of contemporary repertoire.

As in all cases, we should strive to present complete works, or at least significant portions of works whenever possible. The palindromic theme to Ursula Mamlok's *Variations for Solo Flute* (see Figure 1), can be just as easily understood by students at the very beginning of their theoretical studies. More than being an example "just as good" as one from the tonal repertoire, using the Mamlok sends a powerful Day One message to students: this classroom values the music of women composers, intends to engage with diversified repertoire, and intends to challenge its students in ways that apply even the most basic concepts to complete pieces.

Considering a backward design approach to using this piece as classroom example we must first clarify our objectives. Since our primary objective here is to create fluency in the identification of pitch, our first objective might be stated like this:

**Objective 1:** Students will correctly identify all pitches in the theme to Mamlok's *Variations for Solo Flute*.

This objective is simple enough, though it is no different than the same objective as directed towards any piece from the tonal repertoire. The beauty of using the Mamlok as a day one (or day two, depending on how long syllabus discussion takes) is that it demonstrates *why* we study music theory by allowing students to discover something important about the piece using the most basic of theoretical concepts. Therefore, our secondary objective would be stated as:

**Objective 2:** Students will diagram or articulate the form of the theme to Mamlok's *Variations for Solo Flute* based on the palindromic pattern of pitch presentation.

Next, we ask how we know whether or not we have achieved our objectives. This is the “assessment” stage of backward design. The assessment of our first objective is simple enough: students will write pitch names beneath each note of the theme on a provided copy of the score. As the epitome of a low-stakes assessment, students will compare their solution to that of their neighbors in class and to the instructor’s solution (presented after allowing students to discuss any differences in interpretation). For this objective, the assessment and classroom activity (the remaining step of the backward design process) are one and the same.

For our second objective, the assessment is similarly low-stakes and matches the objective word for word, though this assessment may be more detailed (ie, “Students will draw an inflection point on the score and write a sentence describing the form of the theme”) if desired. The classroom activity to achieve this objective is likely more in-depth than that of the first objective. I would propose a “Think - Ink - Pair - Share” activity. Students will take between 30 seconds and one minute (while a recording plays) to consider the form of the piece (Think) and will then write a sentence or two to organize their thoughts (Ink). Next, for one to two minutes, students will confer with their neighbors (Pair). During both of these phases, the instructor should walk around the room and question/prod students/pairs in the direction of completion, paying particular attention to students who show signs of concern or confusion.

Following pair discussion, the instructor can call on any given student or pair to share their thoughts, inviting alternate interpretations or additional observations as may be pertinent (which is likely unnecessary in this case). Students can even be called to the front of the room to share their diagrams or to add an inflection point to the instructor’s copy of the score (as is shown in Figure 1). At this point the instructor may ask students to discuss how understanding the

palindromic structure of the theme will influence how they play it. Is this answer different from how they might sight-read the piece?

Flute

Adagio ♩ = 58

pp mp p f mp

6 pp

10

**Figure 1:** Ursula Mamlok, *Variations for Solo Flute*, mm. 1-14 with annotations showing point of inflection

Following discussion, a final listen-through of the piece, with newly oriented ears, will help students cement an understanding of the piece. As students progress through their semesters of theory, they will eventually grasp the importance of individual lessons, but for such an early lesson the instructor should point out that students have accomplished something special: using nothing but an understanding of pitch, they have made important analytical observations about a piece of contemporary literature.

The Mamlok is an ideal piece for many reasons, and can be recycled when discussing the inversion of intervals, theme and variations, and several other topics. While any number of pieces from the 20th- and 21st-Centuries can be used to illustrate pitch, pieces *driven* by pitch/motive, especially those for a for a single instrument (or an extracted part from a chamber piece), are ideal, since they remove the confusion of multiple lines. While there are innumerable

possibilities to use to teach pitch, several other potential pieces are listed in below in Figure 2, with advantages of using each piece. As he Hindemith or Tower are useful in teaching the reading of alto clef, while others are of greater historical significance and have facets that can be at least partially understood strictly through examination of pitch patterns.

**Figure 2:**

<b>Composer</b>	<b>Title</b>	<b>Advantages/Additional Topics</b>
Crawford, Ruth	<i>Diaphonic Suite, no. 1</i>	Atonal, female composer, historical significance
Hindemith, Paul	<i>Viola Sonata</i>	Post-tonal, alto clef reading
Tower, Joan	<i>Wild Purple</i>	Post-tonal, alto clef reading, female composer
Webern, Anton	<i>Piano Variations</i>	12-tone, historical significance
Ligeti, Gyrgori	<i>Sonata for Solo Cello</i>	Post-tonal, (2nd movement) alternating treble, bass, tenor clefs
Varese, Edgar	<i>Density 21.5</i>	Post-tonal, historical significance, motive driven
Bonneau, Paul	<i>Caprice en Forme de Valse</i>	Post-tonal, under-represented instrument
Riley, Terry	<i>In C</i>	Minimalist, historical significance, pitch driven

## 2. Keys and Scales:

Keys, key signatures, and scales are often grouped together as topics in the first semester of theory, which is why I have grouped them together here. Keys and key signatures, however, are topics that fail the test presented by my first methodological question: they *are* exclusively tonal phenomena (or at least exclusively tonal in a functional sense). There are certainly examples from the 20th-Century that could be used to teach the concepts — compositions by Bax, Holst, Tailleferre, Ravel, Glazunov, etc. come immediately to mind — but would be used in the same manner as examples from the Common Practice Era, and so do not merit detailed illustration here as did the example for the teaching of pitch. The primary consideration for using 20th-

Century pieces here is that there needs to be an easily recognized tonic center, since we often accompany the teaching of these pieces with the “Sing Tonic” exercise. If students can’t quickly recognize tonic in the selected piece it is either not truly tonal, or is too complex for inclusion in a first semester course. A selection of pieces that could be used to teach key signature are listed below in Figure 3. Since these are tonal pieces, an instructor would be well served to pick a piece that can be utilized later in the first or second semester to teach additional topics (some potential possibilities are also listed in Figure 3).

Many of the pieces used to teach key signature can also be used to teach major and minor scales, though even pieces with a quickly identifiable tonic from the 20th-Century are often highly chromaticized, somewhat limiting their usefulness. If major and minor scales are the only ones included in the curriculum for the early semesters of theory, this is a topic that can be skipped over. If, however, the curriculum includes modal scales alongside major and minor, there is significant opportunity to expand into the repertoire of the 20th-Century, as Clendinning does in her text.

<b>Figure 3</b>		
<b>Composer</b>	<b>Title</b>	<b>Additional Topics</b>
Bax, Arnold.	<i>In a Vodka Shop</i>	Asymmetric meter
Beach, Amy	<i>Symphony in E minor</i>	Orchestral texture, Cadential 6/4
Holst, Gustav	<i>First Suite in E-Flat</i>	Chaconne, wind band literature
Milhaud, Darius	<i>La Creation du Monde</i>	Dorian mode, jazz influence, syncopation, motivic development
Tailleferre, Germaine	<i>Berceuse</i>	Cadences, modulation

While my ultimate goal is not to upset the *status quo* insofar as it pertains to the actual topics included in beginning theory courses, when it comes to the teaching of scales, I have to make an exception. Once we introduce the major scale and the patterns of half/whole steps that

comprise it, it makes logical sense to ask, “what other patterns can we use? Why not all whole steps?” Introducing the chromatic, whole tone, and octatonic scales alongside the Church Modes makes sense, as long as we do so in a limited fashion. Since these scales serve as crucial elements of much of the contemporary music that students may encounter relatively early in their studies (Ives, Debussy, Stravinsky, Bartok), giving them the appropriate vocabulary and a brief exposure to them early on will allow a deeper engagement with this repertoire when they engage with it on their own, and may make them choosing that repertoire more likely.

Clendinning, as I referenced before, introduces the Church Modes alongside major and minor scales. Doing so not only removes the privilege enjoyed by tonal music created by giving exclusive treatment to major and minor scales, but also opens the door to engaging with a wider variety of repertoire in discussing melodic and motivic design (which is also the first step into “real music” following the first batch of fundamentals). As referenced in my literature review, Clendinning uses two examples from the 20th-Century in her section on church modes: Bartok’s “In Lydian Mode” from *Mikrokosmos* and Holst’s “Fantasia on the Dargason” from the *Second Suite in F* for Military Band. These are excellent pieces, and certainly worthy of inclusion in discussion of church modes. Other pieces abound, particularly in jazz, folk, and world musics (which are outside of the purview of this essay).

A sensible approach to briefly introducing the whole tone and octatonic scales to first-semester undergraduates would be to discuss these scales in relation to the pattern of half- and whole-steps in the major scale. As I mention above, the question of “why not all whole steps?” is a logical follow up to the major scale. An example, such as Ives’s perennial favorite “The Cage”<sup>24</sup> can be utilized to not only demonstrate the structure of the whole tone scale and its inability to

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<sup>24</sup> Ives, Charles. “The Cage,” from *114 Songs*. Redding, Conn.: C.E. Ives, 1922.

create a pitch center, but also, with a discussion of text setting, can demonstrate why a composer would chose to use the scale. “The Cage” is so frequently used in post-tonal theory classes because it is such a clear and straightforward example, and it is for precisely that reason that it lends itself to being used in an earlier undergraduate course, freeing the instructor of the exclusively post-tonal course to engage sooner with more complex examples.<sup>25</sup> As with the example with pitch, this lesson is designed with multiple (in this case, three) objectives:

**Objective 1:** students will build the whole tone scale by extracting it from “The Cage.”

**Objective 2:** students will, using their understanding of enharmonic equivalence, articulate an understanding of the limited potential transpositions of the whole tone scale.

**Objective 3:** students will discuss the implications of the text and formulate hypotheses as to why Ives chose the whole tone scale.

I would conceive of this activity as coinciding with a discussion of church modes. Once students have confidence in identifying/constructing modal scales, and can find the patterning of whole- and half-steps in them, the instructor will tell students that it’s time to learn another scale.

As with many of the other scales, the lesson begins aurally. After listening to the beginning of the recording (or the entire piece, since it’s short), the instructor will ask students to fail by singing tonic. Why, they will ask, can the students not identify tonic? Now the score will be presented and students will be asked to build the scale by extracting it from the piece and to write in the types of steps included. Again utilizing the “Think - Ink - Pair - Share” strategy, the instructor will initiate a discussion on the structure of the scale.

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<sup>25</sup> This also saves time down the road, removing the need for the instructor of a Post-Tonal Theory course to engage with the concept of the whole tone scale or with this piece. This is the sort of “toe-dipping” that Joseph Straus stresses there isn’t time for later. There *is* time for it in Theory 1.

Next, students will attempt to make as many transpositions of the scale as possible. This is, once again, an invitation to failure, as there are only two possibilities. This step can be fairly cursory, as a discussion of even and odd collections is beyond the scope of an introductory course; nonetheless it is important that students realize the limited transposition possibilities of the scale.

The critical thinking portion of this activity comes next, again, seeking to bring the students to a deeper understanding of a post-tonal work with fairly basic analytical tools. The instructor will present the text in isolation and ask for a volunteer to read:

A leopard went around his cage  
from one side back to the other side;  
he stopped only when the keeper came around with meat;  
A boy who had been there three hours  
began to wonder, "Is life anything like that?"<sup>26</sup>

Students will then take part in an open discussion of the mood implied by the poem, with the instructor nudging students towards ideas of futility, repetition, etc. as necessary. The students will quickly realize at this point that a scale that never really settles down is perfect for this poem.

### 3. Intervals

With pitch and scales under our belts, we turn now to intervals. Here again we find that Clendinning has arrived before us, using Webern's *Symphonie* to illustrate compound interval. The

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<sup>26</sup> Ibid.

Webern illustration tells us little about the piece, but makes for a useful exercise in interval identification. Like with pitch, we can use almost any piece for this purpose, making it once again

Figure 5

**Example Worksheet 1: Intervals**

A. In the space below, identify each paired set of intervals in Sofia Gubaidulina's *Toccata-Troncata* with direction and quality.

The image shows a musical score for Sofia Gubaidulina's *Toccata-Troncata*. It consists of two systems of piano accompaniment. The first system is marked 'Vivo' with a tempo of quarter note = 80, and the second system is marked '(a tempo)'. Both systems are in 12/8 time and feature a forte (*ff*) dynamic. The score includes various musical notations such as slurs, accents, and dynamic markings. Eight specific intervals are highlighted with numbered boxes: 1 (top staff, first measure), 2 (bottom staff, first measure), 3 (top staff, second measure), 4 (top staff, third measure), 5 (top staff, fourth measure), 6 (top staff, fifth measure), 7 (top staff, sixth measure), and 8 (bottom staff, seventh measure).

1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7 \_\_\_\_\_ 8 \_\_\_\_\_

B. Identify the specified intervals in the following excerpt from Toru Takemitsu's *Valeria*.

The image shows a musical score for Toru Takemitsu's *Valeria*, featuring Violino, Violoncello, and Chitarra. The score is in 4/4 time and includes the instruction 'should be played almost as quietly as possible except where specially indicated'. The dynamics range from *mf* to *ff*. Five specific intervals are highlighted with numbered boxes: 1 (Violoncello, first measure), 2 (Chitarra, second measure), 3 (Violino, third measure), 4 (Chitarra, fourth measure), and 5 (Violoncello, fifth measure).

1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_

an opportune moment to introduce some diversity into our curriculum. The opening sections of *Valeria* by Toru Takemitsu, the beginning of Sofia Gubaidulina's *Toccata-Troncata*, or any of the innumerable other pieces from the last century characterized by large leaps. An example worksheet for the Takemitsu and Gubaidulina is shown above in Figure 5.

For a longer lesson example, we again look for a piece where the understanding of interval can lend insight on an entire piece. For this topic I can think of no better example than the "Prologue" of Lutoslawski's *Muzyka Żałobna (Funeral Music)*.<sup>27</sup> The limited horizontal interval content will allow for quick pattern recognition which can be extended to recognition of pitch and rhythm patterns as well. Using this piece also allows the instructor to introduce another monumentally important composer to students several semesters early, once again building a base of repertoire awareness that would otherwise be lacking.

As with the other pieces, there is a limit to the expectations an instructor can have for their students in approaching a piece like this, but we can still realize a number of objectives:

**Objective 1:** Students will identify the pattern of horizontal intervals used in the first and second cello parts of Lutoslawski's *Muzyka Żałobna*.

**Objective 2:** Students will discuss any additional pattern they may observe in *Muzyka Żałobna*.

While the first of these two objectives is critical, the second is included to leave the door open to student observations regarding pitch ("all 12 chromatic pitches are used before any are repeated") or rhythm ("there's a pattern to the rhythm, but it doesn't start where the pattern of pitches starts") in order to demonstrate applicability of the topic. The 12-tone implications of the

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<sup>27</sup> Lutoslawski, Witold. *Muzyka Żałobna*. New York: Chester, 1972.

Figure 6

**Example Worksheet 2: Intervals in Context**

**Instructions:** analyze the melodic intervals between each successive note in the first cello part of the following excerpt (from Witold Lutoslawski's *Muzyka Żałobna (Funeral Music)*). Compare these intervals to those found in the other instrumental parts. In the space below the score, discuss your observations.

The musical score is presented in three systems. The first system shows the first two cellos (I and II) with a 'p' dynamic. The second system shows the first two violas (I and II) with a 'mp' dynamic. The third system shows the first two violas (I and II) with a 'mf' dynamic, and the first two cellos (I and II) with a 'mf' dynamic. Circled numbers 3, 5, and 5(10) are placed above specific notes in the first cello part to indicate intervals for analysis.

opening and the isorhythmic canon employed by Lutoslawski are both beyond the scope of Theory I, but, if they are observed regardless, the instructor can clarify the implications of their observations.

Figure 6 shows a model worksheet that could be used to achieve the first two objectives. The assignment could work well as either an in-class exercise or as a homework assignment with in-class discussion as a follow up. If used as an in-class exercise, this piece offers a good opportunity for students to sing “harder” intervals. Assuming observations are made regarding the canon, the instructor can even divide students into multiple groups and sing a large portion of the prologue.

#### 4. Rhythm and Meter:

As a facet of music divorced not only from tonality, but also from pitch, the various aspects of rhythm and meter are obvious places to include musical examples from outside of the tonal canon. For any of the various subsets of rhythm and meter one can find classic examples by women composers (Clara Schumann’s *Piano Sonata* for syncopation), jazz artists (the entire Dave Brubeck album *Time Out* for complex meters), living composers, hip-hop artists, and from world music. Similarly, any number of pieces from the art music repertoire of the 20th- and 21st-Centuries can be used to teach topics of rhythm and meter. These topics are myriad, but three topics that either get too frequently glossed over in the classroom, or are particularly amenable to illustration via 20th- and 21st-Century examples are syncopation, hemiola/polyrhythm, and asymmetric meter (occasionally, and frustratingly mis-labeled as “complex meter”<sup>28</sup>)<sup>29</sup>

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<sup>28</sup> This mis-labeling is thankfully not present in any of the textbooks I have chosen to review, though the topic is missing entirely from both the Burstein/Straus and Aldwell/Schachter and separated from other meter types in the Clendinning/Marvin (to the book’s detriment, in my opinion)

<sup>29</sup> Though less problematic than “complex,” even “asymmetric” is often a misnomer, as several Balkan metric patterns such as the *gankino* are symmetrical: frequently written in 11/8, the *gankino* is grouped into 5 beats (2+2+3+3+2), creating symmetry around the 6th eighth note of the measure.

## 4.1 - Syncopation

As with many of the subtopics that can be grouped together under the umbrella of rhythm and meter, any number of pieces from the 20th- and 21st-Centuries exhibit prominent syncopation. As with pitch, this is a ripe opportunity to use music by a composer from any of the underrepresented groups that we, as instructors, should endeavor to feature more prominently in our teaching. The possible pieces that could be utilized are too numerous to list here, but a selected few are listed below in Figure 7.

<b>Figure 7</b>	
<b>Composer</b>	<b>Title</b>
Andriessen, Louis	<i>De Stijl</i>
Dun, Tan	<i>Crouching Tiger Concerto</i>
Greenstein, Judd	<i>Four on the Floor</i>
Mackey, John	<i>Strange Humors (Sax Quartet Version)</i>
Marquez, Arturo	<i>Danzon no. 2</i>
Mazzoli, Missy	<i>Holy Roller</i>
Milhaud, Oliver	<i>La Creation du Monde</i>
Vila-Lobos, Heitor	String Quartet no. 4, mvt. I
Wolfe, Julia	<i>Believing</i>

The learning objectives and process for any of these examples can follow the same template, which will look nearly, if not entirely, identical to the template to teach syncopation via canonical repertoire. Since syncopation is such a pervasive element of music, the door is opened with this topic to even the most recent music, particularly the beat-driven music of minimalist and post-minimalist music, and the music influenced by those movements. Judd Greenstein's *Four*

*on the Floor* is an excellent example, as it bridges the world's of classical and popular music, infusing vernacular sensibilities into a piece for string quartet.

Syncopation is a topic that is likely at least passingly familiar to most, if not all, students, regardless of background. Its pervasiveness in popular styles as well as in art music make it a topic that is both simple to teach, and easy to over simplify. My contention is that syncopation is best understood as a rhythmic disruption of the regular metric pattern of a piece or section of a piece by means of displaced accents. This is not the same as defining syncopation as “accenting offbeats” as many students are inclined to do. Once we clarify terminology, our objectives are:

**Objective 1:** Prior to being given a score, students will articulate their classification of the metric nature of the chosen passage of Greenstein's *Four on the Floor* and how syncopation is employed.

**Objective 2:** Students will aurally identify instances of syncopation in the opening of Judd Greenstein's *Four on the Floor* (and any other pieces we choose to use).

**Objective 3:** Students will annotate a score to show where they heard syncopation occurring and discuss any instances of syncopation they may have identified in the score that are not aurally apparent (or *visa versa*).

**Objective 4:** Students will discuss the affect of Greenstein's application of syncopation.

As should all lessons in metric topics (and most related to pitch), this lesson begins aurally, with students listening to a passage of Greenstein's piece from mm.1-33 (seen below in Figure 8).<sup>30</sup> After listening, students will be asked to create a definition of the piece's meter, which is, in this case, simple duple (4/4). Having identified the meter, students will articulate in the manner of their choice where prominent syncopations are located. Students could sing the first measure of the viola part (“da-da-da-da-da-da-DA”), articulate their thoughts verbally (“most of the syncopations are on the and-of-two or the and-of-four”), or communicate similar thoughts in any

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<sup>30</sup> Greenstein, Judd. *Four on the Floor*. Brooklyn: Good Child Music, 2006.



other way. On a second listen through, either to reinforce previously articulated thoughts or to spur some more focused initial thoughts, students can show their understanding by physically gesturing (i.e. raising their hands) every time they experience syncopation.

For the third objective, students will be given a physical score and asked to highlight, circle, or otherwise notate occurrences of syncopation. Students should be instructed to look for instances of syncopation beyond the ones that they identified solely by ear. Students will likely identify notes tied from the ‘ands’ of two and four to downbeats as syncopation, but may not immediately identify accented notes on beats two, four, and their offbeats as additional occurrences of syncopation. Finally, a discussion should be initiated regarding the affect created by Greenstein’s use of syncopation. Students may key in on the name of the piece as a reference to a drum patters found in popular music as a starting point to this discussion.

#### 4.2 - Hemiola/Polyrhythm

Hemiola, like syncopation, is one of the few metric topics almost always explored by common texts. Several texts,<sup>31</sup> with which I disagree, include the broader category of cross-rhythms/poly-rhythms under the heading of hemiola, an error akin to including “rectangle” under the heading of “square.” It’s backwards. The word “hemiola” *means* two against three, and it is irresponsible to teach it otherwise. Rather, the instructor should introduce the idea of poly-rhythm first as a situation in which beat groupings from one meter are superimposed onto another creating an imperfect mathematical relationship with beat groupings of the notated

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<sup>31</sup> The Laitz is the primary offender on this front.

meter. Hemiola, then, is a special type of cross rhythm which implies a 3:2/2:3 ratio and is common enough to get its own name.

Examples of hemiola in the art music of the 20th- and 21st-Centuries are numerous, particularly in the wind band repertoire. Two particularly good examples, with which I will illustrate a sample lesson, are Samuel Barber's "Solitary Hotel" (from his song cycle *Despite and Still*)<sup>32</sup>, and "Flowers" from Julia Wolfe's *Anthracite Fields*.<sup>33</sup> The example from *Despite and Still* will be introduced aurally, while Wolfe's piece will be paired with the score when introduced. The objectives for the lesson are:

**Objective 1:** Students will sing the pervasive hemiola present in Barber's "Solitary Hotel" based on their listening.

**Objective 2:** Students will transcribe the rhythms of Barber's hemiola.

**Objective 3:** Students will identify the hemiola of "Solitary Hotel" on the score.

**Objective 4:** Students will highlight instances of hemiola in Julia Wolfe's "Flowers."

**Objective 5:** Students will discuss the affect of hemiola in "Flowers" and its relation to the text.

Predictably, this lesson begins with listening. After introducing the concept of hemiola in the abstract, and having students sing or clap patterns of 2:3 or 4:3, they will listen to a recording of "Solitary Hotel" with the instruction to listen for a similar pattern. The contrast of triplets against a *habanera* bass (see Figure 10) is pervasive and should not present great difficulty to identify. After several times through, the instructor will divide the class in half and ask the

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<sup>32</sup> Barber, Samuel. *Despite and Still*. New York: G. Schirmer, 1969, 2010.

<sup>33</sup> Wolfe, Julia. *Anthracite Fields*. New York: Red Poppy, 2014.

The image shows a musical score for Samuel Barber's "Solitary Hotel" from "Despite and Still", measures 4-7. The score is in 4/4 time and features a vocal line and piano accompaniment. The vocal line has lyrics "Au-tumn." and "Twi-light." The piano accompaniment includes annotations for "a tempo", "p", and "ped. sim.". Three shaded regions highlight occurrences of hemiola: 3 (in the right hand) against 2 (in the left hand).

**Figure 10:** Samuel Barber, “Solitary Hotel,” from *Despite and Still*, mm. 4-7, with annotations showing occurrences of hemiola: 3 (in the right hand) against 2 (in the left hand).

students to sing the two rhythms while conducting in four. If necessary, students can sing along to the recording. Once this is done, they should be able to transcribe the rhythms that comprise the hemiola. That done, they can be provided the score and asked to circle/highlight all instances of hemiola. An optional step at this point would be to have students discuss the affect of the hemiola and its relationship to the text, which in this case highlights the disconnect that the narrator feels to the revelry of the rest of the hotel’s occupants.

The second example, Julia Wolfe’s “Flowers,” exhibits near constant hemiola in the accompaniment, though it is considerably less singable than the Barber. Students will be given the score (or an excerpt thereof, such as is shown in Figure 11) and asked to follow along with a recording, circling or otherwise marking occurrences of hemiola. Students can then discuss how the metric destabilization of the hemiola amplifies the perpetual motion of the singers listing all of the flowers grown by the miners. Potential observations might include how the churning rhythms represent the constant work required by mining communities and the monotony thereof, how gardening offers escape from that same labor, or how the hemiola, like the listing of flowers, induces a somewhat trancelike state. The instructor should also make a point of discussing the historical importance of the piece as a whole.

**Figure 11:** Julia Wolfe, “Flowers,” from *Anthracite Fields*, mm. 104-108, with annotations showing hemiola.

Time permitting, the instructor can offer an addendum to discussion of hemiola but introducing the broader concept of cross-rhythm/polyrhythm. Students will eventually encounter non-hemiola polyrhythm in their aural skills work, and, if they have encountered it before, are more likely to grasp the necessity of the topic, despite its difficulty. Here, we must offer a shorter lesson, which serves more as a sneak-peak than a fully-fledged topic. Like the early introduction of synthetic scales, the subject of polyrhythm is likely to arise through student questioning (“if we can do 2:3, why not other ratios?”). Having an example at the ready will allow for a brief introduction to the topic. The third movement of Gyrgori Ligeti’s *Chamber Concerto* offers numerous instances (see Figure 12)<sup>34</sup> of polyrhythm to use to demonstrate the topic. Our objective here is simple: to introduce students to the sound and appearance of a variety of polyrhythms. Performance of the polyrhythms is not necessary, but listening and visual identification can be beneficial. Again, like the brief foray into synthetic scales, a cursory introduction to polyrhythm can serve to ignite curiosity. A simple “listen and identify” activity is enough.

<sup>34</sup> Ligeti, Gyrgori. *Kammerkonzert (Chamber Concerto)*. Mainz: Schott Music, 1970.

Cl. basso  
 Vc.  
 Cb.

37 38

*p* - - - (*cresc.*) - - - *mf* *dim. poco a poco* - - - *mp* - - - (*sempre*  
*poco a poco ord.* *poco a poco sul pont.* *poco a poco ord.*

*mp* - - - (*cresc.*) - - - *mf* *dim. poco a poco* - - - *mp* - - - (*sempre dim.*) -

- *mp* - - - - (*sempre dim.*) - - - - *p* - - - (*sempre dim.*) - - - -

**Figure 12:** Gyrgori Ligeti. *Chamber Concerto*, mvt. III, mm. 37-38.

#### 4.3 - Asymmetric Meter:

Like the Whole Tone or Diminished scale, the topic of asymmetric meter is one that fits naturally into the curriculum of a first semester theory course, though is often omitted from both courses and texts, despite its usefulness given the increasing prevalence of such meters in contemporary repertoire. As with other topics related to meter, much of our initial approach will be aural and the overall lesson can be designed around any of a great number of pieces. In this case, the best examples will be those in which the meter is functional — that is, the meter signature accurately reflects the beat/accents content of the measure rather than being chosen for the purpose of fitting in the correct number of notes — and pervasive — that is, the meter is used for a long enough period of time to be predictable.

For this topic a logical first step would be to introduce asymmetric meter with either a piece of world music (Balkan Dance<sup>35</sup>) or jazz (Dave Brubeck's *Blue Rondo a la Turk* being an ideal choice) before moving on to art music examples. Like other metric topics, the lesson plan and

<sup>35</sup> Again, it is beyond the purview of this paper, but I highly recommend incorporating actual dance into this lesson. Tutorials are readily available on youtube.

objectives for teaching asymmetric meter will look much the same from piece to piece, and will be illustrated below with Silvestre Revueltas' *Sensemaya* and the fugue from Heitor Villa-Lobos' *Bachianas Brasileiras no. 9*.

This lesson begins with *Sensemaya*,<sup>36</sup> which is in a strong and regular  $\frac{7}{8}$  (2+2+3). Our objectives are:

**Objective 1:** Students will aurally discover the meter of *Sensemaya*.

**Objective 2:** Students will diagram the beat pattern of *Sensemaya*.

The instructor will begin this lesson similarly to the syncopation activity (and many others related to meter), with students being told to try to conduct along with a recording. Instruct students to focus their aural attention on the percussion and bass instruments and conduct along once they think they've found the beat pattern. The instructor should offer the hint that the meter is unchanging. The first 23 measures (give or take) should be enough to ascertain the meter. This excerpt is shown in Figure 13.

After listening, particularly if students fail to find a meter that they can conduct, the instructor can ask leading questions such as "is this piece in a simple meter? Compound?" If students have not already identified the  $\frac{7}{8}$  meter, this sort of question will push them to the realization that this piece is neither of the previously encountered metric varieties. At this point, several students will have hopefully grasped the asymmetry of the meter and are able to articulate their observations. If not, displaying a portion of the score absent time signatures may be necessary for the discovery process. Once asymmetry has been observed and diagramed (a

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<sup>36</sup> Revueltas, Silvestra. *Sensemaya*. New York: G. Schirmer, 1949.



possible diagramming solution is shown in Figure 13), a broader discussion of asymmetric meter can begin. The entire lesson is much briefer if jazz or folk examples are used first to illustrate the topic.

Villa-Lobos' *Bachianas Brasileiras no. 9*<sup>37</sup> is to be taught in a slightly different manner. While the lesson can still begin aurally, it is likely too much to ask for students to discover the meter entirely on their own. Instead our objectives are:

**Objective 1:** Students will diagram the beat pattern of the meter utilized in the fugue of Heitor Villa-Lobos' *Bachianas Brasileiras no. 9*.

**Objective 2:** Students will sing beat patterns and conduct along with the recording of *Bachianas Brasileiras no. 9*.

Both objectives in this case are in service of students understanding the  $\frac{11}{8}$  meter of *Bachianas Brasileiras no. 9*. Students will be given the score and asked to follow along. After listening, they will be asked to diagram, in any way that makes sense to them (a possible version is shown in Figure 14), the beat pattern of the meter, which is 2+3+2+2+2. Despite the meter being written in the score as  $\frac{11}{8}$  ( $\frac{5}{8} + \frac{6}{8}$ ), I would discourage the instructor from referencing this, as it damages the

**Figure 14:** Heitor Villa-Lobos, *Bachianas Brasileiras no. 9*, “Fugue,” with beat groupings diagrammed.

<sup>37</sup> Villa-Lobos, Heitor. *Bachianas Brasileiras no. 9*. Paris: Eschig, 1945.

concept of meter as being a *single* repeating pattern. Once diagrammed, students will sing subdivisions and conduct along with the recording.

## 5. Texture:

Texture is a topic that is especially well suited to being taught with examples from the 20th- and 21st-Centuries, since texture and timbre are major motivators of formal design or perception thereof in more contemporary music.<sup>38</sup> It is important that our coverage of texture encompass more than homophonic, heterophonic, polyphonic, and monophonic textures. Distinctions such as the presence of a soloist, the use of electronic voices (is fixed media a drone, accompaniment, or contrapuntal equal?), spoken elements, non-instrumental sounds made by instrumentalist, etc. are important, as is the fact that significant timbral changes effect texture within a piece. None of these distinctions take much time to make and allow for a broader repertoire in general (jazz, world music, electroacoustic music, etc.) to be used in teaching the topic, particularly in the types of rapid-fire exercises usually used to teach texture.

In addition to incorporating contemporary examples into the usual rapid-fire “what’s the texture?” exercises (suitable examples for which are listed above in Figure 15) more extended exercises in which texture plays a major role in dictating form can be used. Pieces that have formal markers dictated by clearly demarcated textural shifts are ideal, and once again allow students to formulate an understanding (or at least a partial understanding) of a piece using basic

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<sup>38</sup> Lohead, Judith. “Texture and Timbre in Barbara Kola’s *Millefoglie* for Chamber Orchestra and Computer-Generated Tape,” in *Engaging Music: Essays in Music Analysis*, ed. Deborah Stein.(New York: Oxford University Press, 2005), 254

**Figure 15**

<b>Composer</b>	<b>Title</b>	<b>Texture Type</b>
Berio, Luciano	<i>Sequenza VII/VIIb</i>	Biphonic
Ligeti, Gyrgori	“Kyrie” from <i>Mass</i>	Polyphonic
Messiaen, Oliver	<i>Quartet for the End of Time</i>	Homorhythmic/Heterophonic
Saariaho, Kaija	<i>Sept Papillons</i>	Monophonic
TV, Jacob	<i>Grab It!</i>	Debatable
Z, Pamela	<i>Feral</i>	Polyphonic/debatable
Rzewski, Frederic	<i>Le Moutons de Panurge</i>	Homorhythmic/Homophonic

theoretical concepts. Examples by Ligeti, Penderecki, Takemitsu, Saariaho, Adams, and Ustvolskaya could all make suitable lessons but I will be illustrating a texture-driven form lesson using “Turangalila 1” from Messiaen’s *Turangalila Symphony*.<sup>39</sup> This lesson is actually an ideal introduction to texture as a general principle: even without knowing the term “texture” or any of the types thereof (monophonic, homophonic, polyphonic, etc.) students will grasp that it is a driving force behind the piece’s structure.

**Objective 1:** Students will aurally identify formal sections of Messiaen’s “Turangalila 1” based on textural/timbral shifts.

**Objective 2:** Students will qualify the textural/timbral areas in “Turangalila 1”

This lesson is an excellent opportunity to involve various technologies. There is no need to involve the score at all in teaching this lesson, so students will identify formal markers by timestamp. Various free technologies enable students to share their ideas in real time without

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<sup>39</sup> Messiaen, Oliver. *Turangalila Symphony*. Paris: Durand, 1953.

needing to shout out their answer. Padlet,<sup>40</sup> Poll Everywhere,<sup>41</sup> or Google Forms<sup>42</sup> all offer a free interface where students can share thoughts in an anonymous manner. Poll Everywhere and Google Forms offer a little more control than Padlet, which offers a real time unmoderated chat format. A poll/form that allows for short written response answers can quickly gather responses to questions along the lines of “where do you hear the first major section change: [Student Answer],” “Where do you hear the next major section change: [Student Answer],” etc.

After listening, the instructor can display the results and use this to guide the construction of a form diagram. This can be done by hand, or, better yet, using a program such as Variations Audio Timeliner. There are a number of advantages to using the program. First, and foremost, it allows for effective and proportional visualization of the piece’s form. It also introduces students to an exceptionally useful tool that they are likely to encounter in later semesters in their study of tonal forms. A potential form diagram of “Turangalila 1” constructed in Variations Audio Timeliner is shown in Figure 16. Students should discuss how they distinguish between sections, with conclusions that will inevitably point to texture and instrumental timbre.



**Figure 16:** Variations Audio Timeliner diagram of “Turangalila 1.”

Once a diagram is constructed, students will listen to the piece again, this time section-by-section, and once again use a poll/survey/chat feature to share their thoughts on adjectives that can describe each section. These terms will be used later on to define our standard types of

<sup>40</sup> [www.padlet.com](http://www.padlet.com)

<sup>41</sup> [www.polleve.com](http://www.polleve.com)

<sup>42</sup> [docs.google.com/forms](https://docs.google.com/forms)

musical texture. The first section, which might be described as “sparse,” “ethereal,” “thin,” or “eerie,” might also be described in terms of its instrumentation (solo clarinet with sparse accompaniment). Once students have come to an agreement about the general nature of the section, we can give it the label “monophonic.” The same process can be used on the remaining sections of the piece, which can varyingly be described as homophonic and polyphonic. Optionally, the piece’s use of the Ondes Martenot also offers the opportunity to discuss the implications of electronic instruments to the discussion of texture and timbre as well as broaching the difficult subject of how to discuss texture in a piece for fixed media.

## 6. Melody

### 6.1 - Melodic Design

Like the subtopics pertaining to rhythm, any number of the subtopics associated with melody can be effectively illustrated using art music from the 20th- and 21st-Centuries. In illustrating melodic design (i.e. stepwise melodic construction), art song is an especially useful genre on which to draw. As in almost every instance there are far too many pieces that could effectively illustrate the topic to list here.<sup>43</sup> I will illustrate a portion of a lesson on melodic design using Missy Mazzoli’s *Vespers for a New Dark Age*.<sup>44</sup>

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<sup>43</sup> This is an excellent opportunity to introduce the music of Schoenberg to students via the opening of his *Book of the Hanging Gardens*. Schoenberg is often the name students most associate with what is “different (translate as weird), incomprehensible, and not exactly pretty.” Seeing one of his melodies so neatly fit into our conception of stepwise melodic design can help dispel their preconceptions about Schoenberg and atonal music in general.

<sup>44</sup> Mazzoli, Missy. *Vespers for a New Dark Age*. New York: G. Schirmer, 2014.

Our lesson here is extremely straightforward, and similar to the rapid-fire exercises used for topics like meter and texture. Once students are familiar with general principles of stepwise melodic design, be it through inquiry-based learning or a lecture, the instructor will present scores and audio and ask students to critique the melodic construction. *Vespers* offers instances that less strictly adhere to these concepts (see Figure 17) and many that do (see Figure 18).



**Figure 17:** Missy Mazzoli, *Vespers for a New Dark Age*, “I. Wayward Free Radical Dreams.” mm. 18-22. Demonstrating non-stepwise melodic design.

Figure 18 shows a musical score for Soprano 2 in 4/4 time. The melody is stepwise and includes triplets. The notes are: G4 (quarter), A4 (quarter), Bb4 (quarter), C5 (quarter), Bb4 (quarter), A4 (quarter), G4 (quarter), F4 (quarter), E4 (quarter), D4 (quarter), C4 (quarter), Bb4 (quarter), A4 (quarter), G4 (quarter), F4 (quarter), E4 (quarter), D4 (quarter), C4 (quarter). The lyrics are: Try\_ to make me for - get you.

**Figure 18:** Missy Mazzoli, *Vespers for a New Dark Age*, “I. Wayward Free Radical Dreams.” mm. 118-122. Demonstrating precise stepwise melodic design.

## 6.2 - Compound Melody

Many of the topics illustrated thus far in this paper have been ones that fall into the category of music theory fundamentals. While it is of great benefit to front load the curriculum with contemporary music to help dispel student misconceptions, it is also necessary to continue to include more modern music wherever possible in later semesters. One occasion for this is the topic of compound melody. Invariably illustrated almost entirely via the Bach Cello Suites, there

is a rich tradition of compound melody in more contemporary music as well. Numerous excellent examples of this can be found in the flute and saxophone music of Sigfrid Karg-Elert. Many of Karg-Elert's *Thirty Caprices for Solo Flute* demonstrate often deliberate similarities to Bach's compound melody, and while the caprices are not all entirely atonal, they exhibit substantial progression in that direction. *Caprice no. 13* is an especially nice example which allows students not only to create a reduction of the acting compound melody, but also to observe important patterns governing how the piece functions.

Like the Bach Cello Suites, *Caprice no. 13* includes aurally identifiable multiple voices with the added challenge of being written "quasi two flutes," each of which has two voices. Our objectives in utilizing this piece are:

**Objective 1:** Students will identify the presence of multiple voices present in a recording of Karg-Elert's *Caprice no. 13* (mm. 1-5)

**Objective 2:** Students will create a two-staff reduction of the first 5 measures of the caprice showing the discrete paths taken by each voice.

**Objective 3:** Students will discuss any patterns they see in their reductions and theorize as to any performance implications thereof.

This task is introduced following the discussion of compound melody in one or more tonal pieces. The piece can be experienced aurally first, or with the score alongside immediately, and, after listening to the opening at least once, students will discuss in small groups how many voices are present. This is an interesting discussion for them to have: Karg-Elert includes the performance instruction "quasi two flutes," and splits beams to separate the two *parts*, but students need to identify that there are two voices per part (four overall voices).

Once they have identified the number of voices, they can construct a reduction of the opening five measures. A score excerpt and sample reduction are shown in Figure 19. With their reductions complete students will be able to discuss the construction of the piece's opening, with

**Leggerissimo e grazioso. (Leichtlin, anmutig.)**

13. *p*  The image shows a musical score for the first five measures of '13. Leggerissimo e grazioso' from Sigfrid Karg-Elert's Thirty Caprices for Solo Flute. The top staff is a single melodic line for the flute, marked with a piano (p) dynamic and the tempo/style 'Leggerissimo e grazioso. (Leichtlin, anmutig.)'. The bottom staff is a four-voice reduction of the same five measures, showing the individual voices of the flute and its accompaniment. The key signature has two flats (B-flat and E-flat), and the time signature is 2/4. The flute line features a chromatic descent in the first measure, followed by a tonic pedal in the second measure, and a chromatic ascent in the third measure. The accompaniment consists of a steady eighth-note bass line and a chordal accompaniment in the right hand.

*quasi 2 Flauti  
(wie 2 Flöten)*

**Figure 19:** Sigfrid Karg-Elert *Thirty Caprices for Solo Flute*, “13. Leggerissimo e grazioso,” mm. 1-5, with accompanying four-voice reduction.

both the chromatic descents and tonic pedals readily apparent. The final step is to discuss performance implications of their discoveries. The instructor can guide them to the conclusion that the chromatic line should be emphasized, despite not being the highest voice, which is where students tend to look for the primary melodic line.

## 7. Counterpoint:

If we teach music analysis as a linear or horizontal endeavor — and we should, since music is an art form that unfolds *linearly* in time — we need to spend considerable class time on the topic of counterpoint, that is: how do two or more voices relate to each other over time.

Whether or not our end goal is fully-fledged Schenkerian analysis, counterpoint is a crucial element of study in music theory. It is also an area of discussion that is very often approached exclusively through the art music of the Common Practice Era, despite a tradition of contrapuntal both pre- and postdating this era. With this in mind, bringing the art music of the 20th- and 21st-Centuries (as well as other genres of music) into the discussion of various contrapuntal topics is a relatively straightforward task. Many topics under the umbrella of counterpoint — identification of contrapuntal interval, imitation, canon, etc. — occur relatively early in the theory sequence. One topic that traditionally falls somewhere between these early topics and study of atonal counterpoint, and one that is often rather light on substance, is invertible counterpoint.

After some exercises in writing counterpoint against a *cantus firmus* and experimenting with flipping the voices and seeing how it effects the quality of the counterpoint, lessons in invertible counterpoint often become “word search<sup>45</sup>” activities. Rather than re-designing the wheel at this point, I would advocate simply carrying the type/variety of repertoire used in the activity. A good piece to end this activity on is Thea Musgraves *Take Two Oboes* (annotated score shown in Figure 20). Not only is it a 21st-Century piece by a living female composer, but also a piece that may resemble the type of repertoire freshmen theory students might encounter in their applied lessons. This opens up opportunity to discuss how an observation of invertible counterpoint could impact performance. Our objectives are:

**Objective 1:** Students will identify instances of invertible counterpoint in Thea Musgrave’s *Take Two Oboes* (mm.1-31)

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<sup>45</sup> Credit to Dr. Bruce Taggart of Michigan State University for this analogy.

**Objective 2:** Students will discuss performance implications of the invertible counterpoint they identified as part of objective 1.

The activity should begin with the score alone,<sup>46</sup> with students instructed to identify instances of invertible counterpoint by circling/highlighting them on the score (this annotation is shown in Figure 20). Instances of invertible counterpoint beginning in mm. 21 are the most obvious (and strongest) examples of the technique, but students will likely identify the less exact use of the technique earlier in the piece.

Next, students will be placed in the hypothetical position of needing to perform the piece. How might the observation of invertible counterpoint influence that performance? Students will likely realize that the inversion of the line indicates that the relative roles of the voices are being reversed, reducing (in the latter examples) the importance of the sixteenth note line in favor of the melodic line. Our final step will be to listen to a recording of the piece and discuss whether or not the performers made the same decisions that we predicted they would make.

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<sup>46</sup> Since this is unlikely to be a piece with which anyone in the room is familiar, opinions on performance will not be colored by existing knowledge. It is also important for students to have the experience of learning a piece when there is not a readily available professional recording of the piece.

# TAKE TWO OBOES

## I

Thea Musgrave

**Pompous** (♩ = 108)

Oboe 1

Oboe 2

1

2

3

4

5

*ff* *mf* *cresc.* *ff* *f* *mf* *f* *pp* *pp* *pp*

*pochiss. rit.* *a tempo*

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**Figure 20:** Thea Musgrave, *Take Two Oboes*, mm. 1-31, with annotations showing instances of

#### **IV. Future Research**

The topics covered in this paper are by no means exhaustive. Rather, they were selected to demonstrate the applicability of the concepts to topics covered over the first several semesters of undergraduate theory, allowing an instructor to explore the music of the 20th- and 21st-Centuries earlier on with their students. I deliberately focus considerable attention in this paper of topics of fundamentals, since many topics of the harmony-heavy second and third semesters are more reliant of conventionally tonal music (and the task of integrating the music of the 20th- and 21st-Centuries is less of a puzzle to solve and more an exercise in repertoire exploration).

It is, however, my intent to continue this research in exploring more topics, especially those that are more entirely tonal. Chief among these topics are elements of form and phrase design, specific harmonies (triads, seventh chords, Cadential six-four, Neapolitan chord, augmented sixth chords, common-tone chords, etc.), text-music relationship, symmetry in music, quotation, and advanced metric topics. The overarching intent of my research is to be able to integrate examples of 20th- and 21st-Century

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