Introducing Post-tonal Techniques to the Beginning Musician

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Chapter 1: Introduction

Most piano teachers agree that exposure to a variety of compositional styles is required for students to become well-rounded musicians. The most popular piano methods (such as Bastien, Faber, and Alfred) all have a similar idea: the exposure to the styles of several eras will prepare them for the advancement into playing literature. The independent lines of Baroque music, stylistic articulations of the Classical period, and the colorful harmonies and attractive melodies of the Romantic era are all characteristics that students become familiar with both in their lessons and daily lives. Students do not have to play the actual literature of Bach, Beethoven or Brahms in order to be exposed to the styles of these composers; they can be introduced to the styles early in their studies through simpler compositions that mimic each style.

Likewise, students do not have to play advanced post-tonal literature in order to be exposed to its wealth of styles and characteristics. Unfortunately, even the most common post-tonal techniques are nearly non-existent in traditional piano methods and not commonly explored as students become more advanced. The deficiency of post-tonal literature for the beginner is partly due to a lack of demand. Common characteristics such as disjunctive melodies, varying degrees of dissonance, unusual methods of sound production, and a general avoidance of tonal cadences or resolution dissuade teachers themselves and therefore will less likely be taught.

Beginner piano literature includes elementary and intermediate pieces and method-like compilations of pieces that are intended to be played when a piano student has finished his or her method books, or in some cases as a supplement to be played in addition to a traditional method. Piano students are generally exposed to traditional and tonal sounds throughout their

lessons. The level at which a piano student begins playing non-method literature varies by student and teacher.[1] Famous composers, such as Handel, Beethoven, and Schubert all have "miscellaneous" piano works that are Levels 1-3 and therefore can be enjoyed by all. Additionally, some composers like Schumann, Scarlatti, C.P.E. Bach, Haydn, and Tchaikovsky have written collections for "young" people which are often shadowed by their more advanced, popular literature. These traditional, tonal sounds are the primary focus of most method books, and therefore remain the focus when literature is being introduced at early levels.

Whether or not a person has music lessons, everyone in the U.S. is exposed to tonal music in television and other media. Therefore, the older the student, the less likely it is they have experienced much post-tonal music and the harder it will be to alter their tastes to enjoy the style and dissonance of post-tonal music. In many cases, the younger, less exposed student makes the best candidate for an introduction to Twentieth Century writing.[2]

Stephen Covello's *The Little Avant-Garde* is a successful example of writing in a Twentieth Century style specifically for very young beginners. The popularity of this book and other experimental pieces indicates that very young students can accept post-tonal writing styles because their lack of exposure to music in general makes their opinions more neutral.[3]

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[1] Jane Magrath's *The Pianist's Guide to Standard Teaching and Performance Literature* provides a wealth of pieces pre-graded for difficulty and exposure. For pieces in this paper that are not listed in Magrath's book, her leveling system was used to determine the approximate difficulty.

[2] In the *Handbook of Music Psychology,* Rudolf E Radocy mentions a study conducted by Petzold determining that grade level plays a huge role in development when it comes to sound acceptance, mostly in grades one and two. (Hodges, 93) Harold F. Abeles later discusses the discovery that formal musical experiences have an important impact on a person's musical taste. (132)

[3] In chapter 3, "Creativity in the Very Young," Wilson and Robeck discuss the benefits of exposing the very young to creativity and new things. It discusses that not only can creativity be taught, it exists in all. (*Teaching for Creative Endeavor*, 56-58)

Teachers are not necessarily avoiding post-tonal techniques because they are too difficult. The biased opinions of some teachers are a direct result of their own lack of post-tonal exposure. As will be discussed in later chapters, some post-tonal techniques can be written to "fit" the hand easily and should be explored and enjoyed by students near the beginning of lessons. Additionally, advanced post-tonal concepts are not well represented in early literature and therefore not available to teachers. This is partly due to the inherent conceptual difficulties of the compositional techniques themselves, but more so because they tend to make pieces more difficult to play and read. Just as tonal compositional techniques must be simplified to accommodate beginners, so must post-tonal techniques.

The biggest difference between a method book designed for beginners and miscellaneous repertoire collections is the amount of explanation provided. Method books progress from point A to point B with specific goals in mind, usually including explanations and exercises. Popular method books of today, although written in the 1950s or after, do not prepare students for the style and challenges of post-tonal music.[4] Vincent Persichetti, Robert Starer, Béla Bartók, and numorous other post-tonal composers have written collections intended for beginners.[5] These pieces are used by some teachers as a supplement to a traditional method for recitals, festivals, or to gain exposure to the era. In addition to the skills that traditional music is focused on in method books, post-tonal music also requires an aural acceptance of dissonance, comfortable reading skills for less predictable musical ideas, and less reliance on familiar positioning and position similarity between the hands. Since none of these skills are attained from traditional method books, even the earliest post-tonal literature may seem too

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[4] In *The Well-Tempered Keyboard Teacher,* Uszler refers to a "method" as a way of teaching someone to do something in an orderly fashion. (Uszler, 339)

[5] Uszler includes Bartok's *Mikrokosmos* Vol. I-III as one of the "teaching classics" frequently explored as an introduction to post-tonal sounds. There are many pieces in this six volume collection, but few of them are Levels 1-3. (19)

difficult to a beginner pianist. The solution to the deficiency of beginner level post-tonal repertoire and explanations is to create new materials that are easily accessible to both teachers and students.

Exposure to post-tonal sonorities and techniques can increase a beginner's interest in music, spark creativity, and introduce them to sounds that are not normally heard at home.[6] It can also help piano students better understand the instrument if they are exploring all of its sound possibilities. The beginner's ability on the piano is profound when compared to other instruments and should be taken advantage of. A beginner on a wind or string instrument cannot be exposed to extended techniques as easily as a beginner pianist due to the general difficulty of sound production. Additionally, the piano's ability to play chords and polyphonic textures gives it the distinct advantage of conveying a more complete compositional viewpoint.

Exposure to post-tonal techniques is just as important as earlier styles, if not more so since it is the music of our time and there is so little exposure to it. This thesis will examine early post-tonal piano literature and my own newly composed works that can supplement traditional method books. Post-tonal techniques that will be explored include nonwestern scales, chord structures unique to the 20th Century, polytonality, serialism, aleatoric music, and experiments in sound production. Through the analysis of repertoire and methods that feature post-tonal techniques, the following goals will be met in this paper: identify deficiencies in existing literature; provide new compositions for concepts that are not represented at each level (1-3) with beginner-appropriate explanations; and identify concepts

[6] Wilson and Robeck discuss what creativity is for the very young and define creativity as "the ability and willingness to generate something that is new, or at least for the child, in ideas or materials." (Michael, 55)

that are too complicated for beginners and give alternative approaches that allow appropriate exposure to concepts.

Chapter 2: Nonwestern Scales

The most widely used scales in Western music of the Baroque, Classical, and Romantic eras are diatonic major and minor scales. Tonal scales are nearly the only scales found throughout most modern method books, therefore preparing students primarily for tonal literature. Exposure to the scales of any style helps students understand its melodies, harmonies, and pitch relationships, so the unfortunate lack of non-tonal scales in method books leaves students at a disadvantage when approaching post-tonal music. Perhaps this problem persists because of the large and almost overwhelming variety of post-tonal scales, including pre-tonal scales such as pentatonic scales and church modes. Occasionally a modal piece will appear in a method book, but it is typically a brief encounter.

The brevity of modal exposure is diminished even further by making a strong comparison to its similar diatonic scale. This prevents students from really experiencing the mode as a new scale, and fosters them to remain in a diatonic mindset, thinking of the diatonic with a "wrong note" present.[7] Similarly, smaller scales that contain five or six notes are rarely explored enough for students to understand the intervallic formula of these scales. Instead, students might only notice that there is more skipping in the piece.

If a scale is prominent enough that students notice something unusual about it, it is often associated with difficulty and includes little explanation.[8] Teachers can, of course, take it upon themselves to introduce the scale to students before introducing a piece that employs it; however, teachers may be blindly following the method book and not really thinking about exposure to new scales when the opportunity arises. This chapter will explore the difficulties

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[7] Thompson and Magrath both refer to "wrong note" writing when non-tonal sounds are present.

[8] Bastien's Primer Level of *Piano Adventures* contains a piece based on the whole-tone scale and its harmonies, "The Dragon's Lair." Many children notice its unusual sound and find the accidentals difficult, and yet there is no mention of the scale.

of post-tonal scales for beginners and present solutions to these challenges so that more efficient exposure can be achieved. Scales covered in this chapter include pentatonic, hexatonic (including whole-tone), church modes, and the chromatic scale.

Pentatonic Scales

Pentatonic scales contain only five pitches and are common in both folk music as well as children's songs. Some pentatonic scales avoid half-steps, a feature known as anhemitonic. The popular example of anhemipentatonc is Major Pentatonic, which is actually older than tonal scales. When half steps are in pentatonic scales, many variations are possible, some being named and many not. Although there are only five notes, this type of scale does not necessarily fit young students' hands easily. Beginners are accustomed to playing five-note pentascales, which are built from the first five notes of a major or minor scale and fit young hands well.[9] Many pentatonic scales, however, require a skip of a minor third or more that can be challenging for small hands.

Because pentatonic scales are not explored in every method book, teachers will often use a supplement that suits students' needs. One of the most popular supplements that teachers turn to is Béla Bartók's *Mikrokosmos*. This collection gives a student exposure to several post-tonal techniques as well as several Non-western scales by name. However, pentatonic scales are not seen in the *Mikrokosmos* until volume two, which ranges from Levels 3-5 and are too difficult for beginners.[10]

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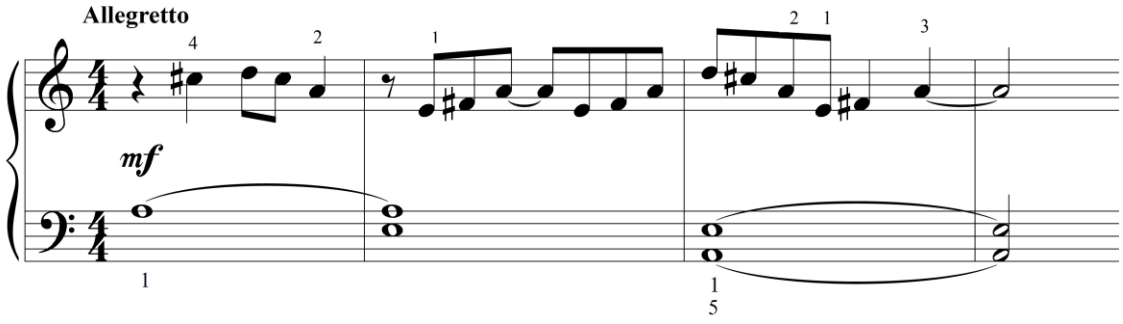
[9] In *Creative Piano Teaching*, William Richards considers the orientation to the five-finger hand position is "aural, intellectual, visual, and tactile." (Enoch, 45)

[10] The first and easiest pentatonic example in volume 2 is no. 51, "Waves" which is Level 4. This piece is sometimes identified as bitonal because the hand positions are A-flat and D-flat. The opening intervals (whole steps and minor thirds) form a black key pentatonic scale, but pitches not found in that scale begin appearing in m. 9, making it more difficult by forcing the student out of their five-finger position.

Steven Covello's "To the Horse Show," from volume II of his collection *Echoes and Images,* is Level 2 and contains pentatonic writing (Example 2.1a). The piece is fun but the placement of accidentals make it challenging for beginners. The theme is based on a single type of pentatonic scale and contains several transpositions, requiring the student to relocate. Although fingerings are provided, intervals as large as a fourth have to be played between fingers. The most interesting section of this piece is the last five measures, where the pentatonic material is transposed several times (Example 2.1b). This section is made easier as the skip is frequently in the same place within the hand.

Although Major Pentatonic scales on white keys are seemingly the easiest form of this scale, students who have been exposed to keys other than C major may find other five-note scales simpler to produce. No. 3 from Samuel Adler's *Gradus* is Level 3 and uses a D major pentatonic scale (Example 2.2). It may be more difficult for players who understand a D major seven-note scale because there are three accidentals instead of two.[11] The required coordination between the hands makes this a Level 3 piece.

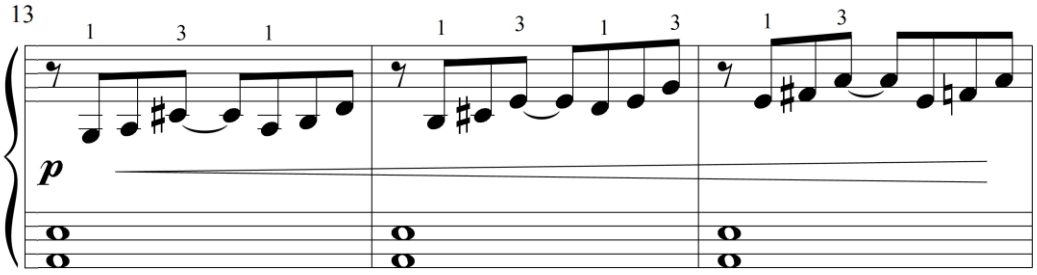
a: Pentatonic writing in "To the Horse Show," mm. 1-4



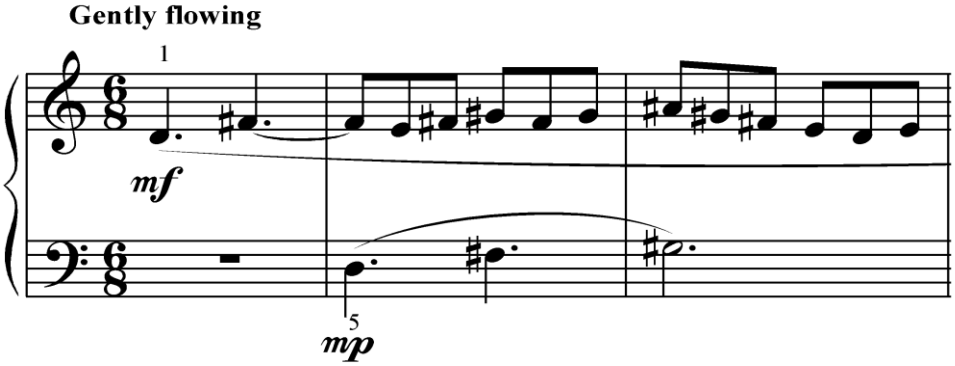
Example 2.1: Covello's "To the Horse Show"

[11] If the student has been using a preparatory method which begins on black keys such as Bastein, this grouping of accidentals would not be as difficult.

b: Several moves of the thumb in order to produce the scale, mm. 13-15



Example 2.1: Continued



Example 2.2: Opening measures of *Gradus,* No. 3 by Samuel Adler

Solutions

The inherent difficulties of pentatonic scales are made more daunting for beginners when the key signature or number of accidentals is unfamiliar, the melody spans over a wide register, or if both hands contain pentatonic writing that must be coordinated. To make pentatonic writing simpler, some of these difficulties must be diminished or students must be made better equipped to handle such difficulties through the form of exercises. Exercises serve as an aural introduction as well as a physical one. Beginners' knowledge of scales is

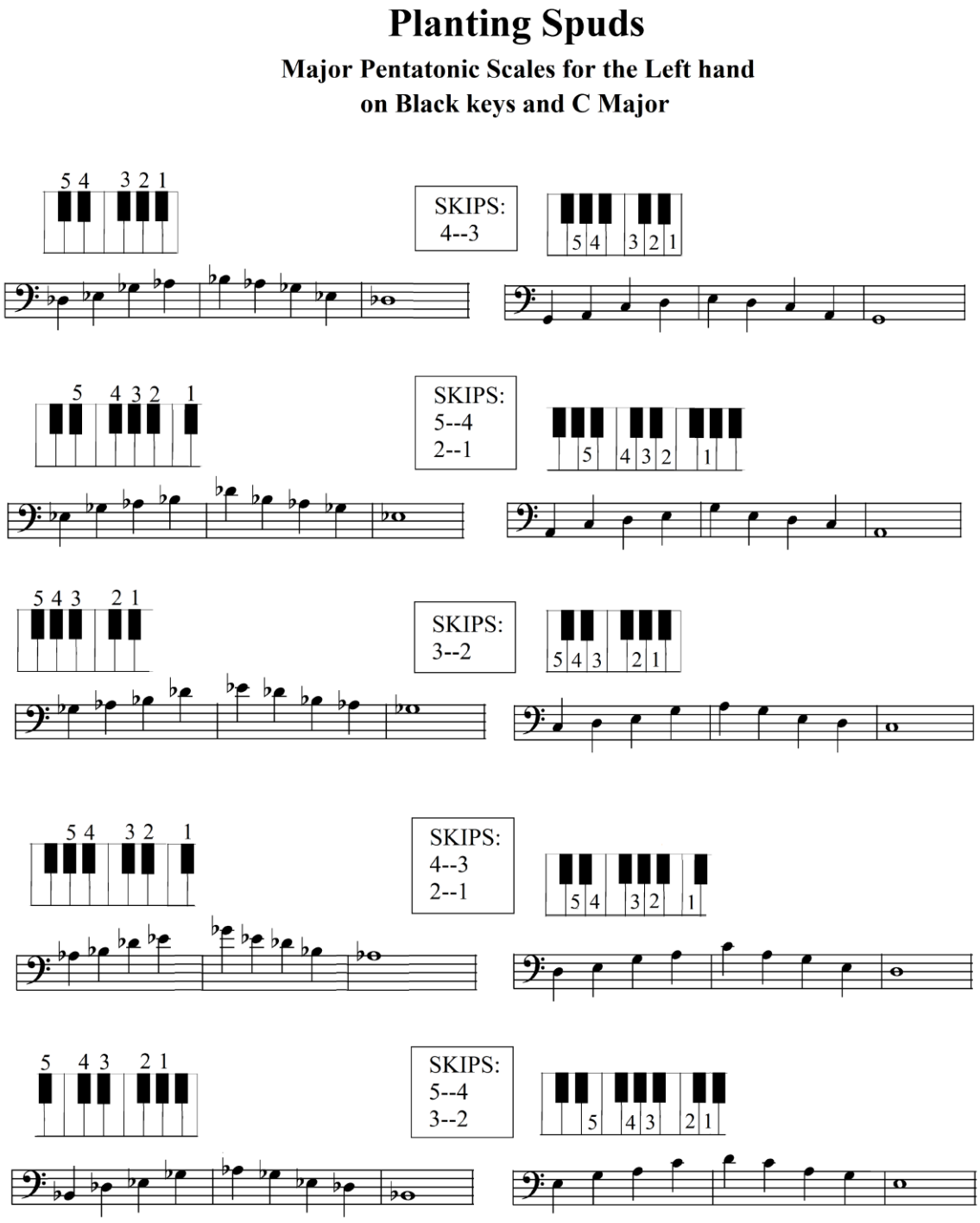
primarily diatonic and therefore students must be aware of the pentatonic scales' distinguishing qualities, such as having at least one skip in the fingers and that it at times contains an unfamiliar placement of accidentals within the hand.

One of the more difficult aspects of playing major pentatonic scales within one stationary hand position is that students have little experience skipping even small distances between consecutive fingers. In several transpositions of the major pentatonic scale there are up to two minor thirds to deal with. Skips between some fingers are more difficult than others. My students can produce major pentatonic scales on black keys easily with any note being tonic. This requires the same skips and finger movement as on white keys, yet it is much easier visually. This makes me question if it is really a physical difficulty, or more of a visual one on white keys. Shifting where the skips are located within the hand is much harder to see if only white keys are being used and this can make the scale daunting for the young.

"Planting Spuds" is a set of Level 1 exercises to help students to more easily assess the difficulty of a pentatonic scale fingering (Example 2.3 a & b). First, each pentatonic scale is presented on black keys, which is easier to see on the piano. This allows the student to produce the scale with ease and to experience where the skip or skips will occur. Then each transposition is shown on white keys so the comparison can be made. The focus of the student should be on where the skips are located in the hand. This opens the lesson up for discussion about which fingers are harder to skip between, what type of hand shape or motion will make it easier, and perhaps even some interval connections can be made between minor thirds on black keys and white keys.

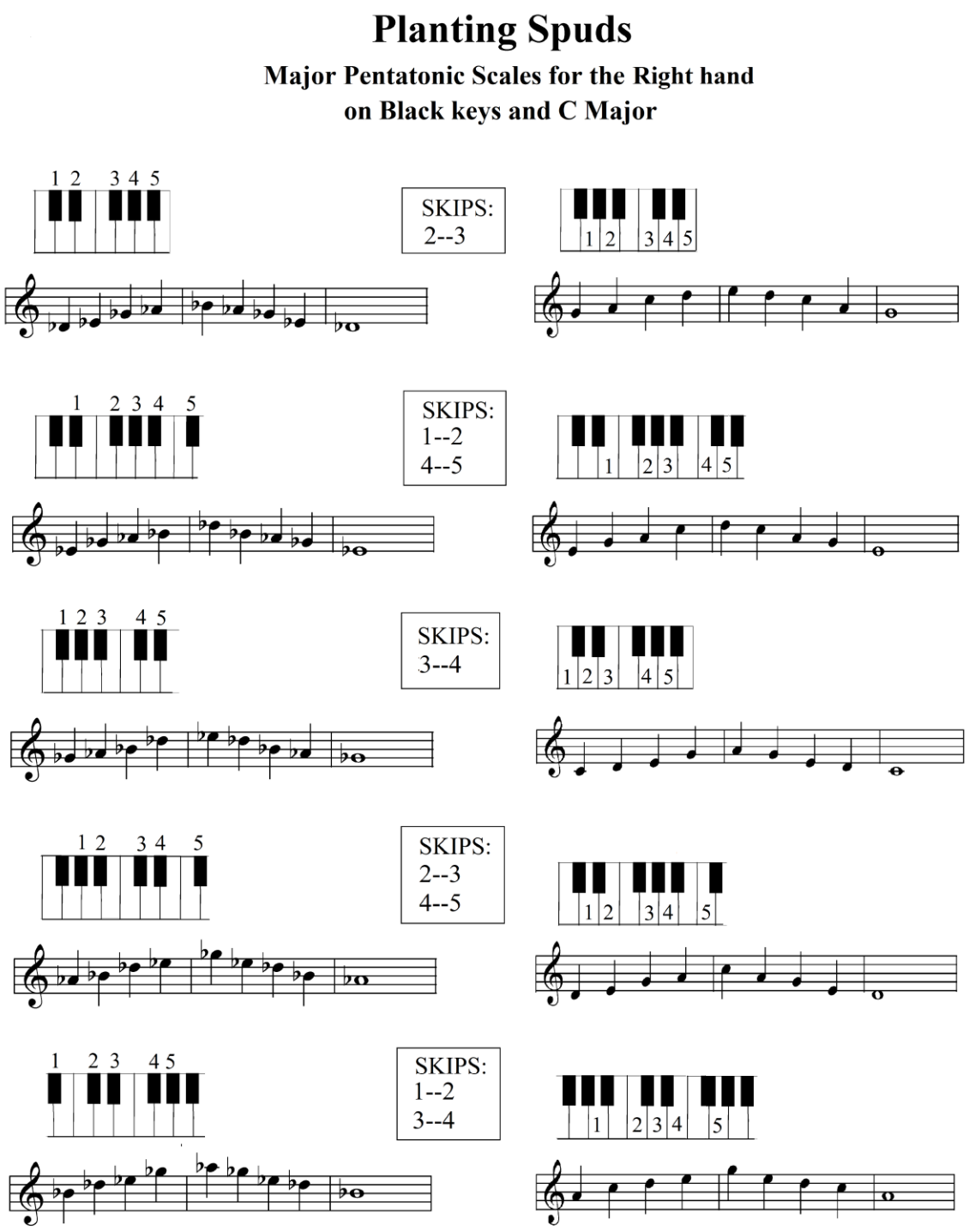
To better prepare students for inevitable moves in an easier key than earlier examples, "No F's or B's About It" is a Level 1 exercise designed to lessen this difficulty, using two

a: Inversions of the major pentatonic scale on black and white keys for left hand



Example 2.3: “Planting Spuds,” Level 1

b: Inversions of the major pentatonic scale on black and white keys for right hand

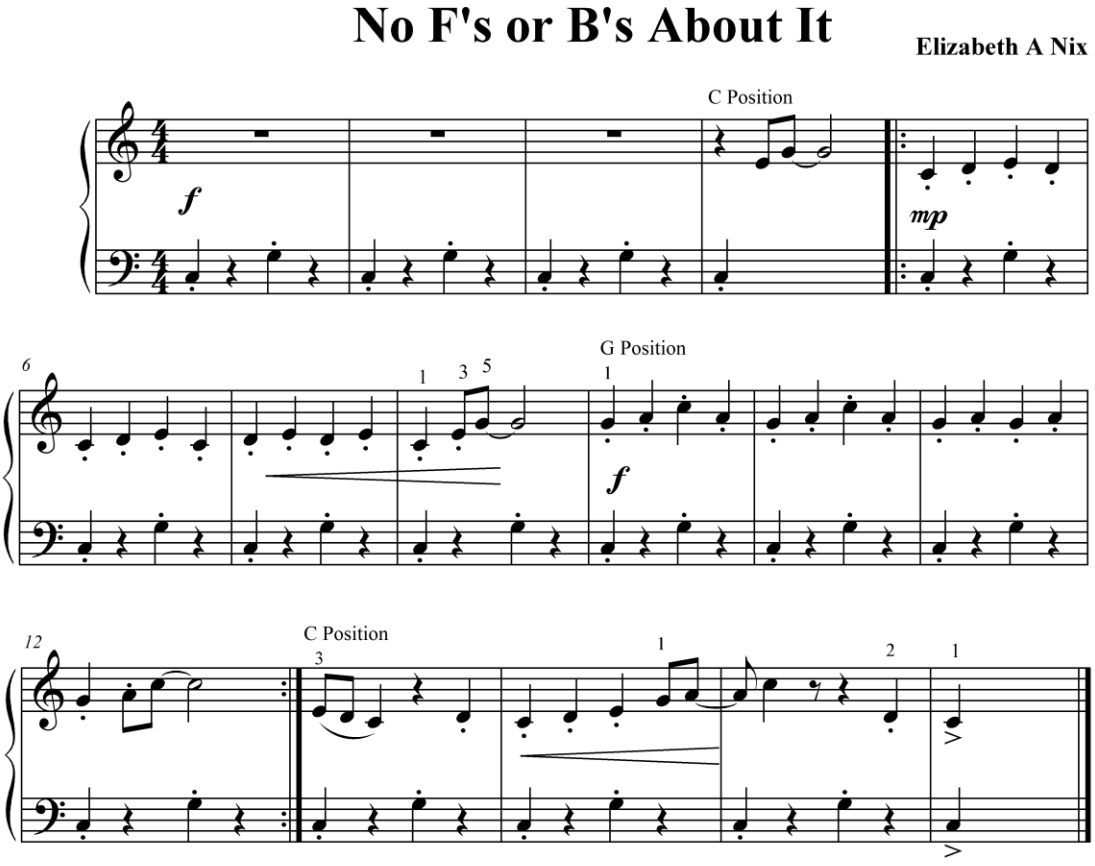


Example 2.3: Continued

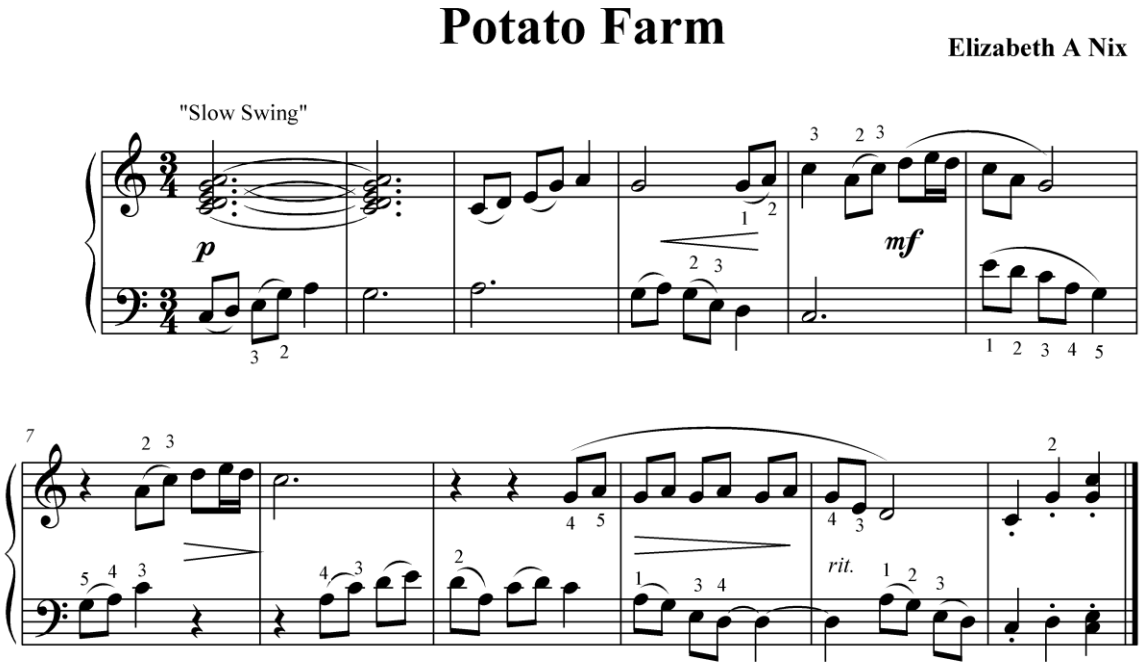
familiar positions in one hand before having to play the entire scale (Example 2.4). Students are able to play the pentatonic scale without having more than a whole step between the fingers. The piece can be executed from two familiar positions, G and C positions, enabling students to produce the scale in one hand without having to extend their hands beyond a five-finger position. The left hand remains stationary and is kept simple so that students can focus on the scale in the right hand. The title focuses on the notes of a C major scale that are omitted in this pentatonic scale, which makes sense to most beginners based on their experiences with the Ionian scale. Beyond exposure to the pentatonic scale, the technique goal of this exercise is for the right hand to relocate with ease to two familiar positions.

Once students are comfortable with skipping between fingers, "Potato Farm" allows students to put these variations into the context of a Level 2 piece (Example 2.5). The space between the fingers changes in both hands frequently making it Level 3. All transpositions of the scale have been encountered in "Planting Spuds" and the hands are rarely moving at the same time, so there is little to coordinate in "Potato Farm." I have used several two note slurs between the two fingers that are a minor third apart to ensure that students are not persuaded to hop from one position to the next or play in a tense way. By having to make smooth moves, students can understand the scale better physically since legato playing aids kinesthetic experiences more than staccato, detached playing.

Swung eighth notes also make it a little easier as the student has more time before skipping. This also ensures that the skip itself is executed quickly. Because "Potato Farm" becomes easier after students have reviewed the positions and fingerings in "Planting Spuds," these two should be paired together and played consecutively for ease and understanding.



Example 2.4: “No F’s or B’s About It,” Level 1



Example 2.5: “Potato Farm,” Level 2

Hexatonic Scales

There are two general types of difficulties when approaching six-note scales. The number of accidentals can be an issue for beginners who have not experienced more complicated key signatures, and a combination of black and white keys is always used. Whole-tone scales, the most common hexatonic scale, contain only major seconds and sound similar to Major Pentatonic because they both lack half steps. The chords that fit this scale would be augmented triads or incomplete seventh chords, which most beginners have no experience with aurally or physically. Contrary to the openness of a melodic whole-tone scale, all harmonic chords formed by the scale will create dissonance.

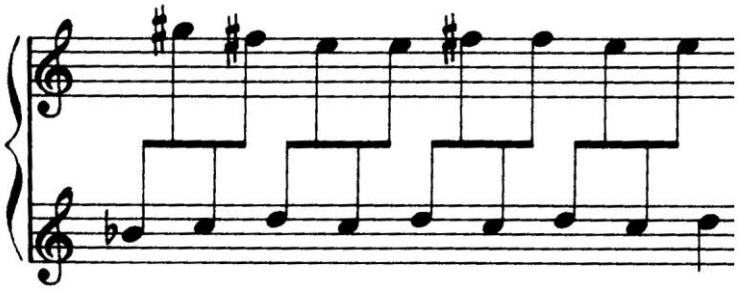
Whole-tone scales are simple enough for beginners that several method books provide whole-tone exposure.[12] The method *Piano Adventures* contains several Level 1 whole-tone pieces. "Storms of Saturn" repeats the whole-tone scale in the same position several times which fosters an understanding of the scale visually and aurally, making it easier. The Bastein method uses whole-tone scales in "Morning Prelude." These methods do not linger on the scale or explain it.

As mentioned earlier, Bastein's "The Dragon's Lair" contains whole-tone dissonances and many students find it difficult due to its aural challenges and its amount of accidentals. This piece has the most accidentals students have ever played at this stage in the method, but the biggest challenge for my students is typically an aural one since the dissonance is unique and there is no explanation. In general, a legato touch helps students to physically master scale it aids kinesthetic memory. Having to play the scale with a non-legato touch is more challenging but can be helpful, as students cannot rely simply on this kinesthetic memory and must understand the scale more visually and aurally. "Rain Rain Go Away" by Mary Magdalen Mageau is a Level 1 piece that uses whole tone scales with a non-legato touch (Example 2.6).[13] The piece looks different than what beginners would be used to as it has no bar lines and both hands are written in treble clef. Also, the combined presense of flats and sharps could be difficult for many Level 1 students.

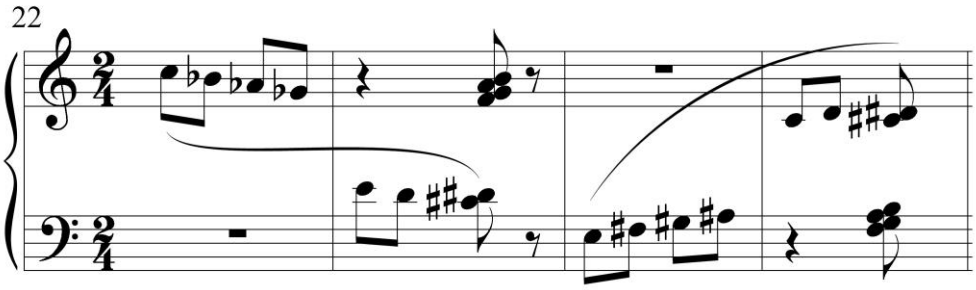
"Twelve Notes Twelve Times" is a Level 2 piece from Robert Starer's *Games with Names, Notes, and Numbers* (Example 2.7). The twelve pitches are presented in several ways using jumps by perfect fifths and perfect fourths. It also has interval patterns such as minor 6ths and minor 2nds as well as chromatic and whole-tone scales. In mm. 23-25, the notes of the

[12] Whole-tone scales are not presented in Bartók's *Mikrokosmos* until volume 5, which is mostly Levels 8-9.

[13] Mageau's "Rain, Rain, Go Away" is featured in *Adventures in Time and Space*. This collection features works from several composers and is meant to expose students to a variety of post-tonal sounds.



Example 2.6: Mageau's "Rain, Rain, Go Away"



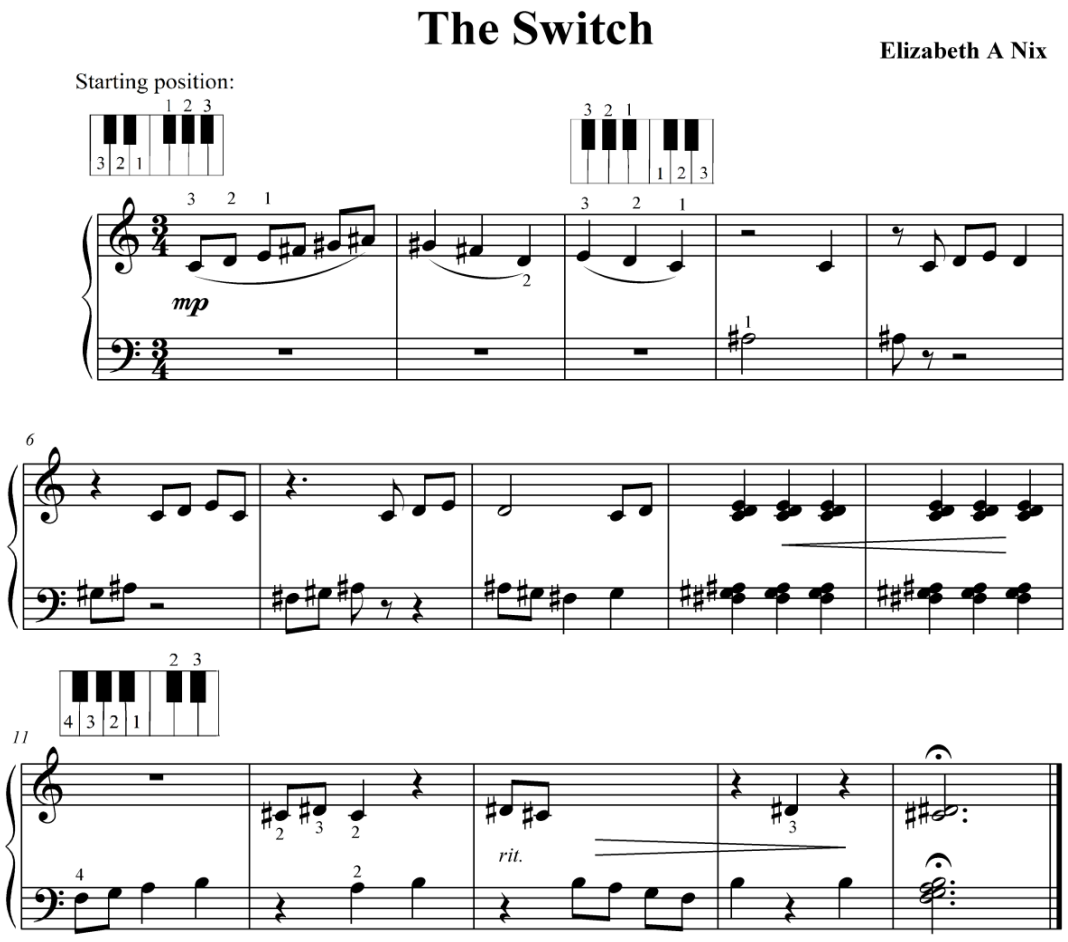
Example 2.7: Starer's "Twelve Notes, Twelve Times," mm. 22-25

whole-tone collections are given as scales and hexachords. The format of these chords makes this passage one of the most difficult in this piece. Compared to the sounds of the perfect intervals found in the opening, these measures create a large amount of dissonance. For Level 2 exposure to whole-tone scales, this piece presents it in a fairly complicated way with no fingerings and several instances where moving quickly is required. The whole-tone harmonies are transposed immediately following the scale. The resulting flip from black to white keys in both hands can be difficult to follow and very challenging for students to execute or understand.

Solutions

Due to the highly symmetrical nature of the whole-tone scale, only two unique transpositions exist. Both sound possibilities require several accidentals that fit the black-key

groupings on the piano. Whole-tone exercise “The Switch” helps students understand these two sound possibilities (Example 2.8). This exercise is Level 2 and involves three moves. The first is to move the student to a lower position, with the right hand replacing the left hand on middle C and the left hand moving to the three black keys. The second move is a complete transposition to the other whole-tone possibility. It requires movement outside of an octave which can show students that, similarly to major and minor scales, hexatonic scales can be repeated and presented in multiple octaves.

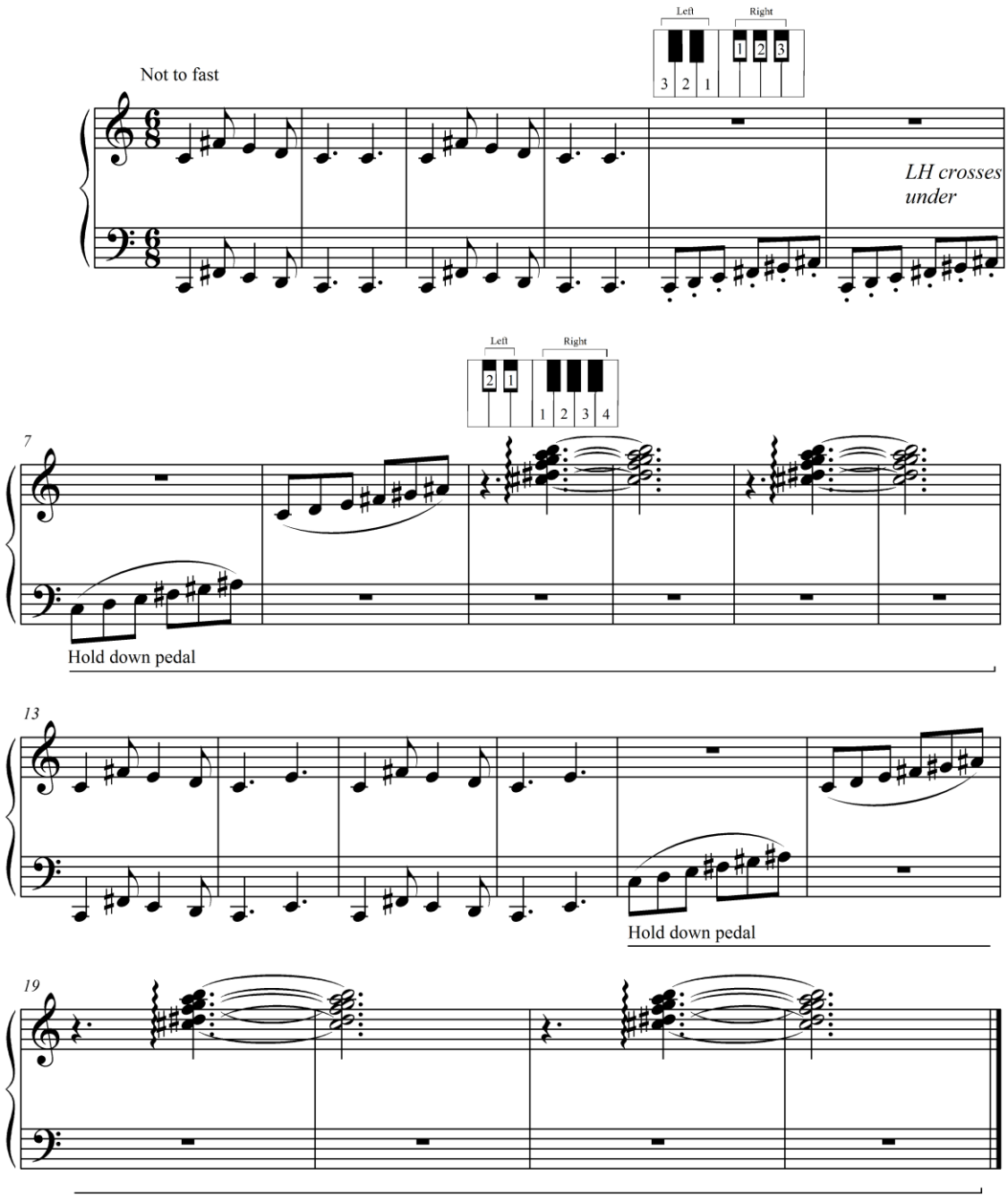


Example 2.8: “The Switch,” Level 2

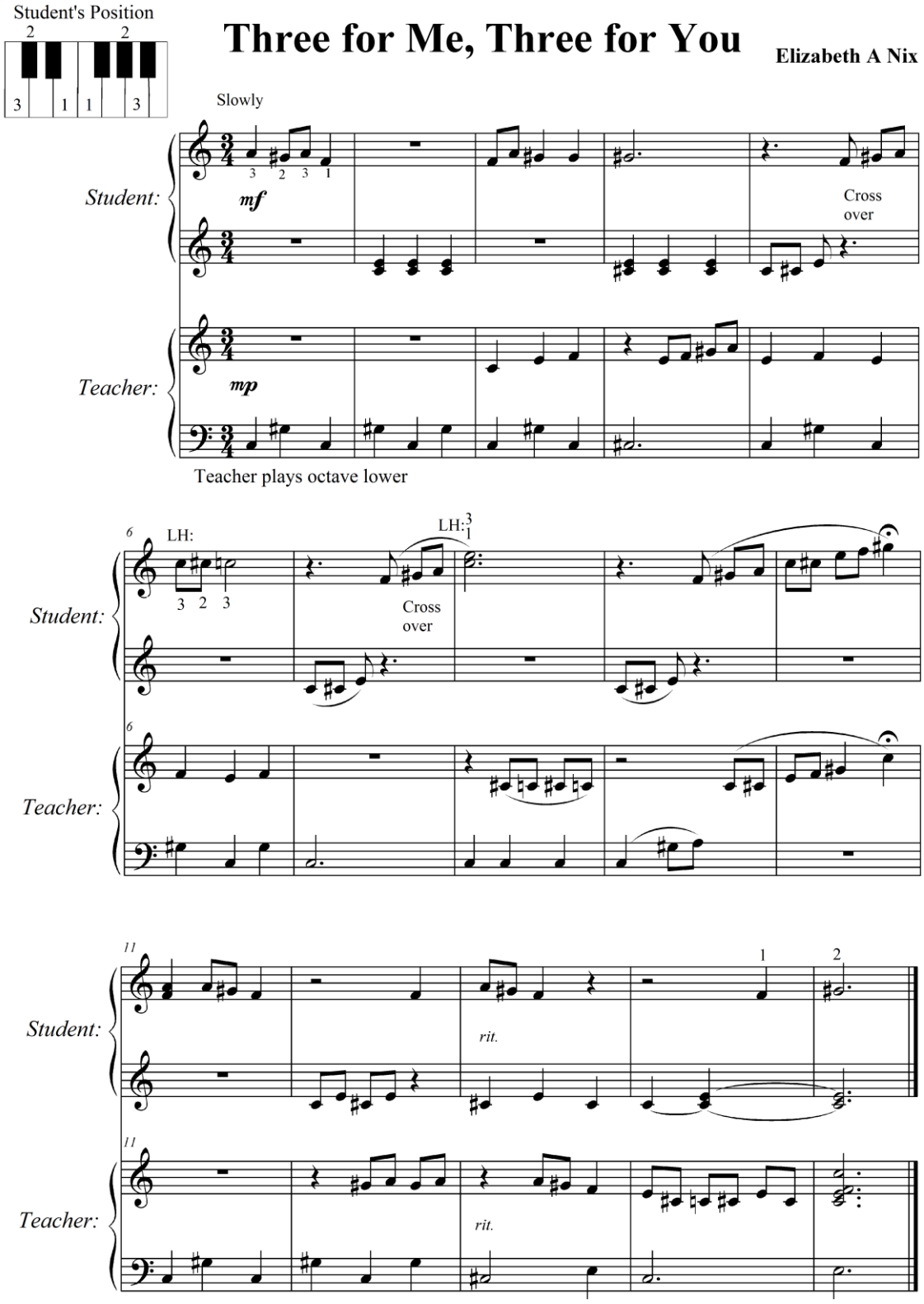
My composition "Polar Bear on Ice" also exposes students to both whole-tone scale possibilities through transpositions as a Level 2 piece (Example 2.9). Unlike the other pieces in this section, this piece uses the whole-tone scale as an effect, rolling through the scale while pedaling instead of a more tuneful role. The scale is first presented in a low octave with three white notes beginning on C and the three black keys. Students must then move to several octaves, staccato at first and then legato while holding down the pedal. Finally students must reverse the whole-tone position to the other scale in mm. 9-12 and then again at the ending. This exposes students to both transpositions of the scale.

"Three for Me, Three for You" is a Level 2 duet that uses the augmented scale (an alternate hexatonic scale) and splits the six pitches between the hands, each hand responsible for three pitches (Example 2.10). It is written in the form of a duet so that the student's part can remain as simple as possible and the teacher's part can expose students to unfamiliar augmented harmonies. As each hand is responsible for half of this hexatonic scale, the hands can mirror each other in shape. This is the simplest way for students to play this augmented scale. This scale is easier to hear is it spans over an octave, so there are a few cross overs involved which makes it Level 2. The hand positions are unusual, but not challenging to locate or move within. They are the same in each octave and the outer notes of each position are a familiar major third apart, either C and E or F and A. The unusual hand shape is formed from the accidental in the middle but is universal in every octave, making it easier to find.[14]

[14] The exposure to this unusual position prepares students for many of the passages they will encounter in the chromatic piece, "Playing in Ditches" where students have to move between major and minor thirds frequently.



Example 2.9: “Polar Bear on Ice,” Level 2



Example 2.10: “Three for Me, Three for You,” Level 2 duet

Church Modes

There are two approaches that are commonly used when introducing modality to a beginner: "altered pitch" and "moved tonic." The "altered pitch" approach works best if the student understands major and minor scales, and therefore would be able to alter the diatonic scale by adding or subtracting an accidental normally found in that key signature. The "moved tonic" approach works best for students who understand that various placements on the keyboard will result in different sounds. I find the latter approach easier for younger students as their understanding of keys is really just a familiarity with hand shapes in five-finger positions. Students who are very comfortable in C position may prefer the altered pitch method as it may require less moving. Teachers can choose which approach works best for each student on a case by case basis.

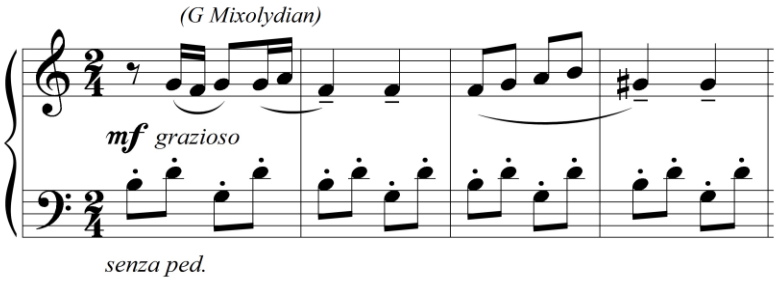
Bartók introduces modality very early in the *Mikrokosmos*. Performance notes in *Mikrokosmos* include presenting each mode using the "altered pitch" approach. However, modes in the *Mikrokosmos* are physically produced using the "moved tonic" approach by shifting position in keys beginners would be familiar with, typically on white keys. *Mikrokosmos* is meant to be "progressive studies" so the difficulty increases as the studies continue. Two modes, Phrygian (No. 7) and Mixolydian (No. 11), are represented early and are Level 1.[15] Dorian mode is first used in No. 32 (Level 2), and Lydian in No. 37 (Level 3). Locrian mode, the least similar to a diatonic scale, is explored in No. 63 at Level 4.

In Vincent Persichetti's "Canter" from *Parades,* the exchange of modes is subtle, but useful for exposure to modality. This piece is an excellent example of modality for a Level 2

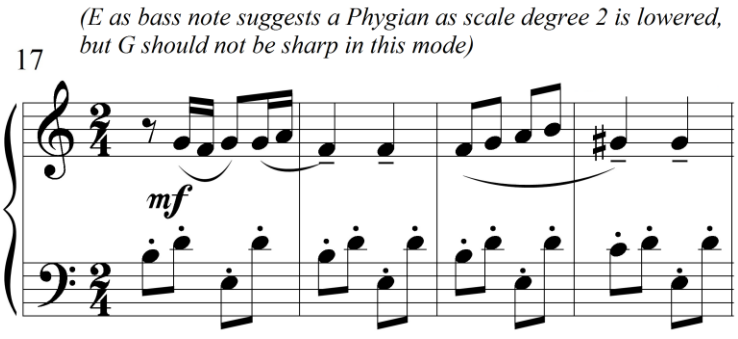
[15] There are many pieces in the *Mikrokosmos* and so not all of them are leveled by in Magrath. However, pieces reach Level 4 around no.40 in volume 2. In volumes 1 and 2, the following modes are found: Dorian (no.32 and no.44), Phrygian (no.7, no.34, and no.46), Lydian (no.37 and no.55), Mixolydian (no.11 and no.40), and Locrian (no.63).

player. The left hand begins outlining a G major chord, creating Mixolydian mode as the right hand passes through F-naturals (Example 2.11a). The addition of F-sharps and G-sharps creates E Ionian. The "B" section is in A Ionian, which makes the modality of the recapitulation more noticeable. Measure 17 is like the beginning, except with a bass note E instead of G. This left hand position in the recapitulation is more difficult than the opening because it now involves a seventh. The shifted bass note brings focus to the change, creating a mode alteration resembling Phrygian mode. The presence of G sharps as the only accidental can throw off the listener with E as the bass note (Example 2.11b).

a: Opening passages using G Mixolydian



b: Lowest note becomes E in the left hand implies Phrygian qualities



Example 2.11: Persichetti's "Canter" from *Parades*

Solutions

The problem using either approach is students do not really gain a comprehensive understanding of modality because they are not thinking of it as a new scale entirely. They are either thinking of it as a diatonic scale with a wrong note present, or a new placement of their hands on white keys. With the original approach they are also thinking in the diatonic key, with an "altered tonic" or new lowest note. With the other they are thinking in the diatonic key with a "strange note" to remember. To help students to develop a more complete understanding of modality, I have composed a set of modal pieces using both methods. For the altered pitch method, I used C major or A minor as the base scale to be altered so that the only accidentals present are the altered scale degrees unique to each mode. I then transposed the pieces so that only white keys are used for the altered tonic method. Teachers can pick the approach that they think best fits the student's abilities and level of understanding.

Once students master the approach that feels most natural to them, they can try the other approach for comparison. This allows students to experience the mode in two ways: on all white keys for aural exposure and to gain familiarity of the piece, and with accidentals to "see" the mode. After attempting both approaches with one of these modal pieces, teachers and students can decide which approach was easier for them before determining the best way of introducing the remaining modes.

"Lydian Locust," "My Day Was So Dorian," "Phrygian Pharaoh," "Mixolydian Maniac," and "Locrian Festival" are Level 2 exercises (Examples 2.12-2.16). Dynamics, fingerings, and articulations are the same in both versions. Within each mode, I bring out its distinguishing features by using accents on "altered" pitches, lingering on them, and repeating them frequently so they are aurally prominent. Hearing and executing each mode in

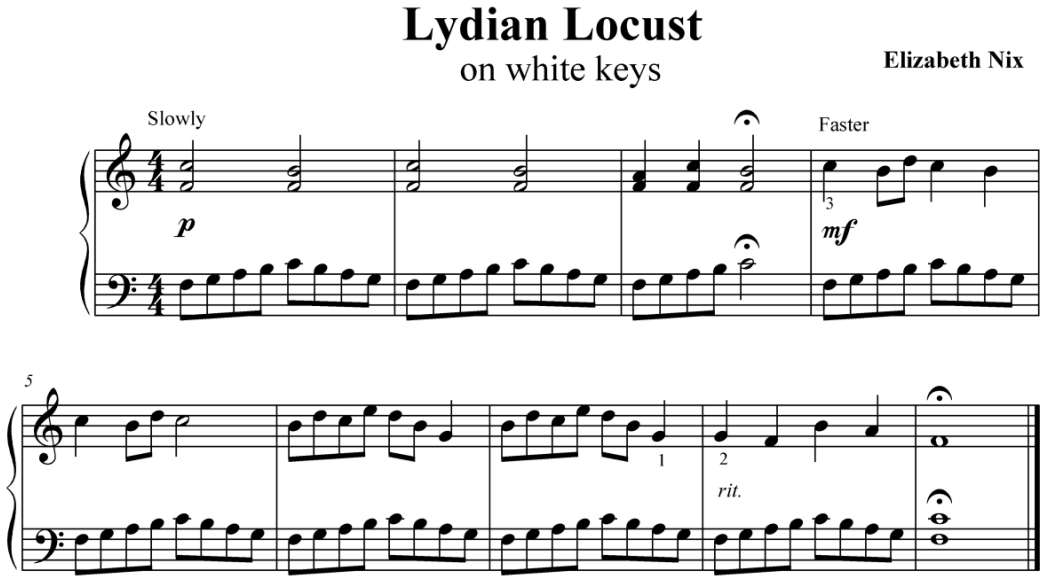
two keys can make a huge difference in a student's overall acceptance of modality as a separate entity.[16]

Once students have a better general understanding of modality and find the sounds less unusual, "World Travels" is meant to move through several modes within one piece. This Level 3 duet is a means to expose students to the unique sounds of all modes within one movement (Example 2.17). The goal of this piece is for students to adjust to each new mode, both aurally and physically, and to recognize that shifts in the serving tonic or "final" will change the relationships between the notes within the same key signature. I decided to use accidentals instead of simply shifting position so that more advanced Level 3 students can recognize the modes on their own. I added one accidental at a time so that the movement through the modes is made easier. It begins and ends in different transpositions of Locrian mode.[17]

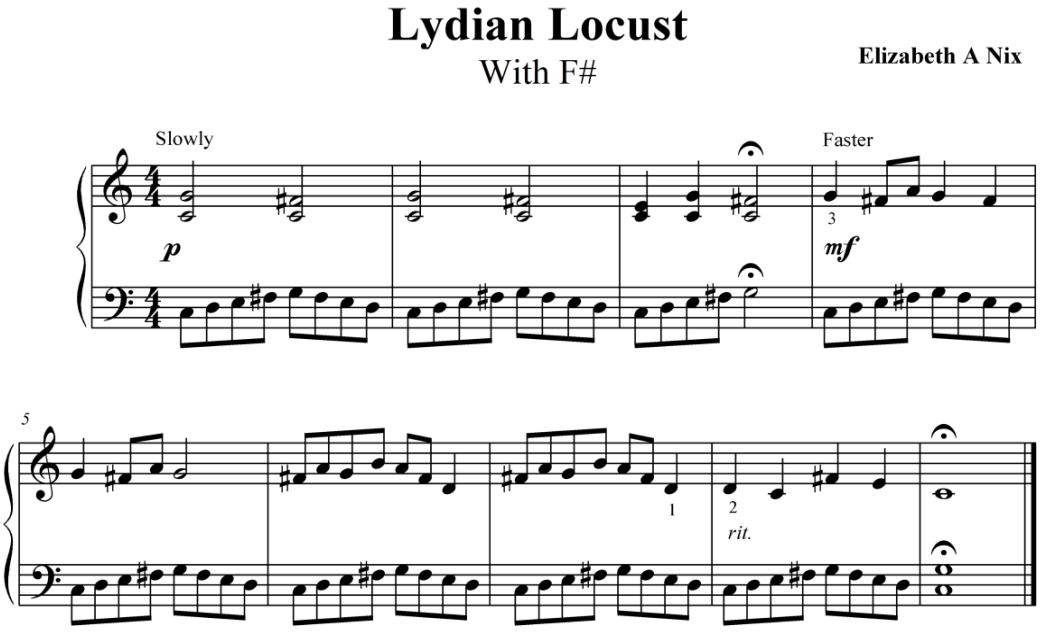
[16] Some of my students have found the altered pitch approach to be easier because the note that sounds most unusual is the accidental, and therefore easy to locate. For most students I feel like the altered position approach is easier to execute, especially for "Locrian Festival," where the presence of two accidentals was unavoidable. I kept the accompaniment for "Locrian Festival" simple so that it is not considered the most challenging of the modes, as it is not commonly seen in children's pieces.

[17] Thompson refers to the transposition of church modes to pitches that are not white keys as a more "modern usage" of modality, stating that the original church modes would have been built on white notes. (21)

a: F position with all white keys, no moves required

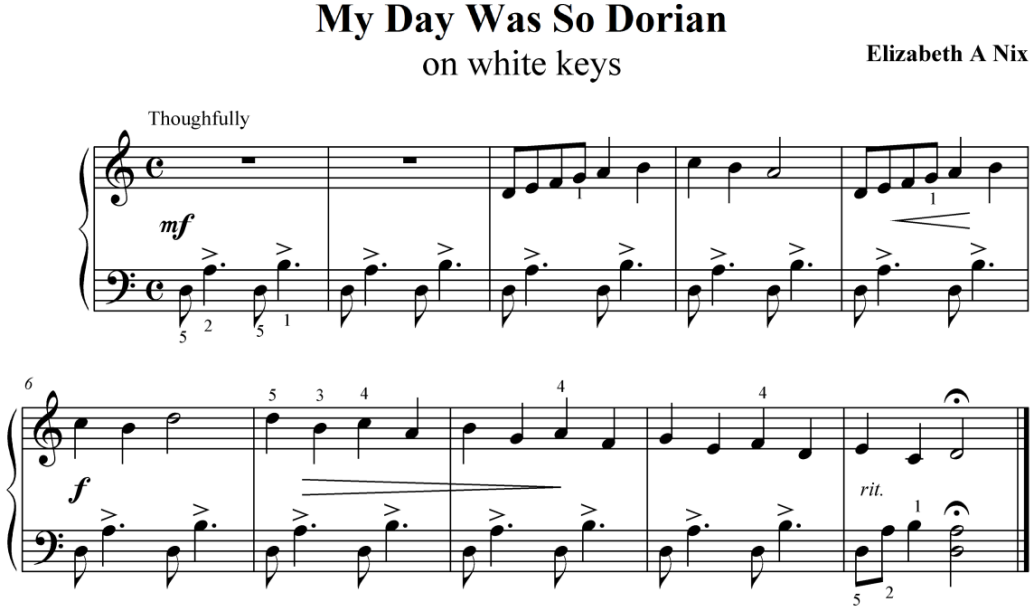


b: In C position with raised forth scale degree, F sharp

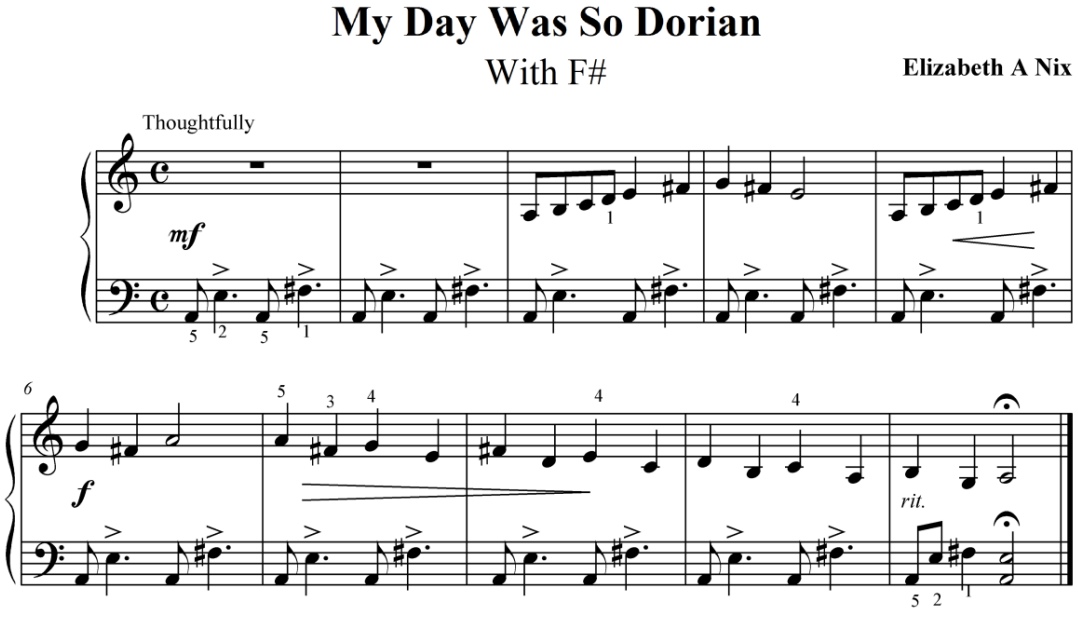


Example 2.12: “Lydian Locust,” Level 2

a: Dorian mode with normal scale fingering required in RH and mobile thumb in the LH

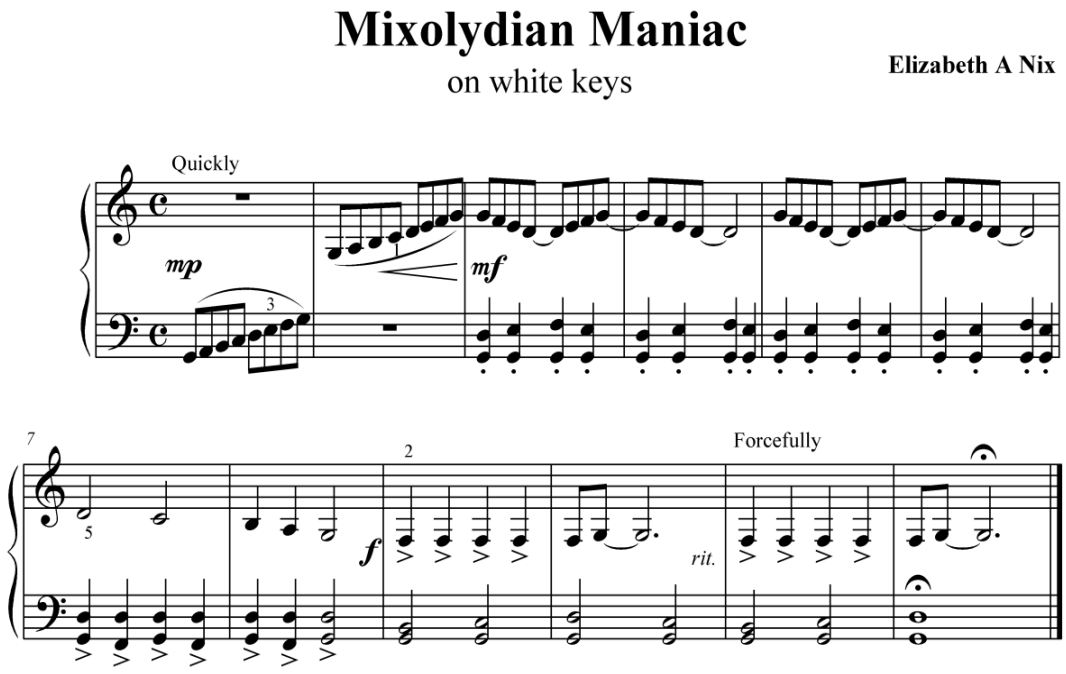


b: A minor position with a raised 6th scale degree, F sharp

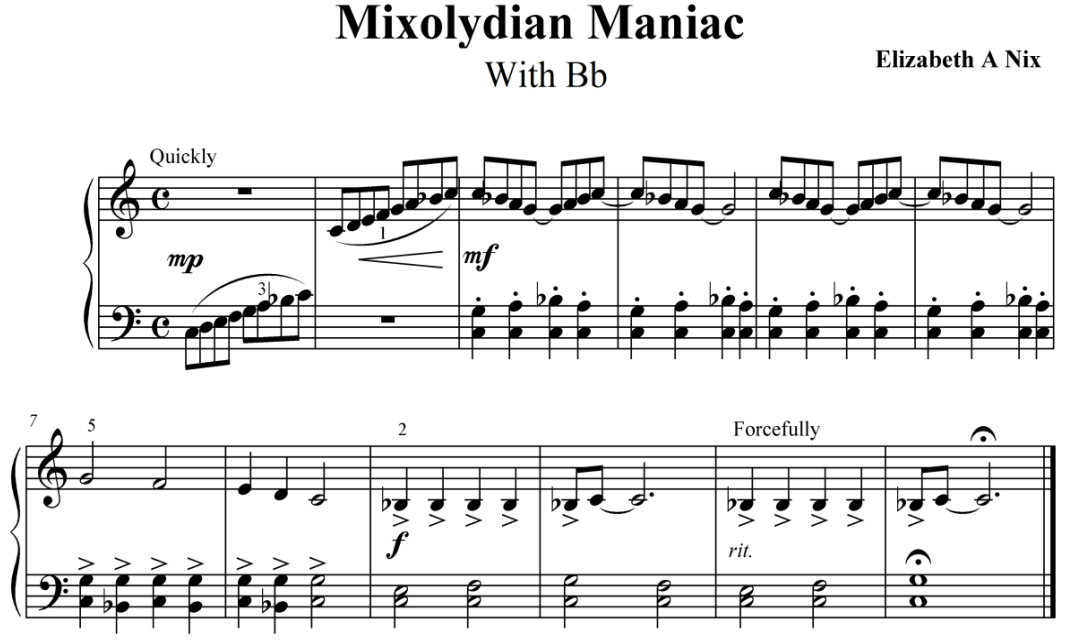


Example 2.13: “My Day Was So Dorian,” Level 2

a: Mixolydian mode with entire scale and lowered 7th played frequently

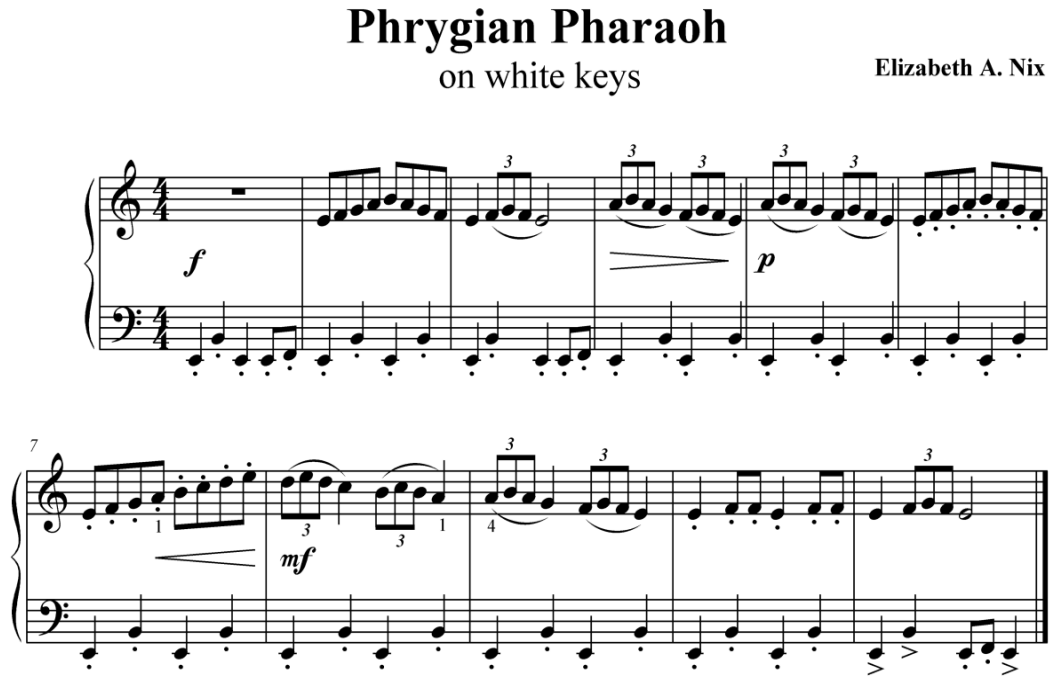


b: Familiar position similar to C major with lowered 7th scale degree, B flat

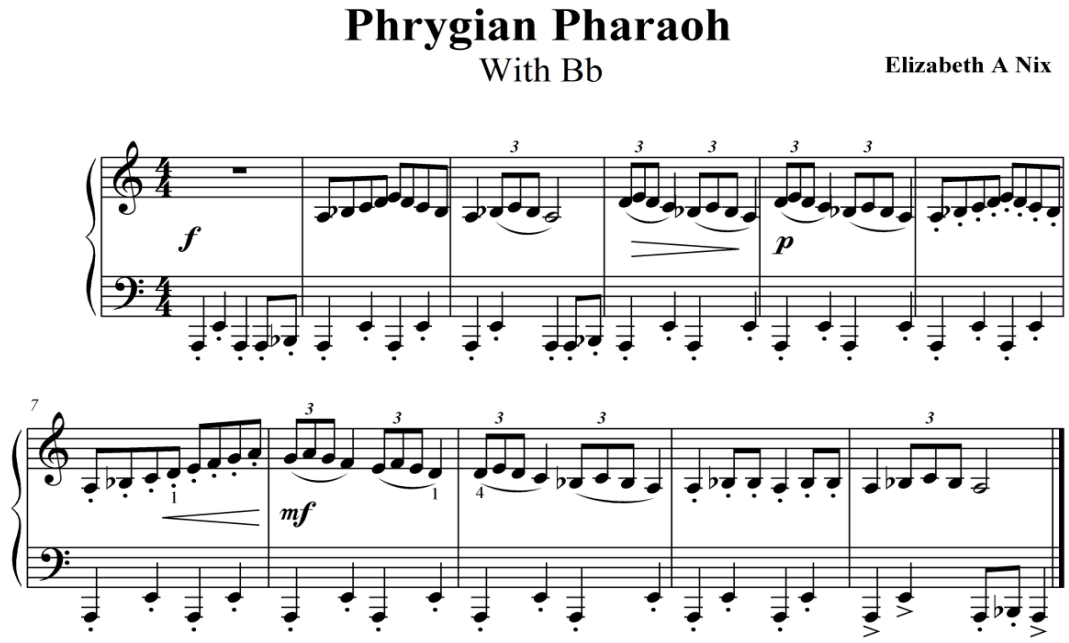


Example 2.14: "Mixolydian Maniac," Level 2

a: Strong Phrygian presence in E position with no accidentals

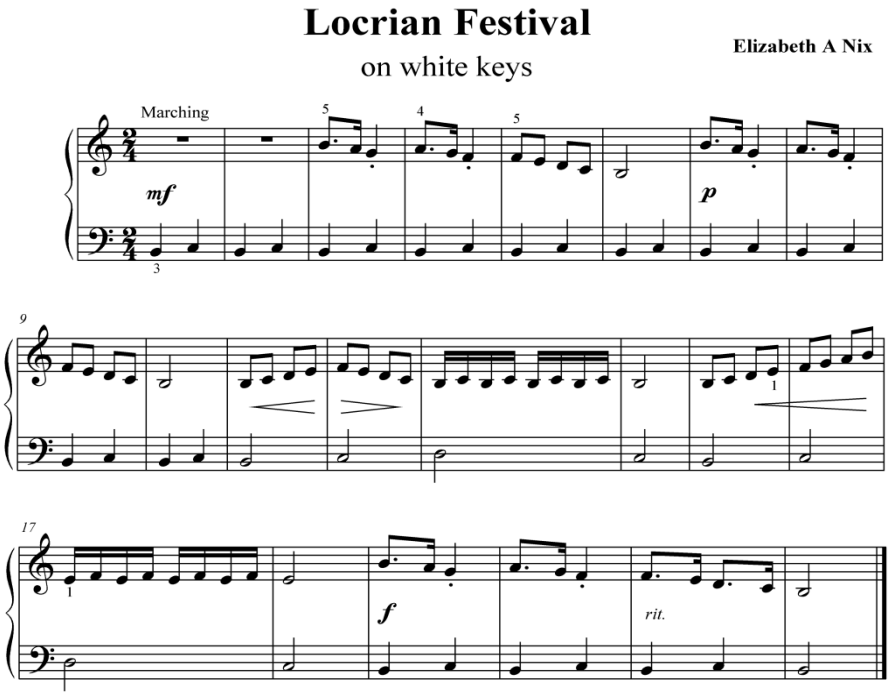


b: A minor position with lowered 2nd scale degrees, B flat



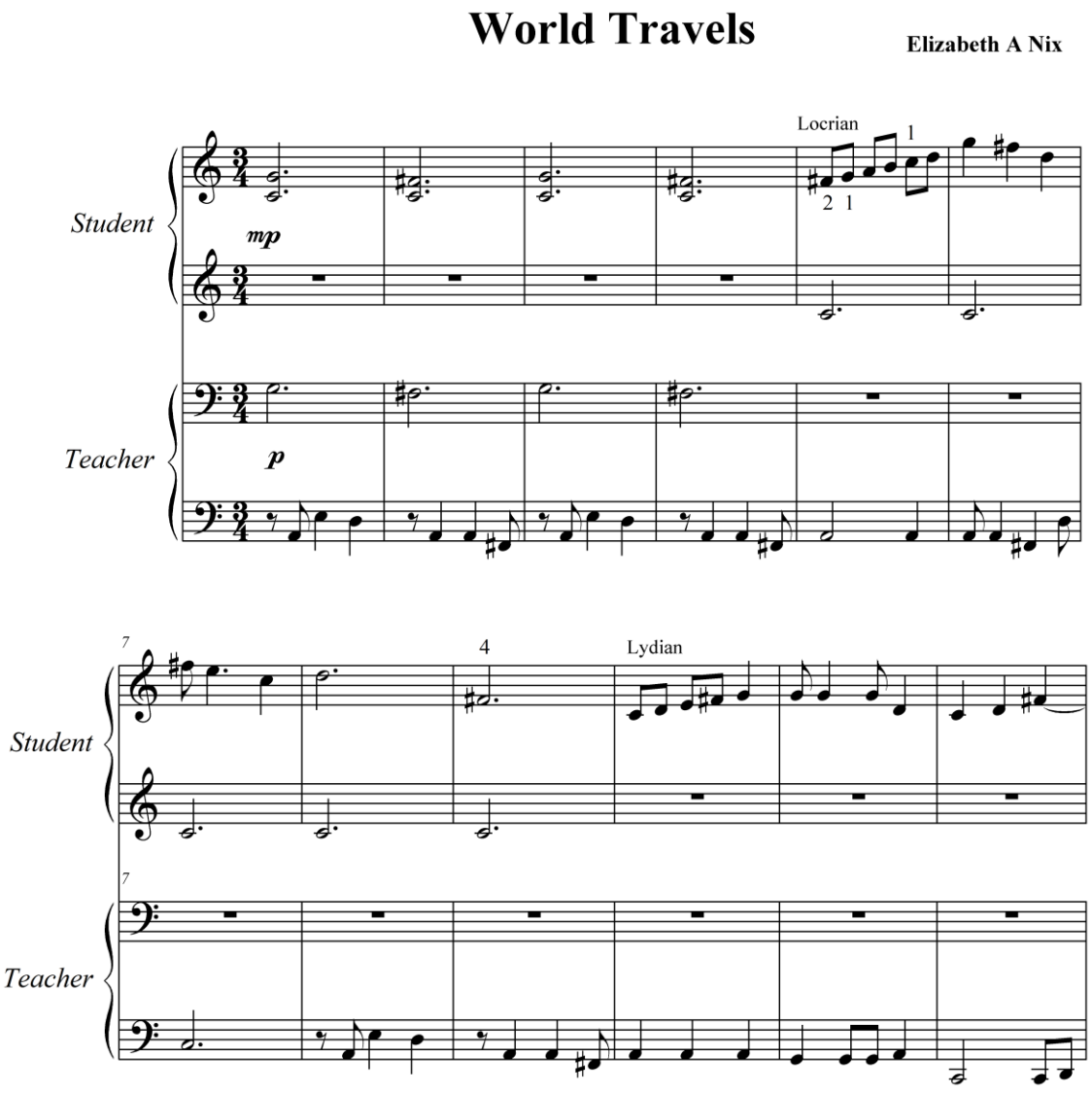
Example 2.15: “Phrygian Pharaoh,” Level 2

a: Locrian mode is on all white keys with B as tonic

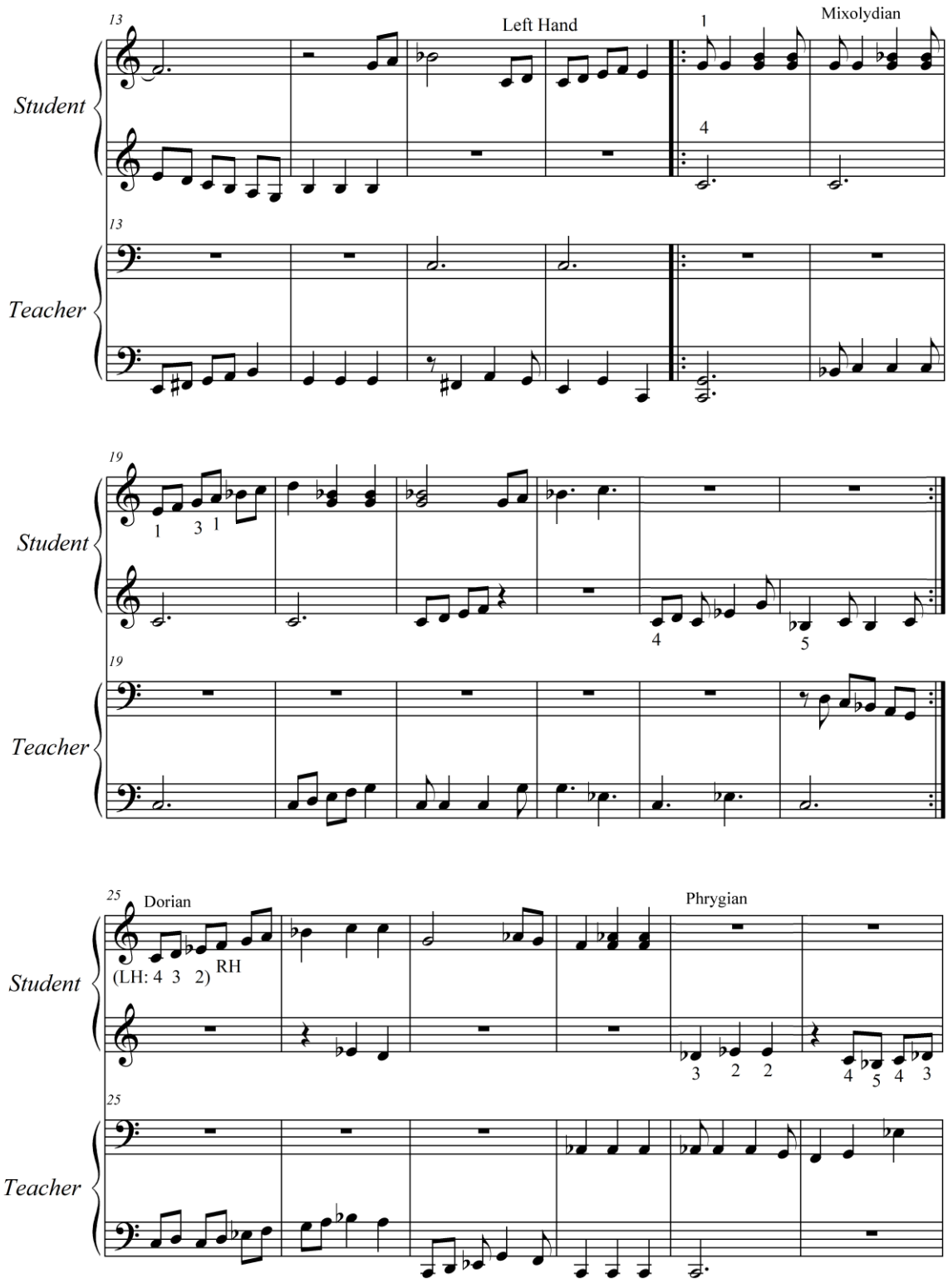


b: A minor position with lowered 2nd and 5th scale degrees, B flat and E flat

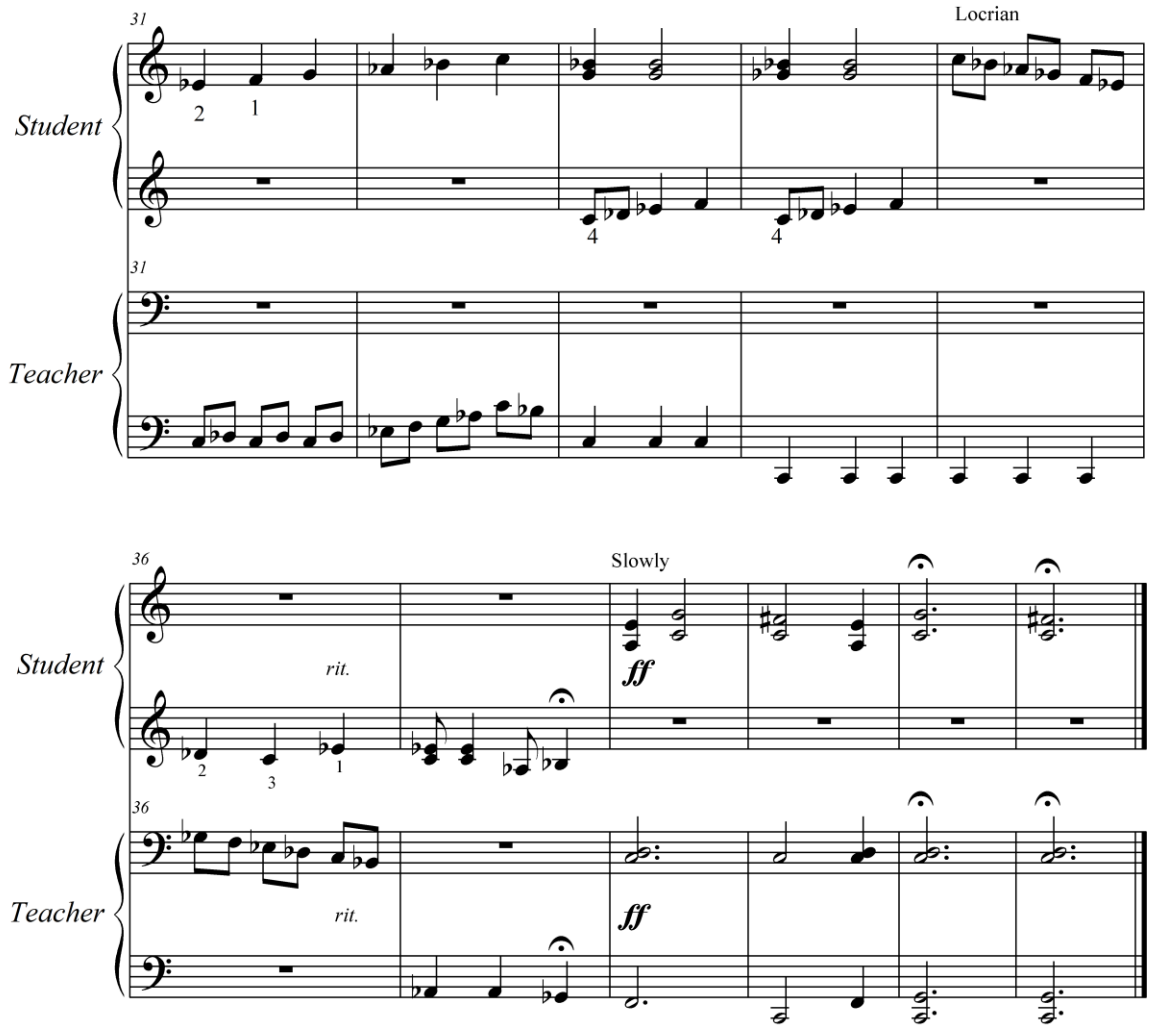
Example 2.16: "Locrian Festival," Level 2



Example 2.17: “World Travels,” Level 3



Example 2.17: “World Travels” continued



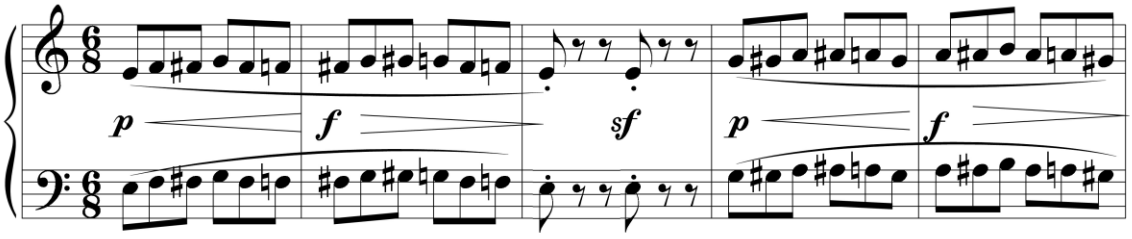
Example 2.17: “World Travels” continued

Chromatic Scale

Finding chromatic scales within Level 1 literature is challenging for several reasons. Most Level 1 players have not experienced finding all twelve pitches or reading music with a high number of accidentals. Beginners also have not experienced music lacking points of tonal harmony or the amount of potential dissonance created by consecutive semitones. They have also never executes more complex fingerings such as finger crossings.

Bartók first uses the chromatic scale in volume 2 of *Mikrokosmos*. No. 54 "Chromatic" is the easiest chromatic piece in the volume and is quite difficult at Level 3 (Example 2.18). Most of this volume is Level 4. The most difficult factor is that the scale is to be played in octaves. It also ascends and descends several times, therefore changing directions frequently and effecting the fingering. Although this piece is meant to be an introductory piece to the chromatic scale, it is not suited for beginners, especially at the recommended speed of this piece.[18]

One piece from Alexandre Tansman's *Happy Time,* "Both Ways," features chromatic scales and is Level 2. The chromatic scale is presented in slow-moving, whole notes in each hand (Example 2.19a). Although it is called "Both Ways", the scale is descending when each hand plays it. Parallel movement of both chromatic lines makes it less challenging aurally, but not necessarily physically. Fingerings for chromatic scales are similar if the hands are mirroring each other (going either towards or away from the body) so the fingerings for both hands is the same (Example 2.19b). The fingering must be observed when the student has to navigate through pairs of two consecutive white keys.

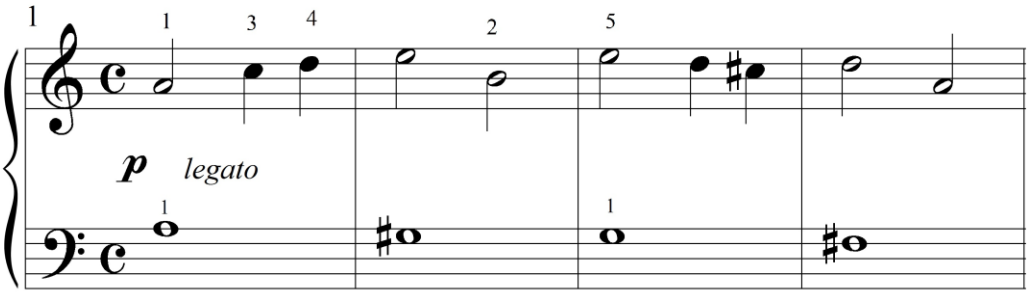


Example 2.18: Bartók's No. 54, "Chromatic" from *Mikrokosmos*, mm. 1-5

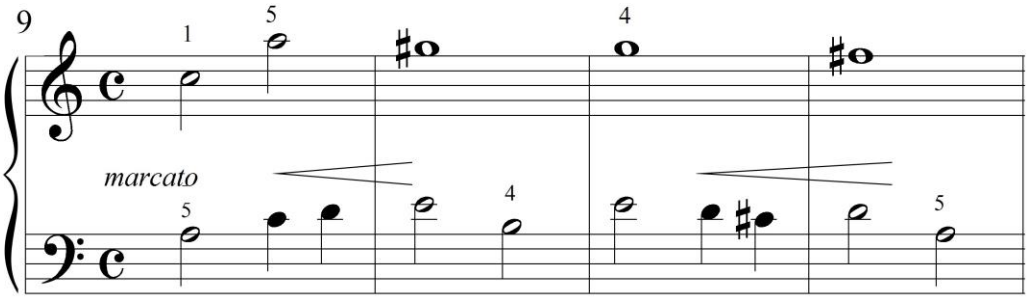
[18] Later appearances of the chromatic scale in volume 2, such as No. 64 "Line and Point," are not as technical, but significantly more advanced in texture and coordination.

In Robert Starer's "Twelve Notes Twelve Time," pitches of the chromatic scale are presented in several ways, some of which have been mentioned in this chapter (Example 2.20). Compared to Tansman's "Both Ways," which is also Level 2, this piece is significantly more difficult. For the most part, the twelve pitches are presented through the use of varied intervals (thirds, fourths, and fifths), divided in half as two hexachords, and for a few measures, as moving semitones. Part of what adds to the difficulty of this Level 2 piece, is that the chromatic scale is presented in such a variety of ways. Measures 18-21 contain the chromatic scale in the form that beginners would recognize. The difficulty of this passage comes from canonic entries and lack of fingering assistance.

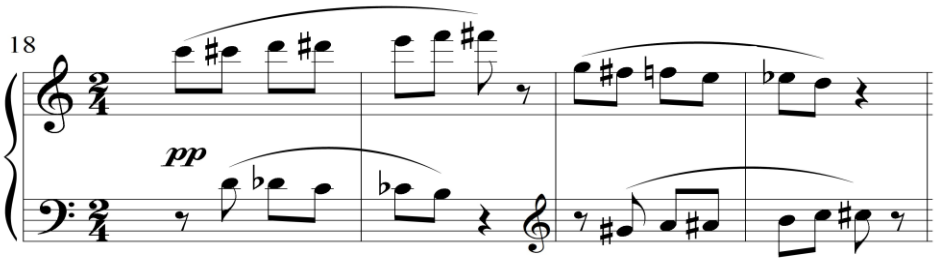
a: Descending chromatic scale in the left hand, mm. 1-4



b: Chromatic material in two independent lines, mm. 9-12



Example 2.19: Tansman's "Both Ways" from *Happy Time*



Example 2.20: Starer's "Twelve Notes Twelve Times," mm. 18-21

Solutions

It is significantly easier for hands to mirror each other than to play in octaves. Mirroring passages enable a player to focus on the overall shape and fingering of the passage without the notes themselves being too distracting. Not all scales can be executed this way, as the placement of accidentals is often in different locations if other scales were played in opposite directions.

"Chromatic Mirror House" is a set of Level 1 exercises focusing primarily on chromatic fingerings in both hands (Example 2.21). The octave scale is broken up into sections so that students can find similarities between areas of the octave both ascending and descending. It also exposes students to spelling differences based on the directions of the scale, using sharps on ascending lines and flats for descending lines. Once the smaller exercises are mastered, the entire octave is much easier to navigate. Students are instructed to play the segments several times and in any order they wish, which adds an aleatoric element which will be discussed later. This can also help students attain foresight to properly approach chromatic passages in the future.

Chromatic scales are difficult enough for beginners when one hand has to produce it. Typically in this early literature, if both hands have to produce chromatic scales, they are

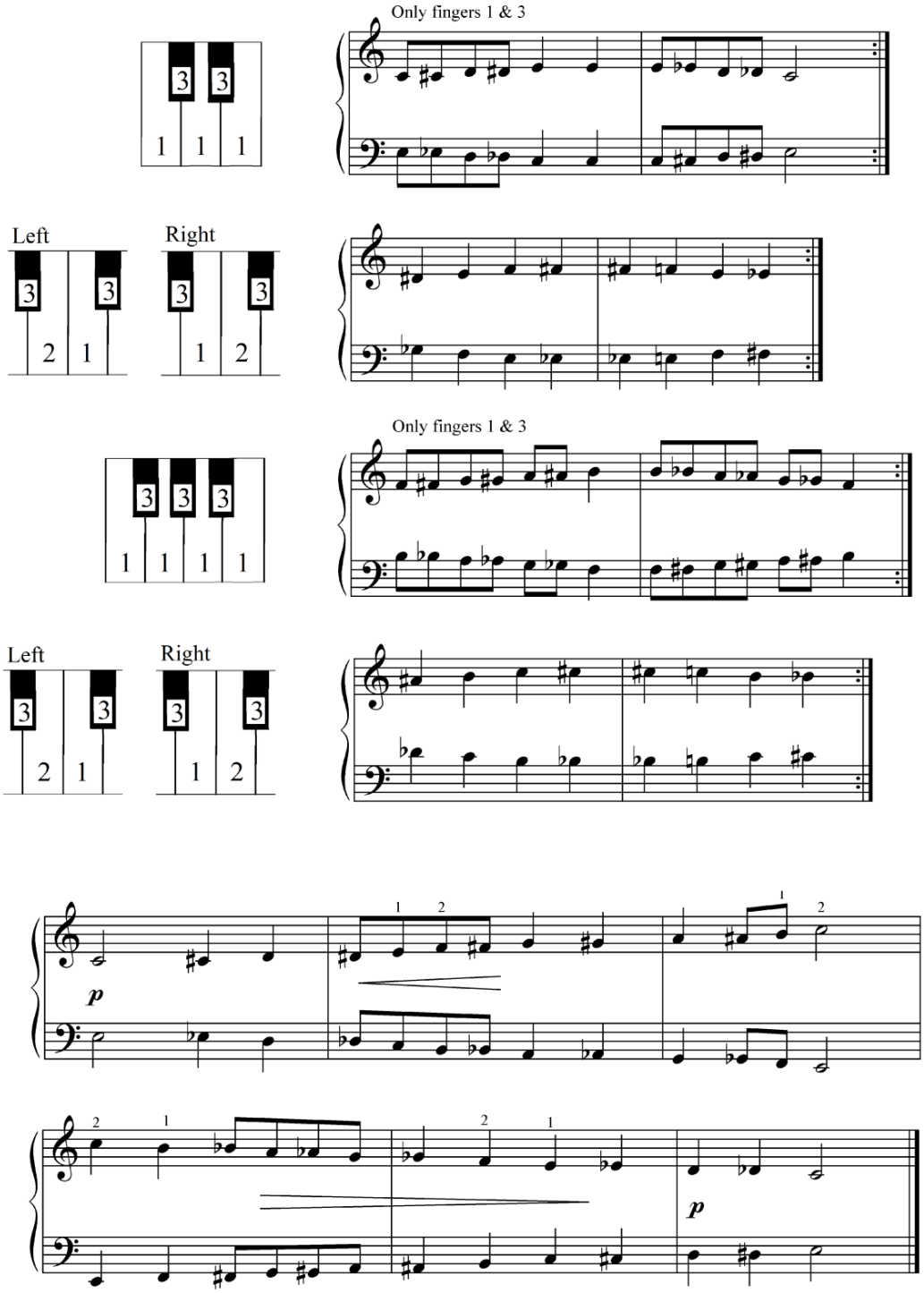
rarely played together. By making one hand accompaniment and the other a chromatic melody, students can focus on the most challenging aspect. In my composition "Jumping Fish," both hands play chromatic material, but still maintain primary and secondary roles (Example 2.22). The left hand plays a chromatic scale in an accompaniment roll with notes that are long, descending, and predictable. The right hand jumps around to short chromatic passages. While the right hand is more challenging than the left, it remains Level 2. The right hand "jumps" are always from finger 1 to finger 5 and are to notes which Level 2 players are familiar with. This helps students to complete the chromatic portion of each passage and land on their 1st finger so that the fifth can be played comfortably.

"Playing in Ditches" uses the same chromatic shape, direction, and rhythm in each hand (at different times) so that hands are mirroring each other for ease (Example 2.23). Although only one hand has chromatic material at a time, some coordination is needed between the hands, making it Level 3. The hand positions will be familiar to students who have played "Three for me, Three for You" because the augmented scale position is used for much of the accompaniment to these chromatic passages. Changes in the right hand rhythm coincide with stops in the chromatic scale, except in m.10 where the left hand continues a descending line. The right hand passage in mm. 11-12 uses four-note fragments of the chromatic scale, which are all the same shape (a representation of a ditch). The scales are made easier physically by always moving away from the body. The right hand scales are ascending and the left hand scales are descending, resulting in an easier fingering than moving inward.

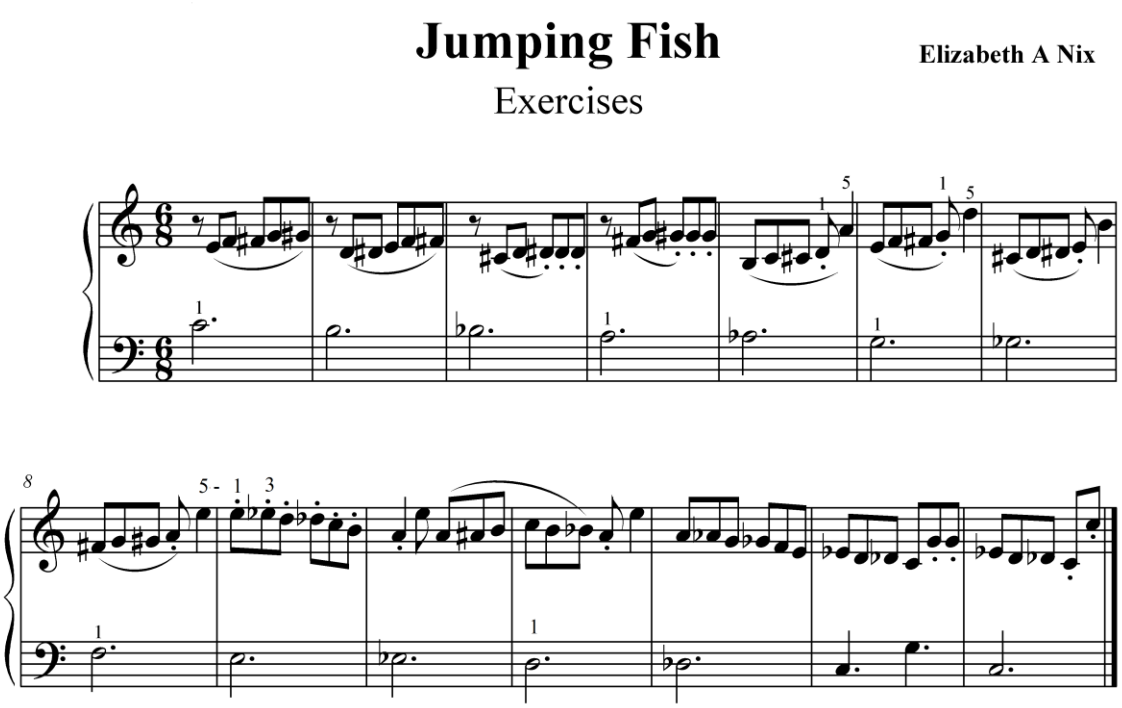
"Rock Chromatic and Roll" is a Level 2 duet for teacher and student that requires students to play mirrored chromatic scales beginning on E and F (Example 2.24). All chords that

Chromatic Mirror House

Play these segments in any order and as many times as you like.



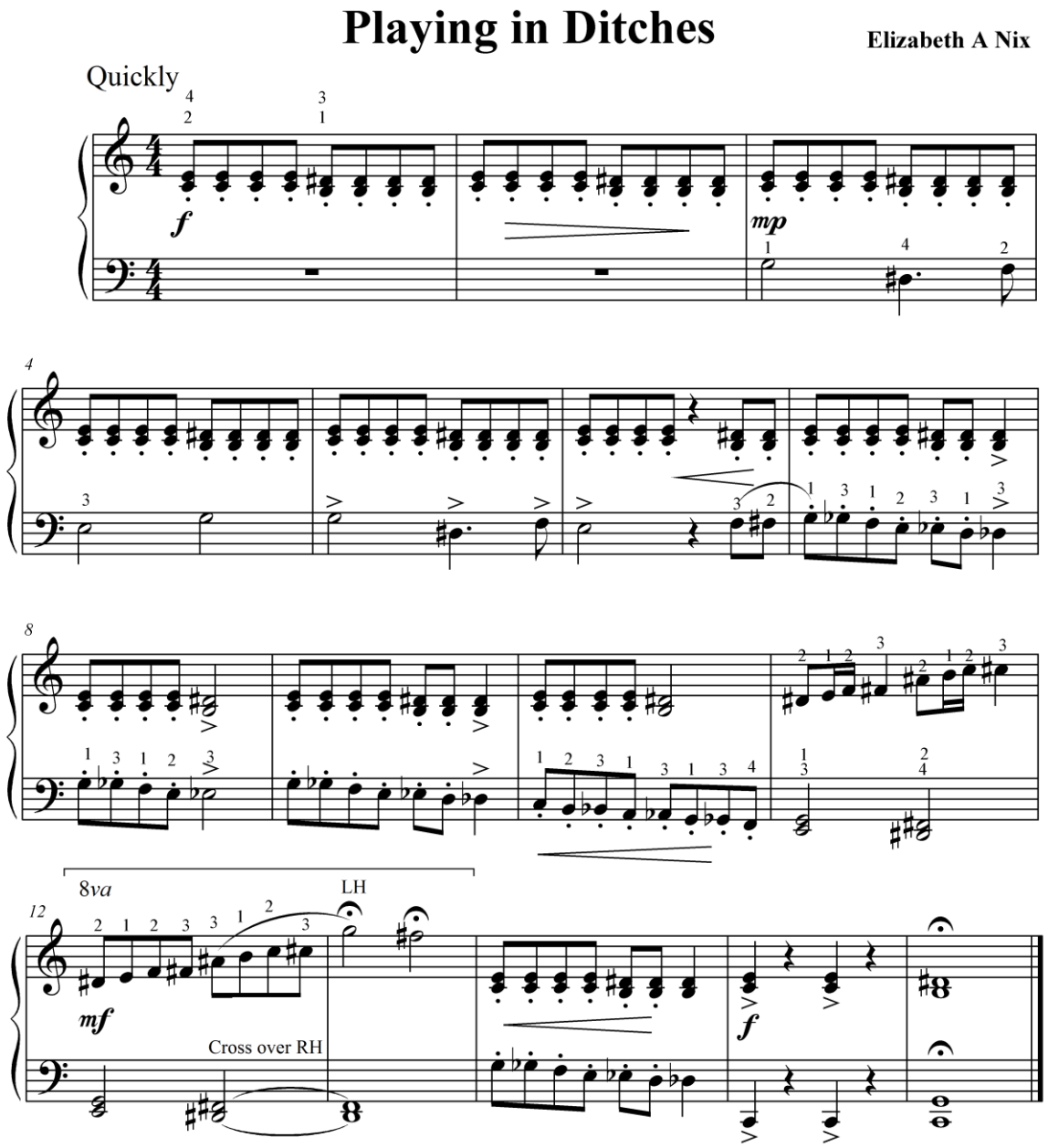
Example 2.21: “Chromatic Mirror House,” Level 1 exercises



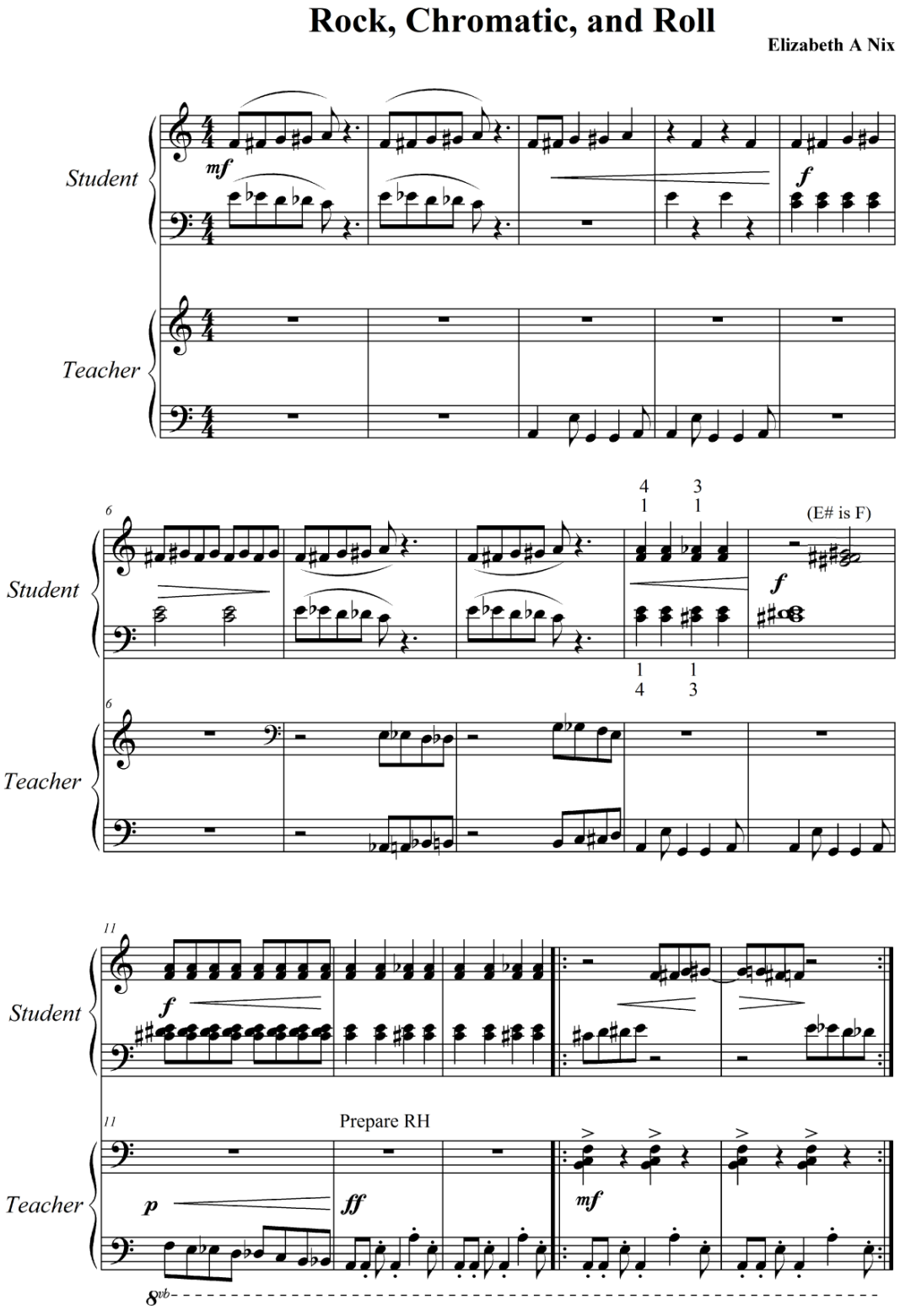
Example 2.22: “Jumping Fish,” Level 2

students are required to execute involve black keys that are also mirrored in the hands. It also makes exposure to chromatic dissonance easier as students are not responsible for producing all of it. The same spellings are used throughout the student’s part so that the piece can accurately spell accidentals based on whether they are ascending or descending. The use of rock rhythms in the teacher’s part makes it more energetic, while the rhythms in the student’s part remain appropriate for a Level 2 player. Chromatic scales for the student can be presented to students in a number of ways before approaching this piece due to the hands being a minor second from each other. They can be played consecutively to form a larger chromatic scale without having to relocate, or they can also be played at the same time. Neither approach is too physically demanding. There is a picture provided to make the

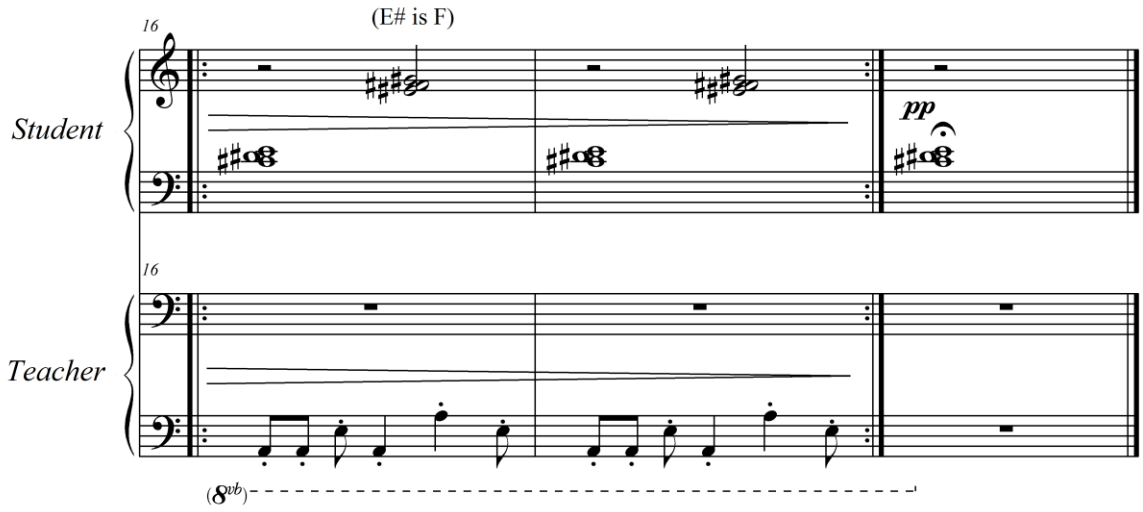
chordal sections easier on the beginner's eyes if they are not accustomed to seeing two adjacent sharps in one chord.



Example 2.23: "Playing in Ditches," Level 3



Example 2.24: “Rock, Chromatic, and Roll,” Level 2 duet



Example 2.24: “Rock, Chromatic, and Roll” continued

Chapter 3: New Chords

Chord structures in post-tonal music are more complex than those of previous eras. Typically, more than three pitches are used and are not restricted to stacks of thirds, creating a bewildering variety of chords that can be difficult for beginners to grasp both physically and visually. However, there are times when modern chords such as clusters are easier for young beginners to produce than triads because triads require more attention to fingering than playing consecutive fingers. For beginners, chordal experience includes mostly major and minor triads, chords that can be played from inside a five-finger position, and if seventh chords are present, they are typically inversions of V^7 and close to I.

Difficulties for beginners arise when they have to alter the shape of their hand to change qualities or find unusual interval combinations. The smallest change in color may be very difficult for young players. Because of the limited chordal experiences they have, it is usually difficult for beginners to play accidentals with any finger besides their third finger. They also have trouble moving outside of a fifth to play larger intervals partly due to the size of their hands, but mostly because intervals larger than a fifth are not typically introduced until later in method books.

A beginner's concept of key signature and chord structure relies on two major concepts: triad structure and positioning. This means that while they are absorbing the sounds of chords and learning about colors throughout early lessons, they can easily grasp more complicated harmonic structures if they have a solid foundation of tonal chords, how they are built, and how to execute them when encountered. This chapter will cover the two main types of chords that are responsible for much of the chordal sounds in post-tonal literature, clusters and polychords.

Clusters

Within the first four to six weeks of piano lessons, many students begin playing harmonic intervals with fifths formed from the outer notes of a five-finger position. An an early alternative, secundal chords (built upon seconds, or the addition of seconds to a familiar harmony) can be introduced alongside fifths. Secundal chords, also known as tone clusters, are more dissonant than the types of chords beginners are accustomed to, but are relatively easy for beginners to produce (in their simplest form). During the initial introduction to triads, students who have less finger coordination typically have some difficulty adding the third finger to the outer notes because of the fingering. For students who experience this challenge, a cluster formed from a familiar position is easier to produce than the first triads they are introduced to.[19]

Heavily compressed clusters, such as ones built with minor seconds require more coordination as students must condense their hand beyond what they are accustomed to. Consecutive major seconds are not only less dissonant, they are also more comfortable for students due to their experiences with positions that are mostly major seconds. As many lessons begin by playing the groups of two or three black keys together to increase their familiarity with the keyboard, students are exposed to an amount of dissonance that no one questions the appropriateness of. The unbiased opinion of children when it comes to dissonance is very helpful when introducing them to these chords, as long as the clusters remain easy to produce and their location can be found with little frustration.

Difficulties with clusters arise in existing literature due to fingerings and ranges. Clusters usually have an accompaniment role, so the coordination required can be similar to that of

[19] Clusters are not commonly seen in method books except early on when locating sets of two or three black keys, the purpose being to familiarize students with the keyboard, not exposure to clusters.

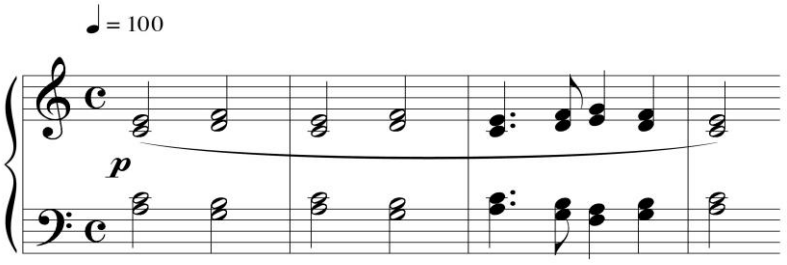
tonal music if the composer remains conscious of the fact that an early player has little experience with chords having a melodic role. The more closely the cluster resembles a common five-finger position, the easier the cluster will be for an experienced beginner to master.

32 Piano Games is a set of pieces by Ross Lee Finney in which he introduces clusters step by step, increasing the number of notes in the clusters as the level increases from Level 1-7. Finney approaches the difficulty of adding the "in-between" fingers by pairing games III and IV, where IV is a variation of III. Game III, "Thirds," is a simple exercise of thirds and IV, "3 White-Note Clusters," adds the middle note to the existing thirds (Examples 3.1a & b). This allows students to learn the contour, rhythm, and overall feel of the piece before adding the middle note to form three-note clusters. To make IV more approachable, Finney gives less dynamic changes and articulation markings than in III. Other factors that add to the ease are the familiarity of middle C position, the hand shapes mirroring each other in direction and fingers, and the slowing tempo when secundal harmonies are added. The idea of adding one note at a time is a simple way to introduce a student to more complex clusters. Adding notes slowly removes some of the physical demands while the slow building of dissonance allows the student to adjust aurally as well. This one is the easiest of the cluster movements and prepares the student for more advanced clusters to come.[20]

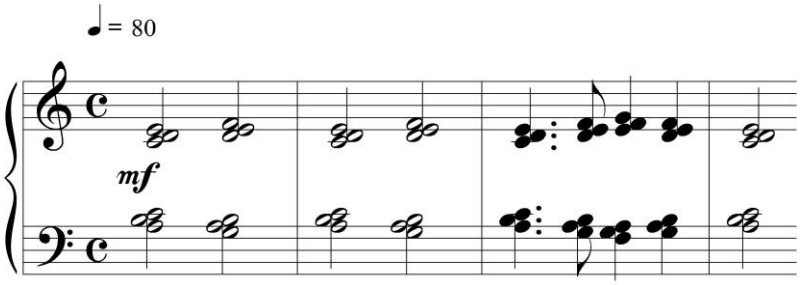
Robert Starer's "Adding and Taking Away" is the ninth of his twelve-piece set, *Games with Names, Notes, and Numbers*. Magrath describes this set as "especially good for a student who has a mathematical mind or who enjoys contemporary sounds" (503). For the first half of this Level 2 piece, the notes of a five-note cluster are being added one at a time

[20] Later in Finney's set, "5 White-note Clusters" (game IX) introduces five-note clusters in the right hand only. Increasing the number of notes increases the physical difficulty; however, students who are having coordination difficulties may find it easier than having to use specific fingers.

a: III, “Thirds,” mm. 1-4



b: IV, “3 White-Note Clusters,” mm. 1-4



Example 3.1: Finney’s *32 Piano Games*

(Example 3.2a). The clusters are influenced by a whole-tone scale, so they require hand shapes that may be unfamiliar to a beginner. I agree with Magrath that a student who is good at math may not be as bothered by new hand shapes because the notes and dissonance are added to gradually. Although this passage is based on a whole-tone scale and therefore involves a mixture of black and white keys, the direction and rate of adding pitches is not too difficult to execute initially. The difficulty of “Adding and Taking Away” increases as the right hand answers with a similar building of notes and dissonance. It is the placement of the hand that makes this passage very difficult for this level player. In order to start the cluster with a strong finger, the first note of the cluster is to be played with finger 3. This causes the right hand to move several times, breaking beginners’ sense of familiar positioning. As

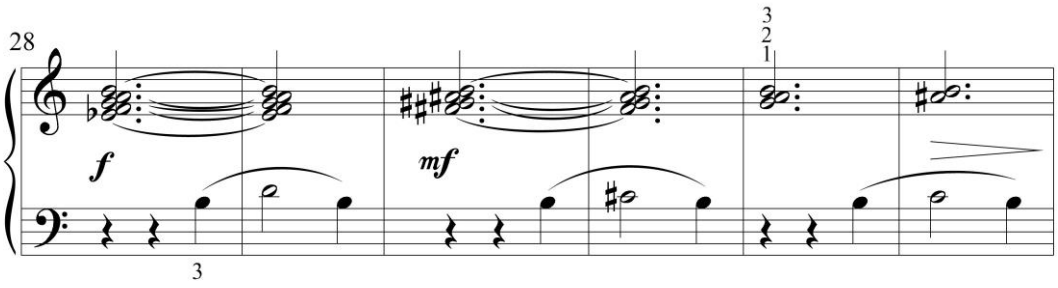
discussed earlier, a familiarity of positioning is preferred when introducing new sounds to this level of player.

The final passage is significantly more difficult than previous material as it demands finding a five-note cluster with no preparation and gradually removes notes from it, while slightly altering the pitches each time (Example 3.2b). The difficulty is not only from its movement in the opposite direction, but also from having to locate unfamiliar hand shapes quickly. Although the top note remains the same and the number of notes is lessening by one each time, the changing hand shape is a challenge, especially due to it having an accompanimental role. Keep in mind that the left hand is playing a contrasting melody throughout this passage. The final section then adds one more layer of difficulty by adding mixed accidentals, where previously this piece only had flats. In addition to forming new hand shapes and reading mixed accidentals, the suggested fingering for the right hand requires relocating several times so that strong fingers can be used. Although this movement is the same level as Finney's "5 White-Note Clusters," the chords are much more difficult to produce due to their variety.

a: Left hand adding notes in a whole-tone position, mm. 1-6

Example 3.2: "Adding and Taking Away" by Starer

b: Clusters using mixed accidentals, mm. 28-33

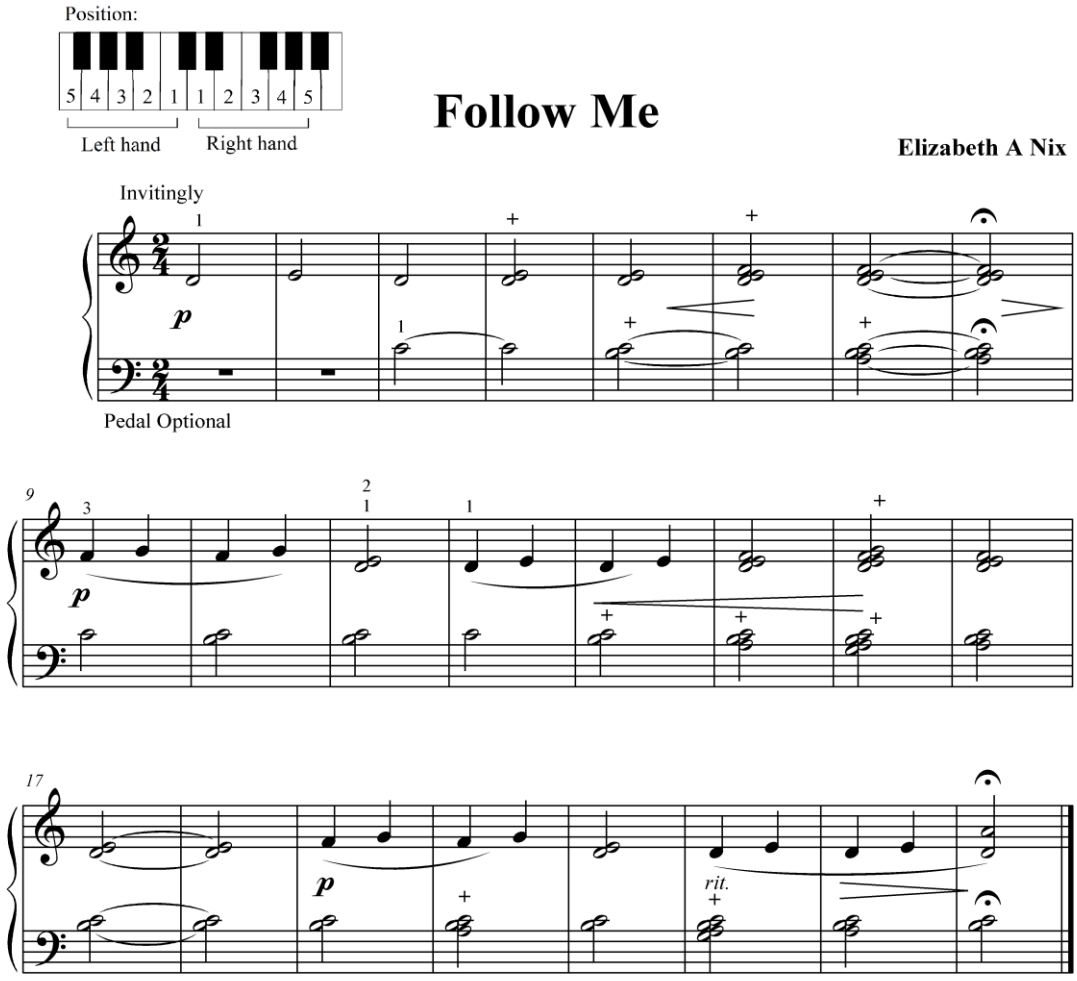


Example 3.2: Continued

Solutions

In my compositions I wanted students to be able to hear a variety of dissonances formed in familiar positions that are easy to master. The clusters in these pieces are used in accompaniment as well as melodic roles so that the importance of the clusters varies as well. This will also help students to accept clusters in a more tuneful way, instead of only as a dissonant side part. “Follow Me” is a Level 1 example of clusters using a variety of cluster sizes (Example 3.3). My goal was to make large, dissonant clusters from a stationary position on white keys that are easy to read and follow. Notes are added and removed from the clusters one at a time. Finger 5 in the right hand is only used at the very end so only strong fingers dominate the exercise. By placing the hands beside each other, the production of larger clusters is possible from just a few fingers in each hand. Even playing the thumbs together forms a major second. For the most part, students have to alter one hand at a time which lessens the difficulty. During instances where both hands have to change, the hands are mirror images of each other. The student is actually being exposed to two to eight-note clusters when the hands are mirroring each other in this way.

Pedaling is optional in this piece which can add a greater variety of sounds. Holding down the pedal throughout requires a greater observation of the soft dynamic levels, or the dissonance can be overwhelming. If a young student holds down the pedal throughout and plays softly, the exposure of many lasting dissonances will occur. This piece is great for students capable of active pedaling as they can work on their listening skills as they may not have been exposed to these types of dissonances before.

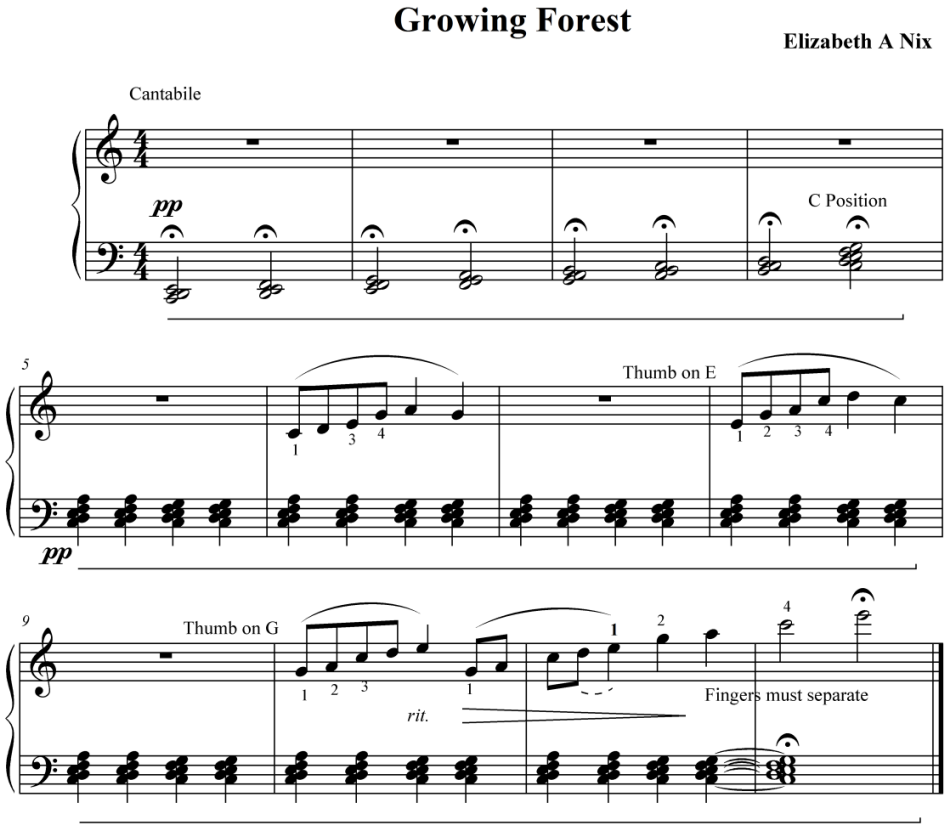


Example 3.3: “Follow Me,” Level 1

"Growing Forest" is meant to be Level 2 at its easiest (Example 3.4). Clusters during the opening passage are building as they move up. In the opening I have added fermatas to allow players plenty of time as they carefully locate each new cluster. This ascending left hand movement is not difficult because the three white-note clusters ascend requiring no change in hand shape, and ends on a five note cluster in C position. Once the left hand is settled in a familiar five-finger position, the extension to a sixth is done by the thumb, which is the strongest finger and the easiest to control. The clusters in this piece serve an accompaniment role which is a common use for them even in more advanced literature.[21] This piece requires familiarity of the C pentatonic scale which they were introduced to in "No Fs or Bs about it." The right hand usually has an entire measure to relocate as the scale moves upward. The title "Growing Forest" is especially fitting if the student chooses to pedal throughout, because even if the dynamic level remains constant, the amount of dissonance will grow as the range increases and notes are added.

"Trampoline" is Level 3 and sounds more difficult than it is (Example 3.5). The clusters involve sliding off of the three black keys onto the surrounding white keys. Students are to hold the pedal down from m.9 until the end which will combine these black and white keys clusters, creating a high amount of dissonance. This motion of "falling off" the black keys should be practiced before "Trampoline" is learned (Example 3.5a). I focused on employing the same black-key and white-key clusters in various octaves to make it easier. I then added arrows to make the changes in direction easier to follow. The required motion of falling off of the black keys is fun, easy to master through repetition, and easy to locate due to the many experiences beginners have with finding sets of black keys. The white-key cluster, although

[21] Henry Cowell's "Tides of Manaunaun" contains many large, accompanimental clusters played with the pianist's entire forearm.

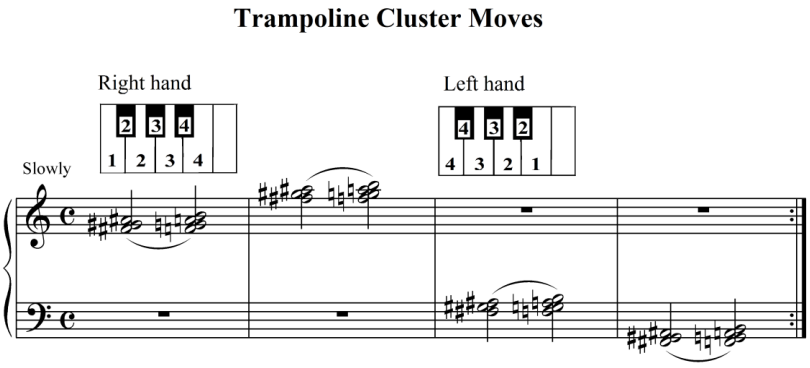


Example 3.4: “Growing Forest,” Level 2

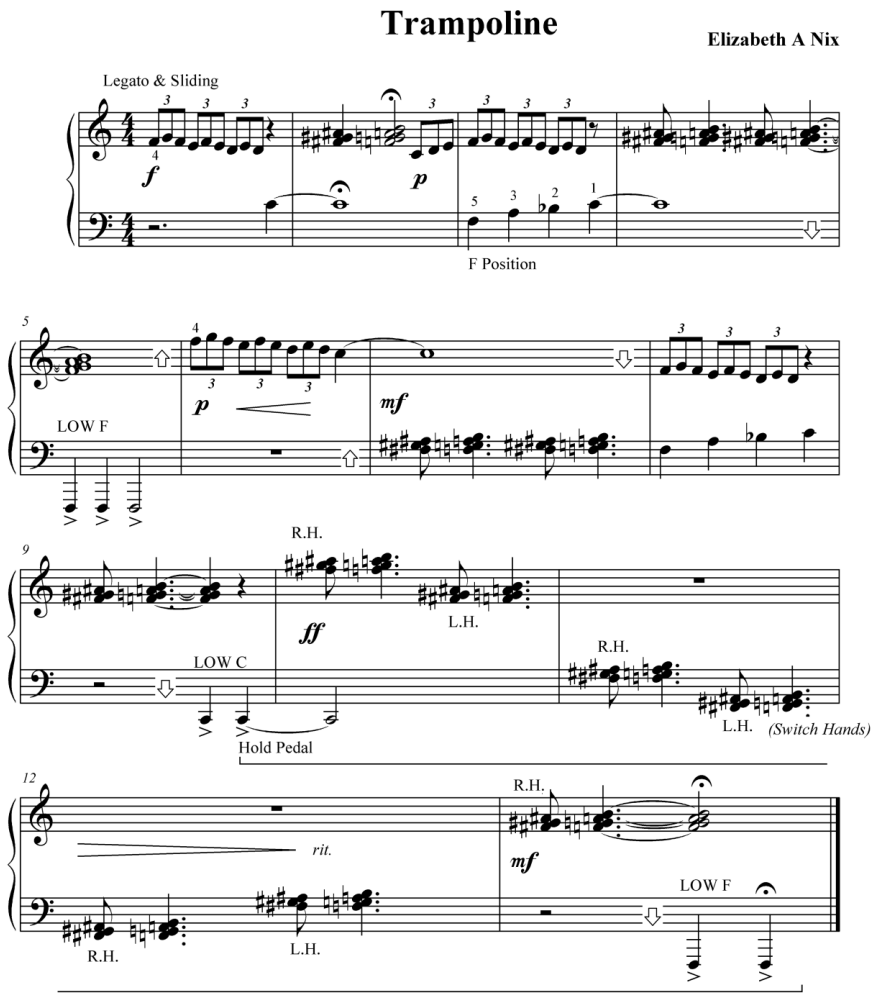
it contains one more note than the black-key cluster, is easy to visually locate because these notes surround the three black keys. The largest moves are in the left hand and involve finding low C’s and F’s in several extreme registers that have been marked on the score.

This piece offers students experience with clusters changing in size, register, position, and varying levels of dissonance. Students must also be comfortable playing B flats in F position as well as crossing hands over one another. This piece is Level 3 because students must be comfortable locating a variety of positions and specific notes at a fast pace. Many Level 3 players may find this piece easier than other repertoire because of the directional hints and repetitive themes.

a: Exercise for the required cluster slide in “Trampoline”



b: Black and white key clusters



Example 3.5: “Trampoline,” Level 3

Polychords

Chords with more than four different pitches are found with a much greater frequency in post-tonal music than the literature of other periods. Since students are introduced to major and minor triads early on in lessons, extended harmonies (adding a 7^{th}, 9^{th}, or 13^{th}) can be presented in a way that builds on triad knowledge if the stack of thirds is built from simple positions. Tall chords are not commonly seen in piano literature for the young, but they are also not necessarily unique to post-tonal writing. These extended chords create many sounds and colors typically found in jazz and the music from the Romantic era. Polychords, on the other hand, can be produced using familiar hand positions and are unique to post-tonal repertoire. The amount of dissonance created by a polychord can vary depending on placement and the number of seconds created by the triad qualities. Distinguishing between tall chords and polychords can sometimes be difficult, especially in early literature which involves fewer notes than advanced literature. Polychords are typically perceived as more dissonant than tall chords because the former is not restricted to stacks of thirds. Even more dissonance will arise if the combined chords overlap, making it more difficult for the beginner to identify if the chords are not separated. Separation between the chords will help beginners identify polychords, but this requires beginners to obtain the ability of locating different positions within the hands.

If two hand positions are separated by a third, and both hands contain triadic material, the resulting chords can be analyzed as a type of tall chord. Tall chords are not always voiced consonantly and are capable of including harsh dissonances if any of the thirds are rearranged as seconds. Additionally, one or two chord tones are commonly omitted by composers in tall chords to avoid particular intervals or make the chord more playable. Because a students'

understanding of chord structures involves hand positions more than keys, tall chords and polychords are identified by their placement on the keys. To a beginner, extended harmonies feel like triads that require the same locating abilities as polychords. Further difficulties can arise from dissonance, distance between the two chords on the keyboard, and differences of hand shapes.

Persichetti uses tall chords and polychords in abundance in his early piano literature.[22] In "March" from *Parades*, Persichetti separates what could be a 9th chord into what can easily be regarded as polychords. There is not only a gap in register, but also different articulations between parts. Another movement from *Parades*, "Pomp," uses both 7th chords and polychords. Persichetti makes this passage easier by mirroring hand shapes, repetition within the hands, and other visual aids that make locating two hand positions easier (such as moving the same distance and direction in both hands).

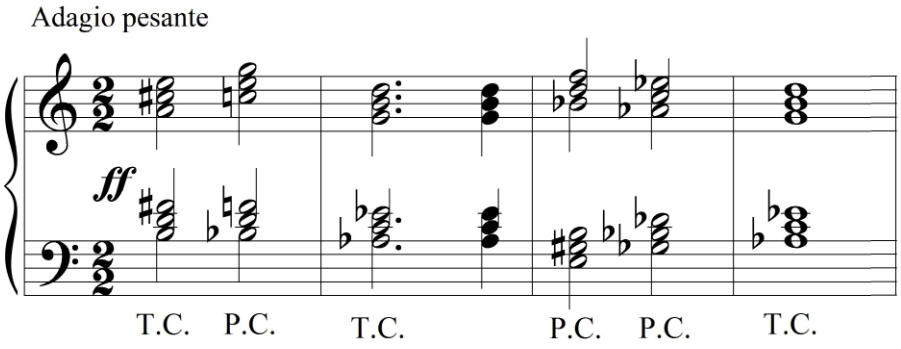
Persichetti's *Little Piano Book* contains 14 pieces that range from Levels 1-4. Number 10, "Prologue," is Level 2 and uses a combination of tall chords, polychords, and other chords, producing from them moments of both tertian resonance and biting dissonance. The opening section alternates between tall chords (11ths) and polychords (Example 3.6a). The polychords are more obvious when there are large gaps in register. Although the tall chords are easier to locate due to the hands being only separated by a third, the hands have to form different shapes as the placement of accidentals is not mirrored between the hands. Also, mm. 5-8 are not triads, which makes them more difficult to locate because of their non-uniform construction. Varied intervals between the hands add to the difficulty as no fingerings are suggested and intervals larger than a fifth are used in the bass clef several

[22] Thompson lists several elementary compositions in each chapter of *Teaching and Understanding Contemporary Piano Music*. The only elementary example of polychords listed is Persichetti's three piece set, "Parades for Piano." (96)

times (Example 3.6b). The voicing of this passage, although beautiful and less dissonant than the surrounding material, makes the chords harder to identify and more demanding physically.

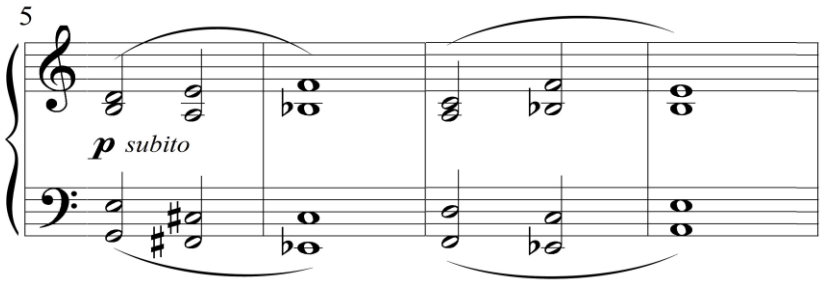
Number 8, “Fanfare” from *Little Piano Book* is Level 3 and requires a good bit of intervallic coordination. Difficulties arise from both hands having to change positions and shapes frequently at a fast tempo. Some of the chords, such as B flat major would be difficult to find quickly even if the student has experience with this triad (Example 3.7a). As the passage develops, more polychords and tall chords appear and the dissonance increases. Measures 13-16 is a passage of polychords, some of which are broken triads. To a beginner whose concept of chord structures revolves around triads, these positions would all be considered polychords (Example 3.7b). Both hands must move different distances and at times in different directions. In addition to this, the chord shapes in the left hand are difficult to form while the right hand has to find only familiar triads. The chords also have a more melodic role which makes the unusual hand shapes more of a challenge.

a: “Prologue,” with labeled chords, mm.1-4



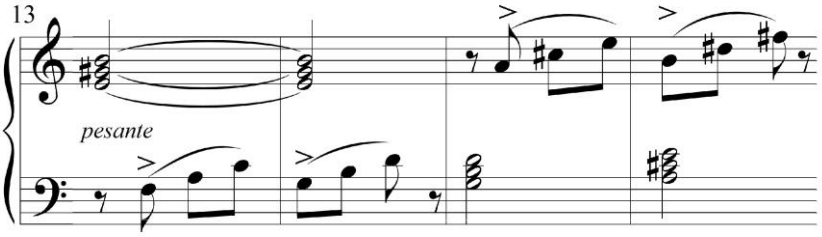
Example 3.6: Persichetti’s “Prologue,” from *Little Piano Book*

b: Voicing adding to the difficulty, mm. 5-8

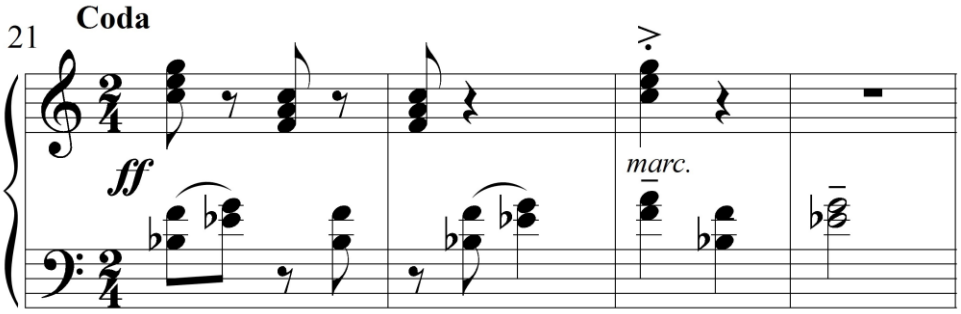


Example 3.6: Continued

a: Polychord positions, some of them broken chords, mm. 13-16



b: Polychords from two distinct sonorities, mm. 21-24



Example 3.7: Persichetti's "Fanfare" from *Little Piano Book*

Solutions

In most of the literature for Levels 1-3, several difficulties arise for the hands and eyes when trying to locate hand shapes that are either unfamiliar or unlike one another. When a student is being introduced to more contemporary chord structures, aural difficulties are rarely the most pressing issue. As soon as a student has a grasp on triads, I find it easy to introduce them to the idea of playing two different chords, or adding a note to a chord which changes a chords construction and ultimately its sound as well. I have found it rather easy to convince young students that chords involving more than three notes are "cool." They also get excited when I explain to them that the instrument they have chosen is capable of much more than most other instruments harmonically. Experimenting with chord structures can be a fun project for students if they are frequently encouraged to think outside the box musically.

Although polychords can result in more dissonance than tall chords, polychords are sometimes simpler for beginners to locate because their knowledge of sonorities is really just familiarity with various positions. Many of the chords could be analyzed as some type of extended chord. Based on a beginner's perception of keys and positioning, these would all feel like polychord positions. A young student does not have to understand that there are two sonorities present. They simply have to be able to identify the position differences between the hands. My composition "Surfing Lessons" is a Level 2 exercise that allows students to practice locating a variety of different chord shapes and positions (Example 3.8). The opening passage, marked "early morning," requires the left hand to simply play I and V^7 chords in A major as the right hand jumps around to chords involving flats. This allows students to focus on the right hand; however, the left hand has to change chords and therefore

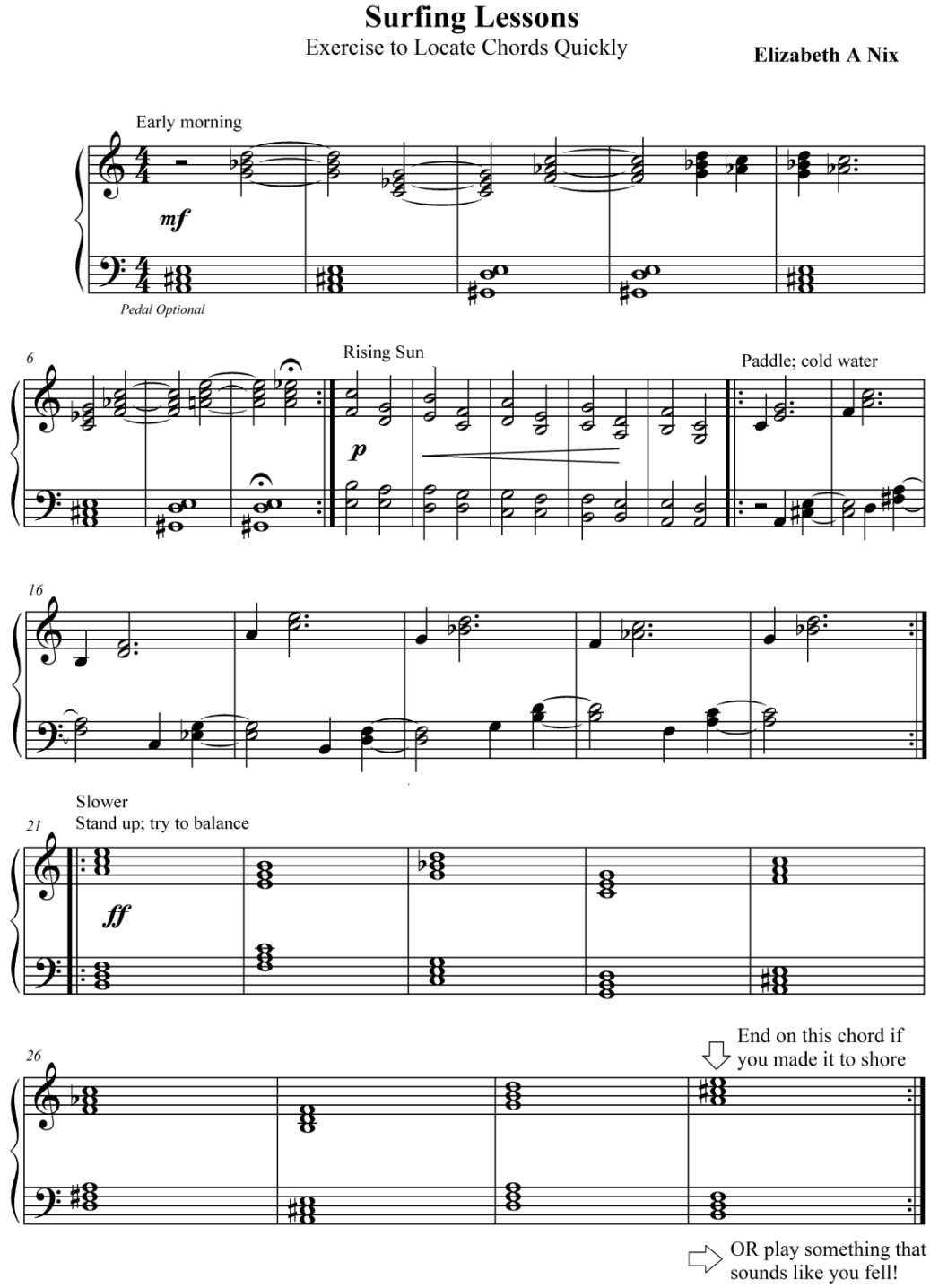
cannot be ignored. Teachers should encourage students to find each hands position as fast as possible and to do so efficiently by looking ahead.

The second section, “rising sun,” exposes students to alternating quintal and quartal harmonies. New chord constructions are plentiful in post-tonal music, so it makes sense for students to gain experience with them. The left hand remains stationary and only has to alter the interval while the right hand does most of the moving. The middle section, “paddle; cold water,” requires students to locate triads of several sonorities in both hands, but not at the same time. There are instances where the hand positions could be analyzed as a tall chord; however, because the right hand plays first, the fact that they are stacked thirds will not be noticeable and students and will be regarded as polychords. This allows students to develop the skill of thinking about chords quickly and with as little confusion and unnecessary motion as possible.

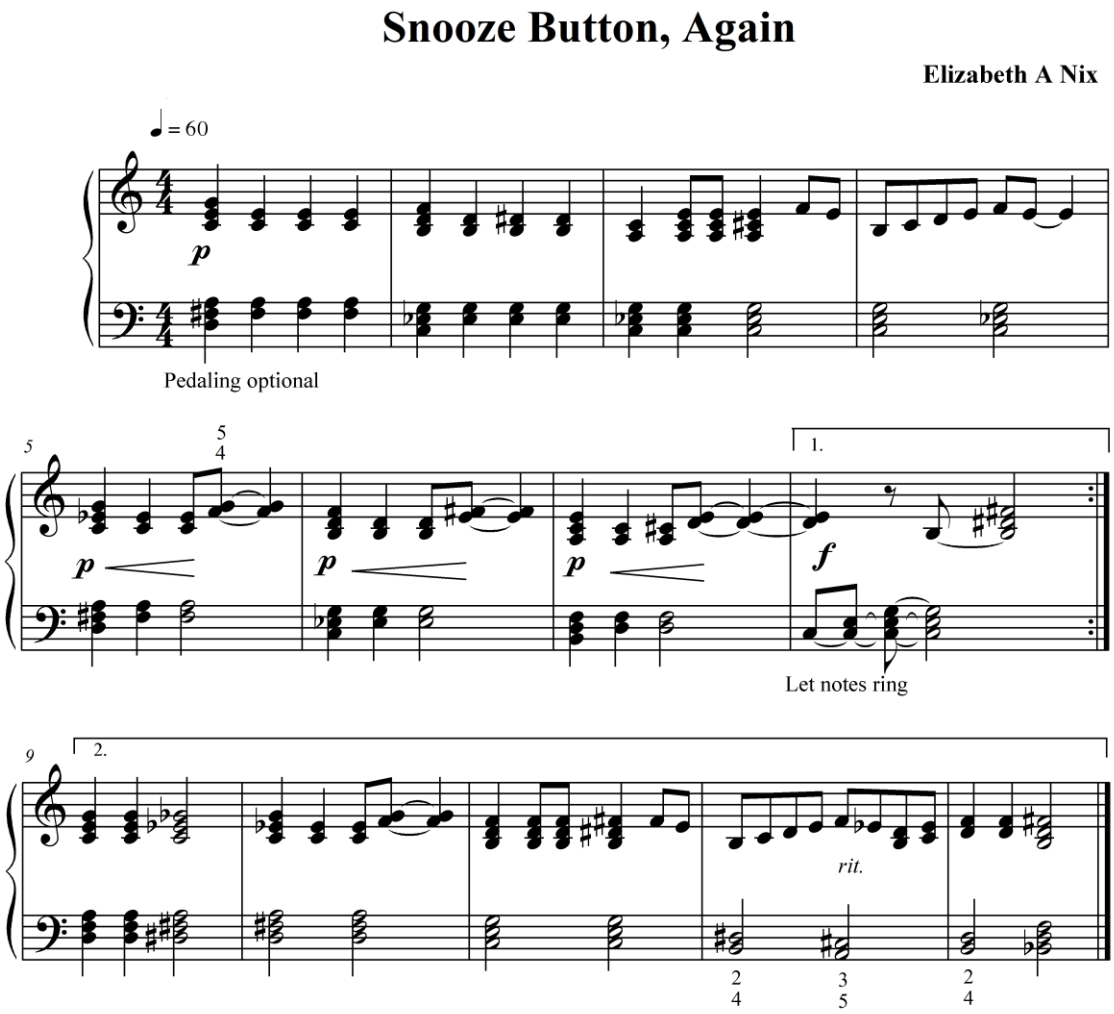
The final passage, marked “stand up, try to balance,” requires students to find contrasting chords at the same time. The dissonance is referred to as more of an “unbalanced” sound. The tempo is lowered here so students can locate each polychord at their own rate. Students can choose to end on the written, final chord, or another chord of their choosing. This exercise prepares students for the physical and visual demands of “Snooze Button, Again” and “Surfing Expert.”

“Snooze Button, Again” is a Level 2 piece intended to give students more exposure to the sounds of extended harmonies with mixed sonorities between the hands (Example 3.9). The sonorities change frequently and are never the same between the hands even when thirds appear to be stacked. Instances where hands mirror fingering still contain conflicting

sonorities which are easy to produce. Students can find them more easily due to them begin mostly stacked thirds and moving in similar directions.



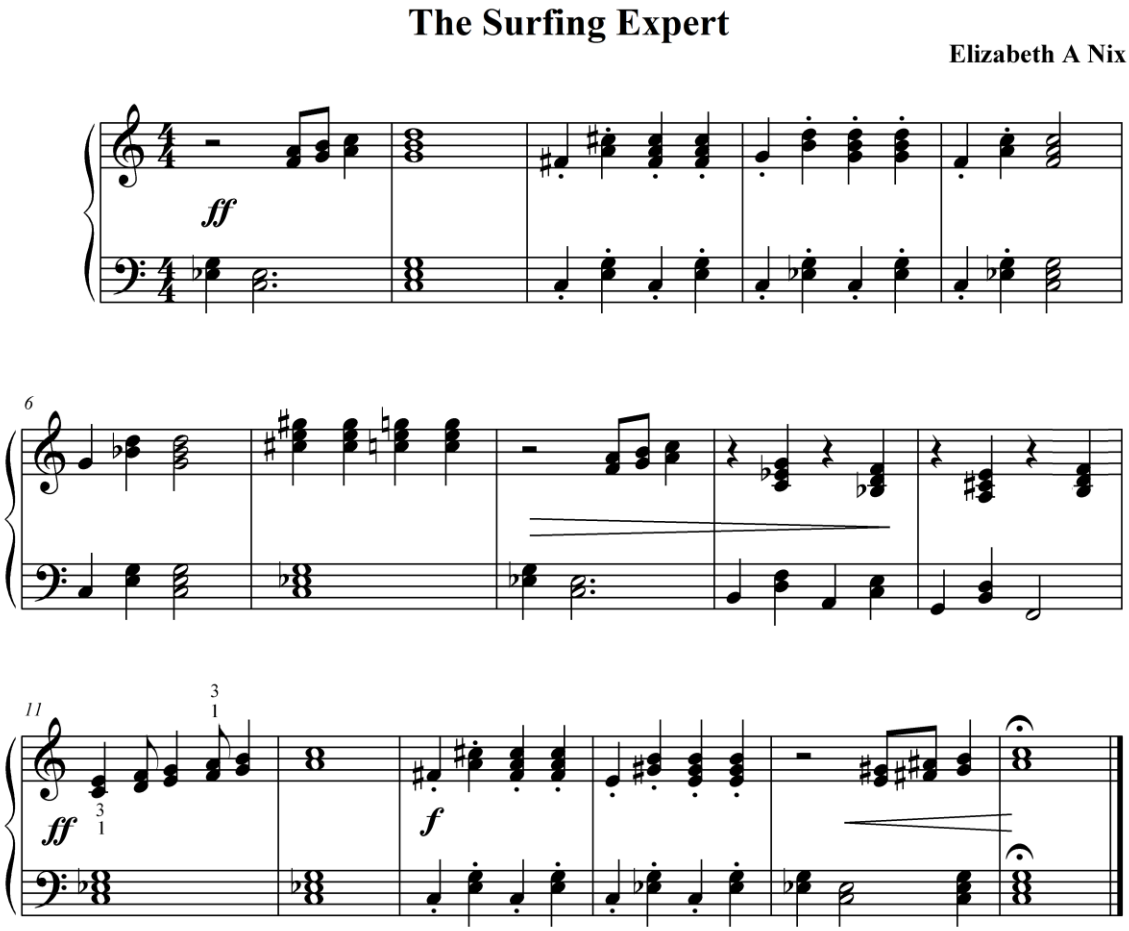
Example 3.8: “Surfing Lessons,” Level 2 exercise



Example 3.9: “Snooze Button, Again,” Level 2

“The Surfing Expert” is Level 3 and contains what could be analyzed as both polychords and tall chords (Exercise 3.10). Similar to Finney’s approach with clusters, I used chord shapes that were introduced in “Learning to Surf” so that students are familiar with most of the positions when attempting to find these chord structures. The least familiar chord to locate is F sharp minor. The left hand is made easier by remaining in C position for most of the piece and changing only the chord quality from major to minor frequently. Measures 9-10 involve both hands moving downward together and all accidentals are located in the

right hand. The most challenging aspect is that the placement of accidentals moves around within the hand. This is made less challenging by the ease of the left hand so that students can focus on their right hand.



Example 3.10: “The Surfing Expert,” Level 3

Chapter 4: Polytonality

Polytonality (two or more simultaneous tonal centers) is commonly seen in modern piano literature and varies in complexity depending on the composer. Students have a certain degree of natural understanding when presented with the concept of polytonality due to the duality of the body (two hands). Some students actually seem to gravitate towards experimentation with polytonality, trying to play two pentascales they know at the same time. Teachers will likely immediately correct this "mistake" and guide students to the "correct" position.

With the piano being a polyphonic instrument, it makes sense to expose young pianists to polytonality early on. Similar to locating polychords, if the student has to change positions or locate unusually shaped chords, a greater amount of coordination and knowledge will be required. The polytonal compositions contain more scalar lines and points of resolution within each hand than the material discussed for polychords.[23] One of the more challenging aspects of trying to gain full comprehension of polytonality is that books and compilations are designed to provide repertoire, not explanation. Teachers can explain the concept to their students, but if teachers are blindly following a method book, it will not be discussed. The other deficiency in existing polytonal literature is that a large majority of it is Level 3 or harder. In addition to featuring polytonality, the literature frequently requires moves with little warning or assistance, positions or tonal centers that students are rarely exposed to, and textures or accompaniments unlike those that students have encountered.[24]

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[23] As motor skills improve within the first few years of lessons, students gain the ability to move their hands in opposite directions (mirroring at first), play two rhythms at the same time (such as a melody and accompaniment), and eventually they obtain enough control to play independent lines and different dynamics.

[24] There are a few polytonal pieces in *Mikrokosmos* volume II, but they are too advanced to be used as introductory pieces. Suchoff describes the tonality of no.42, "Accompaniment in Broken Triads" as having a bitonal effect, but it is actually just some wrong-note writing with occasional C naturals in a piece containing mostly C sharps. Number 66, "Melody Divided" does not contain two clearly stated tonal centers. The piece

Several of Persichetti's compositions contain polytonal passages. The movement "Pomp" from *Parades* can be used to introduce a student to polytonality as well as polychords. Each hand takes a turn presenting the melody while the other hand plays chords in another key. One of my favorites of Persichetti's is "Capriccio" in his *Little Piano Book*. The positions expose students to several unusual combinations such as D major and F major, or C major with F minor. The hands have to be fairly independent from one another in this piece, making it Level 3. The variety of positions are played with both arpeggios and melodies preventing the listener from hearing these passages as only extended harmonies.

Split thirds (simultaneously sounding parallel major and minor thirds) make a good introduction to polytonality because they contain contrasting qualities. Stravinsky's *Les Cinq Doigts* contains a beautifully written movement that has split thirds throughout, #6 "Lento" (Example 4.1). An issue with using this movement as an introduction to polytonality is that the actual split third (F natural and F sharp) is never stated harmonically.[25]

One of my favorite introductions to polytonality is from Adler's *Gradus*, No. 15 (Example 4.2). It begins with a split third and then expands to several clashing harmonies. Hands mirror each other throughout, exposing students to several dissonances that are easy to produce. Most of *Gradus* is described as Level 3; however, this movement is particularly easy. I would say it is Level 2 as it is very short, and there are no "surprises," the accidentals are easy to see, and the rhythms repeat every two measures. Meter changes are present and

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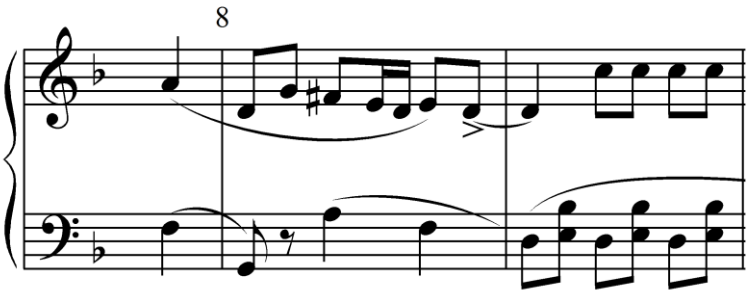
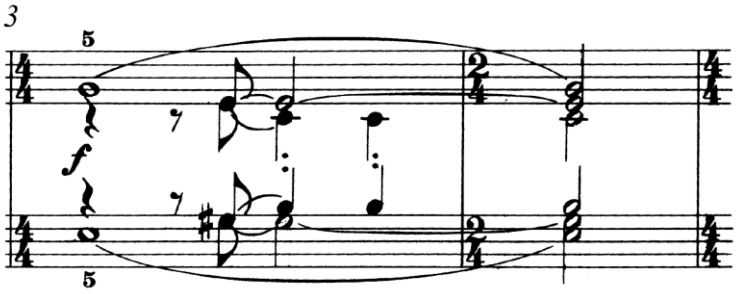
that comes closest to being bitonal without going too far beyond the level of an early pianist is no. 51, "Waves." (39-59)

[25] Thompson mentions Stravinsky as a possible solution to the lack of elementary polytonal compositions due to his strong "wrong-note" writing as it is intended to "produce an out-of-focus effect." (98)

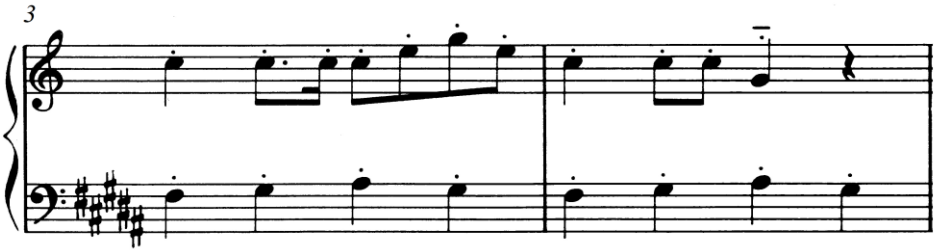
are not always identical in each phrase, but they always occur during a long note which makes counting them much easier.[26]



Example 4.1: Stravinsky's No. 6, "Lento," mm. 8-9



Example 4.2: *Gradus*, No. 15 by Samuel Adler, mm. 3-4



Example 4.3: Mageau's "Fife and Drum," mm. 3-4

[26] Some other teaching pieces from *Gradus* provide good exposure aurally but are challenging physically, perhaps even exceeding Level 3 in terms of coordination. One of the most deceivingly difficult pieces in this book is no.10; both hands are in treble clef with one hand on mostly black keys and the other on white keys. The left hand crosses over the right several times ranging from a minor second to an entire major seventh above.

One of the simplest polytonal pieces to play physically is Mageau's "Fife and Drum." This Level 2 piece has different key signatures for the treble and bass clef which visually reinforces the concept (Example 4.3). The chosen key signatures may be difficult at first because few Level 2 players have been exposed to B major. The right hand is in C major and contains march-like rhythms that many beginners have encountered before. The left hand is a little more challenging as the pattern changes in a few measures and it covers all the black keys within an octave. The hands both end on C natural which adds to the accessibility, but may diminish the exposure to the concept.

Solutions

To introduce students to the concept of polytonality earlier, only familiar positions should be used. If a key signature or different key signatures are needed between the hands, they should be ones students have encountered. Most students do not have a firm grasp on key signatures, so the use of accidentals instead of key signatures may be easier for students as it provides them with frequent reminders. Adequate assistance should be provided when students have to relocate or change hand shape. This assistance can be in the form of a picture, directional hints, fingering suggestions, or enough time for the student to make conclusions while playing.

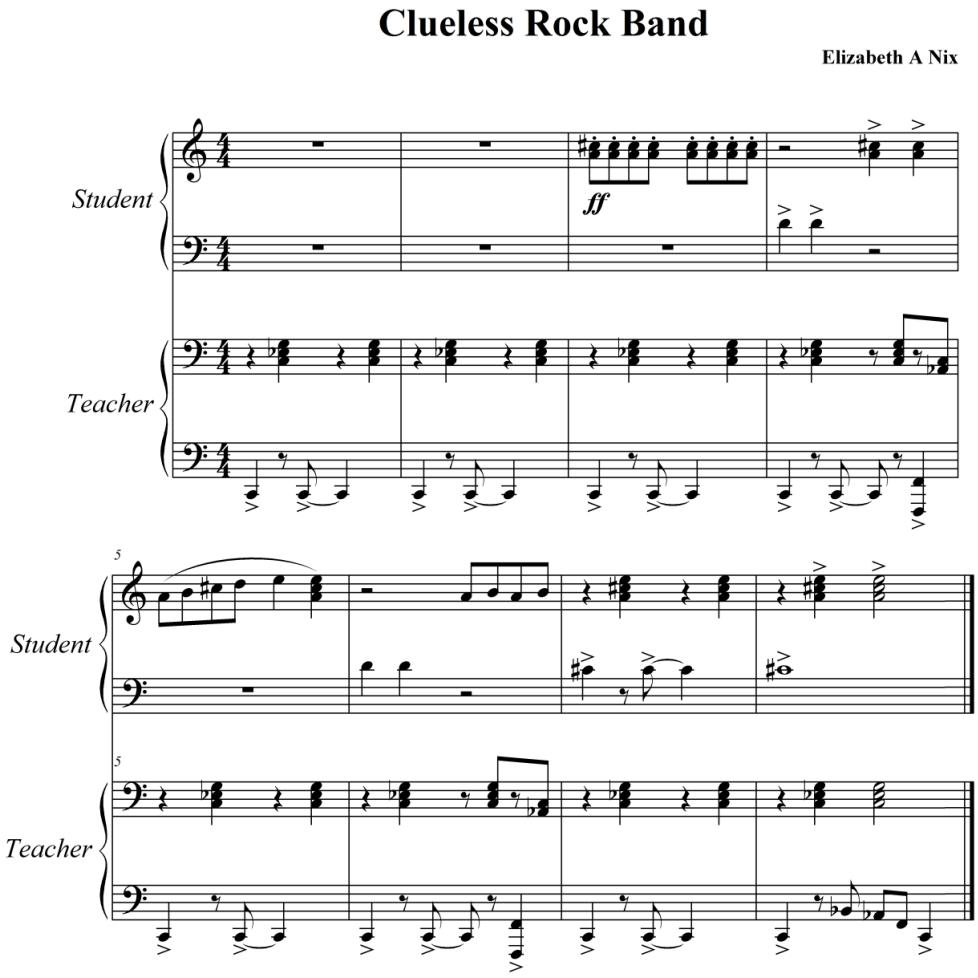
Two other important aspects I focus on in my polytonal music are the space between the hands and the way the pieces end. First, I prefer to keep a good amount of space between the hands so that the two tonal centers can be heard as separate entities instead of possible confusion with tall chords. Not only does this prevent potential visual difficulties if the hands are close together, it provides a clearer exposure to bitonality aurally and visually. Secondly, many of the compositions previously explored in this chapter end with one hand conforming

to the tonal center of the other, therefore detracting from the effect of polytonality. In my compositions I resolve each hand in their own tonalities. By allowing the piece to end with some dissonance, it can help students to fully understand the concept if the piece remains polytonal from start to finish.

An easy way to introduce students to polytonality near the beginning of lessons is in the form of a duet. "Clueless Rock Band" is Level 2 and begins with the teacher playing an accompaniment in C minor that eventually alternates with F minor (Example 4.4). The student's part clearly enters clearly in A Major in m. 3, which does not share any common pitches with the teacher's part. The most challenging aspect of the student's part is the syncopated rock rhythm at the end. It is made easier by its mimicking the rhythm of the teacher's part that has been played throughout.

As a simple introduction to polytonality, I composed a set of Level 1 and 2 pieces that require one hand on the black keys and the other on the white keys with each having a designated character. By allowing each tonality to represent a character, imagery can make polytonality more accessible to the young.[27] These four pieces are repetitive, use familiar positions and chord shapes, and require similar articulations throughout. For each piece, students are to practice each part separately. This will help students consider each hand as its own entity. Although a large amount of dissonance is produced, the character of the pieces remains light and playful due to the articulation. In this set of pieces, "Fiona" is the character for the right hand on black keys and "Gert" is designated for the left hand in C position. By providing students with the idea of having two characters, it might be easier for them to accept more radical differences between their hands, such as one hand being on black keys

[27] Edwin Kirkpatrick explores the benefits of including the imagination of children in the learning process in *Imagination and its Place in Education*. He recognizes that children play with images as they would toys and that characters of sound or the association of tunes with characters can increase their enjoyment. (102)



Example 4.4: "Clueless Rock Band," Level 2 duet

and the other on white.[28] "At the Dog Park," "Fiona and Gert are Friends," "Fiona Relaxes in Tall Grass," and "Fiona Ruins Gert's Walk" are all Levels 1 or 2 at their simplest (Examples 3.5-3.8).

"At the Dog Park" is Level 1 and uses only C major position and Db major position (Example 4.5). Pictures are provided so the position can be located quickly. A short passage from each hand has been pulled from the piece so that the student can try each line and hear

[28] Robert Ehle states in his article "Twentieth Century Music and the Piano" that this act of having one hand on white keys and the other of black is a good first step for students as they prepare for a "lack of tonal symmetry." (*Creative Piano Teaching*, 191)

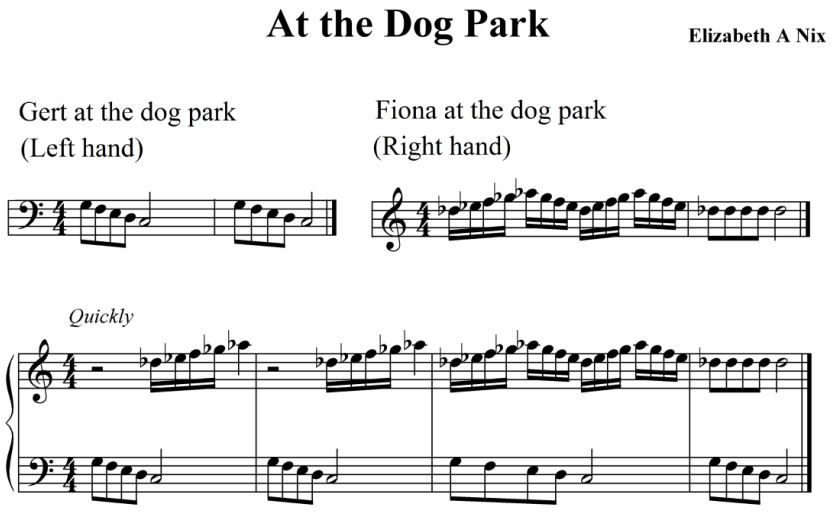
the differences in placement and tonal center. When the student plays hands together, there is only one common tone between the hands, so a certain amount of dissonance would be expected; however, the hands do not move in the same direction at the same time, therefore the amount of dissonance is reduces so that the dissonances do not distract from the tonalities.

In "Fiona and Gert are Friends," the left hand alternates between C major and C minor chords while the right hand alternates between the groups of black keys (Example 4.6). The dynamics and accented parts line up between the hands for ease of execution. Although the movement of the hands is not in the same direction or mirroring, repetition makes it easier to coordinate the parts. Although this piece contains more dissonance than "At the Dog Park," practicing each hand alone helps students to hear differences between both tonalities.

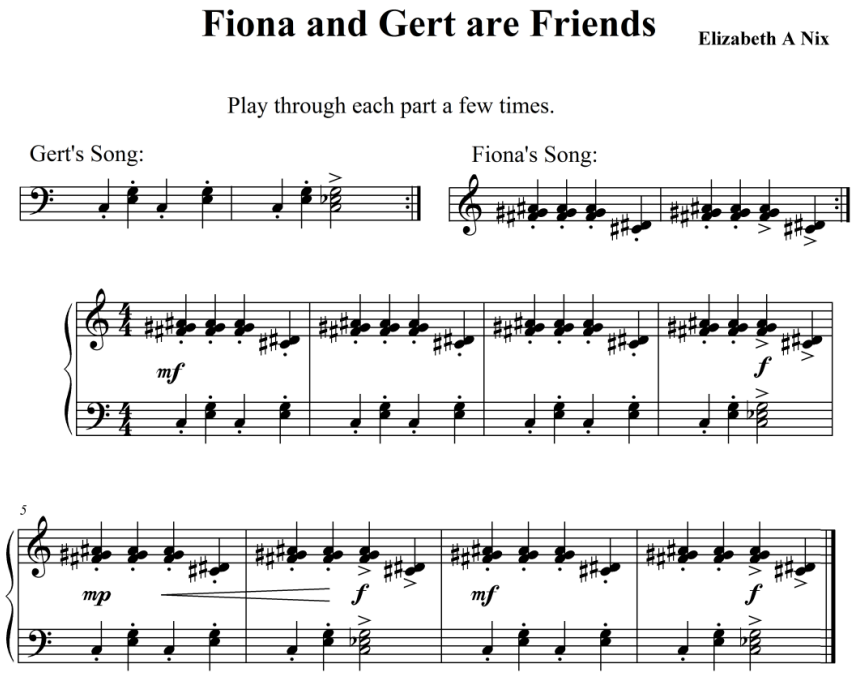
"Fiona Relaxes in Tall Grass" is a Level 2 piece because the rhythmic difference between the hands is slightly more challenging to coordinate and the right hand spans an octave (Example 4.7). The octave span is on black keys with the fingering provided. Students who have already encountered the pentatonic scale on black keys will find this less challenging. While the right hand may seem difficult at first, it is made easier by continuous unaltered repetitions of the first measure throughout the piece. The pedal emphasizes the flowing right hand part and adds a great deal of desired dissonance when Gert's theme interrupts the relaxed state of Fiona's theme.

The most dissonant piece of this set is "Fiona Ruins Gert's Walk," with one hand on D major and the other on D flat major (Example 4.8). It is Level 2 because the dissonance is greater, there are more rhythmic adjustments to make, and an accelerando at the end. The left hand plays the same skipping pattern throughout the piece while the right hand has a tuneful

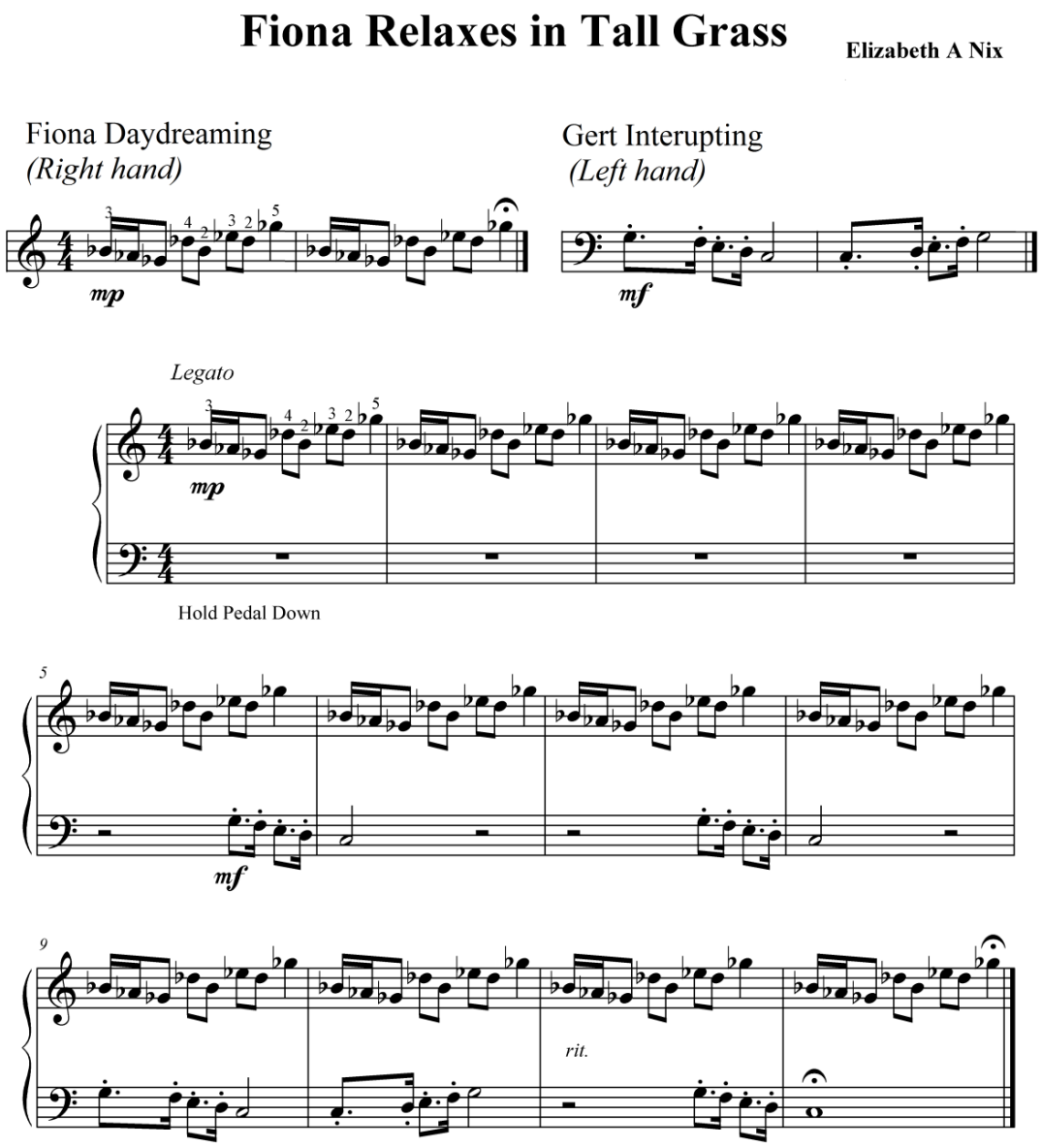
melody. An energetic accelerando closes the piece as “Fiona’s” theme (in the right hand) moves twice as fast as the left hand arpeggio so that the right hand sounds clearly responsible for “ruining the walk.”



Example 4.5: “At the Dog Park,” Level 1



Example 4.6: “Fiona and Gert are Friends,” Level 1



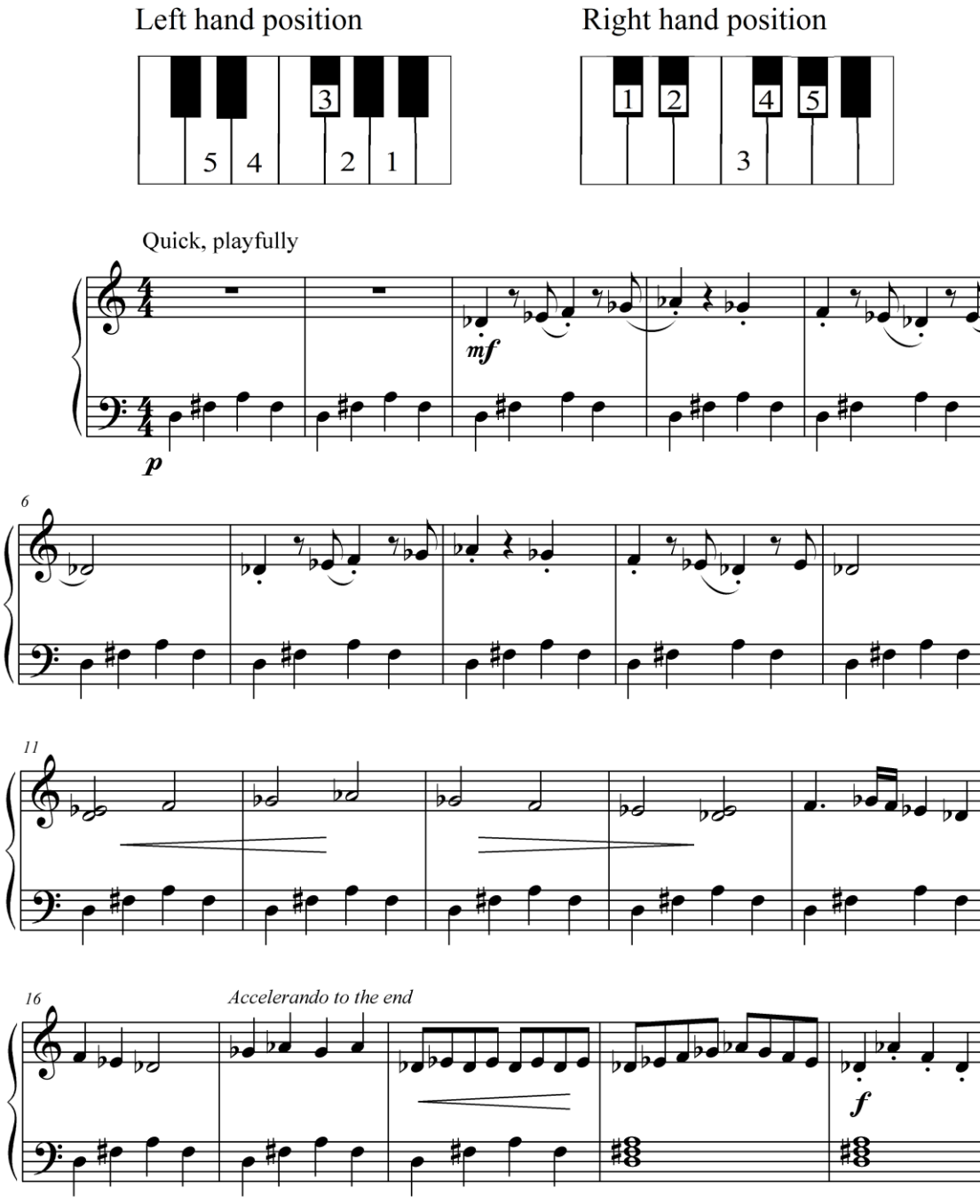
Example 4.7: “Fiona Relaxes in Tall Grass,” Level 2

“Where are We” is a Level 2 duet that features polytonality on a grander scale since both parts contain two tonal centers on their own (Example 4.9). The student has some ease of positioning: right hand in C major position and left hand in A major position. The teacher’s part adds E and D-flat major, causing a good bit of dissonance that the student can adjust to

Fiona Ruins Gert's Walk

Elizabeth A Nix

Be sure to play each hand seperately before playing them together.

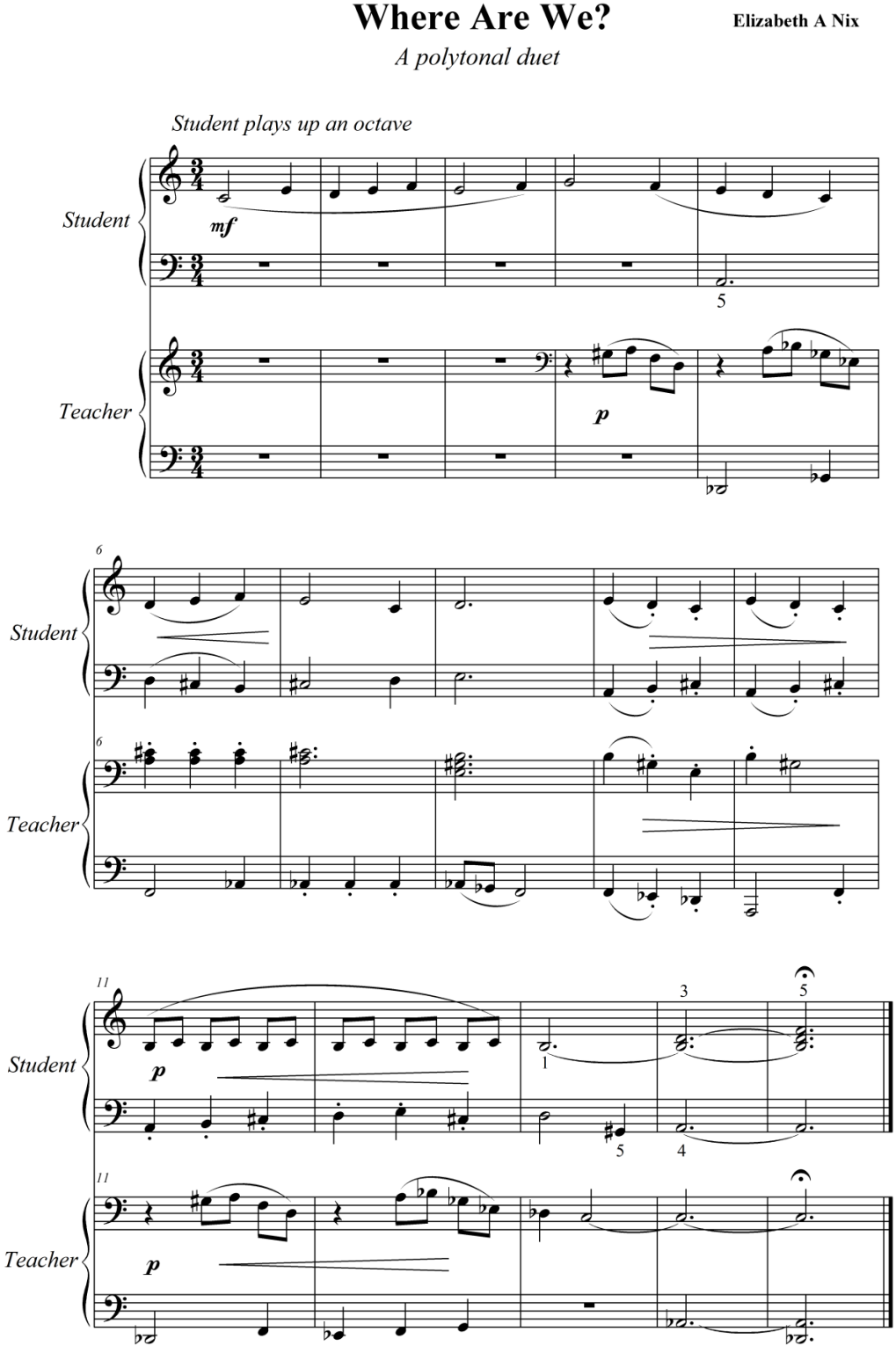


Example 4.8: “Fiona Ruins Gert’s Walk,” Level 2

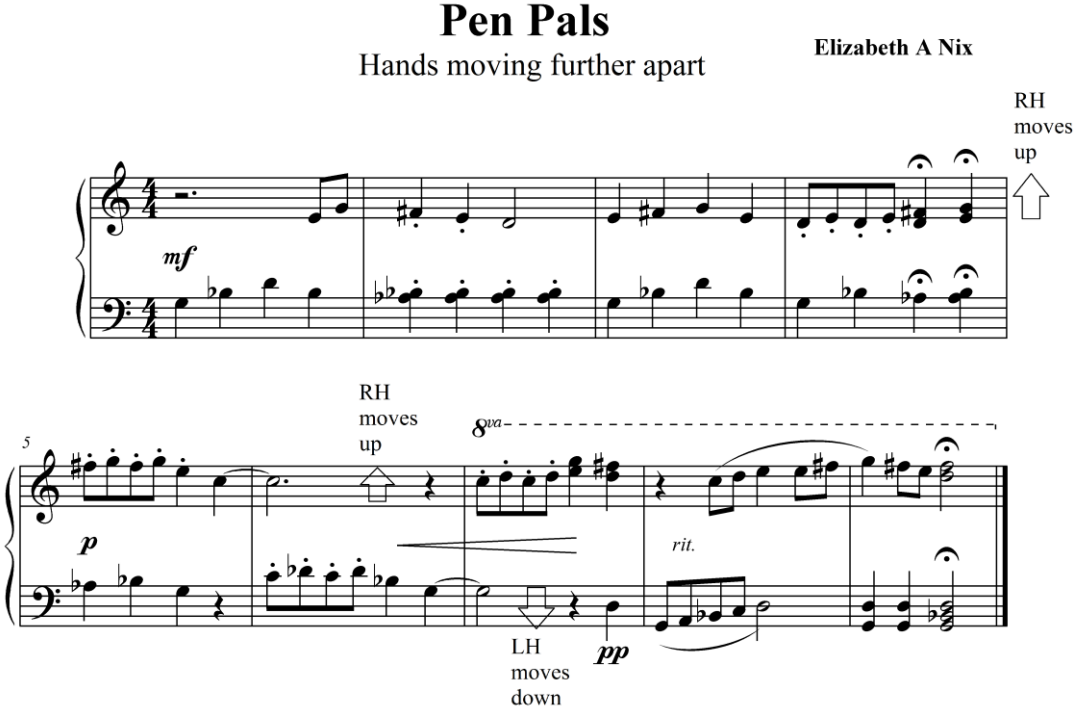
aurally without numerous positions to locate. The lines are traded between the four hands giving the piece a unique texture. Added difficulties include a cross-over in mm. 11 and 13, and a G sharp in m. 13 that requires the left hand to move out of position.

"Pen Pals" uses D major and G minor hand positions so that the hand shapes are similar while allowing several clashing tones (Example 4.10). In this Level 3 piece, the hands begin next to each other which may suggest some type of non-tonal scale to the listener. As the hands move apart from each other, they begin to more clearly show their two tonalities. If a student is learning how to relocate on the piano, this piece would help reinforce that concept as well as any tonal piece (or even so since the location of the new positions are unpredictable). To help make relocations easier, fermatas enable the student to move carefully between positions while the hands move symmetrically in contrary motion. In addition to reinforcing relocation, this piece is great as an introduction to mixed accidentals because it uses some of the first accidentals students typically learn. Again with this piece, the imagery of the two hands moving further apart and being "pen pals" can aid their reaction to the new skill of moving further apart with little similarities between their hands.[29]

[29] *Handbook of Music Psychology* contains many studies of classifications of listening. Hanslick's findings in 1854 observed three types of listening behavior. One of them that I think most children employ is imagery, "reacting to the imagery and association activated by tonalities and harmonies being heard" or in this case, produced. (Hodges, 146)



Example 4.9: “Where Are We,” Level 2 duet



Example 4.10: “Pen Pals,” Level 3

Chapter 5: Atonality

Many method books that expose children to dissonances use space-related titles so that the unusual sounds have a purpose and are easier to accept. For most people, including children, frequent resolutions in music are one of the most important characteristics. A student's acceptance of atonal music, with its non-tonal resolutions or lack of resolutions altogether, will depend greatly on their personal definition of what makes music.[30]

Atonality involves the absence of a tonal center, and the resulting compositions range dramatically depending on the compositional style and complexity of the piece. While some might associate atonality with high levels of dissonance and difficulty, atonality does not always involve dissonance or complex textures. If a beginner is open to new sounds, or indifferent to dissonance, exposure to atonality can be developmentally beneficial if the physical demands are not higher than its tonal counterparts.

The perception of atonality as an advanced concept is simply due to the fact that the majority of existing literature is intermediate or advanced. With a little effort put into locating scores, some valuable atonal pieces are available. Of the existing literature that is appropriate for beginners, *The Piano Adventures* method by Faber and Faber is a favorite of mine for my more mature beginners and my more artistic-minded students, even if they are very young. "The Storms of Saturn" uses chords and pitches in several registers that beginners are familiar with, as well as the whole-tone scale. Because whole-tone scales involve no half steps, they can easily be used to avoid suggestions of a tonal center. The second half of this piece denies the listener of any sort of resolution since it does not return to the whole-tone scale and increases in dissonance throughout. It also ends on a note that has

[30] Rudolf E. Radocy points to finality as one of the three most important characteristics of a melody psychologically. (Hodges, 94) Therefore a lack of resolution can make an atonal line less accessible, even if it is melodic in the other two ways; containing small intervals and repeating ideas.

not been used in the entire piece, therefore eliminating any level of pitch centricity. This lack of resolution and avoidance of tertian chords and traditional scales makes it one of the easiest examples of free atonality in a method book.

Mikrokosmos and *Gradus* are two of the most popular collections for exposing students to modern sounds. Béla Bartók and Samual Adler do not introduce atonality in their progressive studies until later, more difficult volumes.[31] This furthers the argument of many teachers that atonality is an intermediate concept. These pieces are full of accidentals with little assistance making them too physically demanding for beginners.

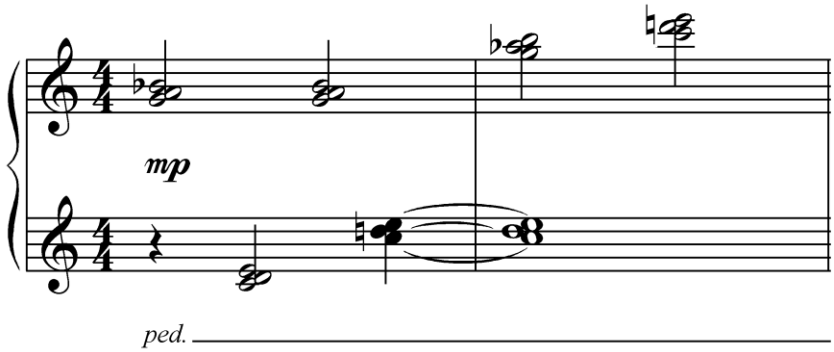
Common elements of difficulty associated with atonality include numerous accidentals, expansive ranges, non-tertian harmonies, and varied levels of dissonance. For beginners, these common characteristics result in several difficult qualities. The biggest problem is that their method books have not prepared them for these challenges, so much of the difficulty arises from lack of experience. This makes finding pieces appropriate for the physical and aural limitations of each student crucial when introducing this type of music. Additionally, early Level 2 and 3 atonal literature is deceptively difficult for the young.

Mageau's "Clouds" from *Forecasts* contains atonal writing which ranges from Level 2-3 (Example 5.1). All of the moves in this piece are to positions with which a beginner would be familiar and the shifting hand shapes comfortably collapse and expand their hands. Finding unusual three-note cluster shapes, that change in shape frequently themselves, requires both a strong understanding of flats and the ability to form hand shapes that they may not have seen before. The piece also requires pedaling in order to accommodate the clusters changing in

[31] Béla Bartók's *Mikrokosmos* Vol. II contains several pieces with an ambiguous tonal center which achieve this differently. No. 57 "Accents" uses several accidentals, key changes, and tied notes. No. 64 "Line and Point" uses many accidentals, chromatic scales, and long tied notes.

quality. Students also have to cross one hand over the other. Crossing hands is not necessarily a new concept to them, as many lessons begin with the concept of location and similarity between octaves, but there is little assistance provided such as fingerings or instructions to add to the ease.

Persichetti's "Prologue" is a Level 2 example with a short atonal passage (Example 5.2). The tonality in the entire piece is ambiguous; however, the use of continuous triads in both hands keeps the listener's perception wandering and left to focus on longer chords as possible resolutions. Both hands are playing seemingly unrelated triads in the opening because they use different accidentals. Some of the dissonances are more intense than others but they are not more difficult to produce. For children who are not frustrated by triads of different varieties, I like to use this piece to introduce dissonance because it prevents students from associating dissonance with complexity. Children find the chords physically equal.[32] The most difficult passage is mm. 5-8 as chord shapes become non-tertian for the first time.

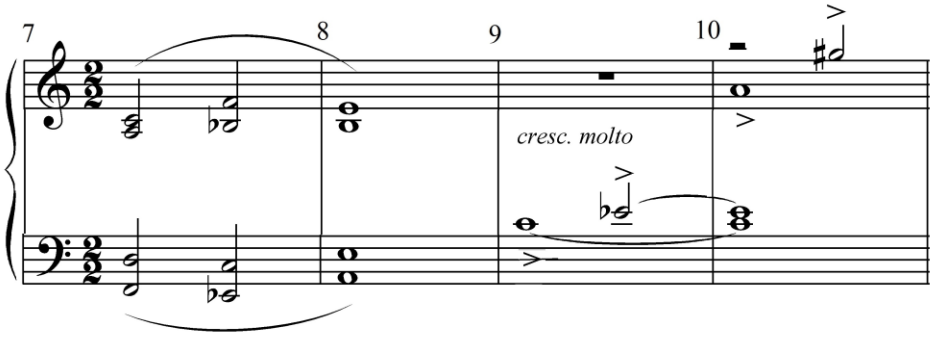


Example 5.1: Mageau's "Clouds," mm. 1-2

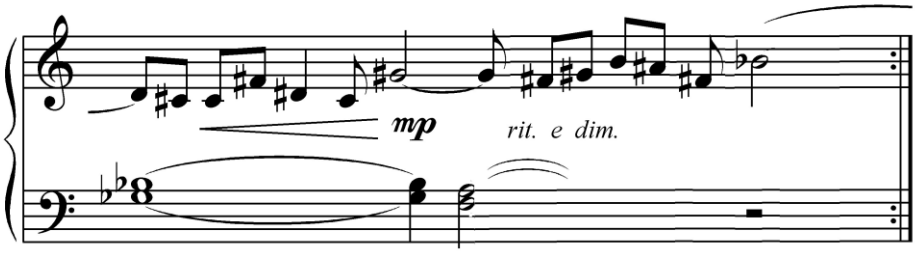
[32] Persichetti's "Masque" provides exposure to an ambiguous tonal center and feels like the type of arrangement beginners are accustomed to with accompaniment in the left hand and melody in the right hand. The dynamic instruction "*dim. Poco a poco*" leads to very musical playing as students play dissonance passages softer and with more care.

It involves fewer notes than the proceeding chords, but the unusual voicing lessens the familiarity for beginners. Measures 9-10 are atonal and are not as physically challenging as the material before it. The notes are separated by large intervals, accented, and held so that the sonorities combine.

Persichetti's "Arietta" from *Little Piano Book* is Level 3 (Example 5.3). This freely atonal piece is beautiful and musically accessible, but difficult to execute. The phrases are irregular and in free meter, separated by each chord change in the left hand. The ambiguous meter gives the player some freedom to take their time and play expressively; however, there are several accidentals, enharmonic spellings, and intervals rarely seen by beginners. With no fingering assistance, the level of note reading is fairly advanced.



Example 5.2: Persichetti's "Prologue," non-tertian writing in mm. 7-8 and free atonality in mm. 9-10



Example 5.3: 3rd line of Persichetti's "Arietta"

Covello's "Closer and Closer to the Sun" features atonality at Level 2 (Example 5.4). This piece is much more demanding than the others discussed in this chapter including "Arietta."[33] The right hand is repetitive, trilling on the same major third for most of the first half. The left hand moves across several octaves, playing a combination of chords and pitches both below and above the right hand (Example 5.4a). Although it repeats notes and chords, it creates biting dissonances. The left hand has to perform difficult tasks such as trilling on a minor second as the right hand is trilling on a major third. The student also has to read accidentals which they may not have encountered yet such as B sharps (Example 5.4b).

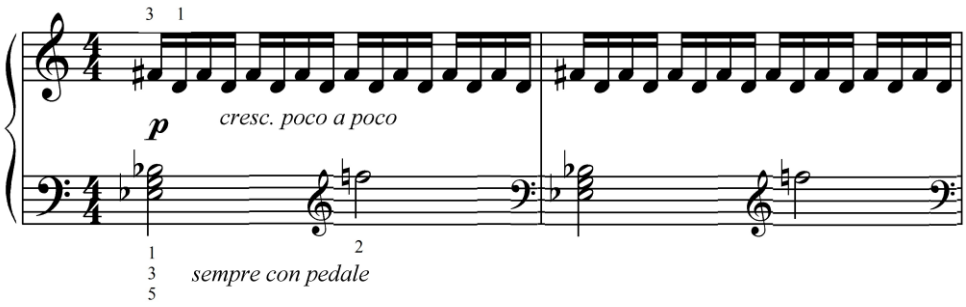
Demands in the second half are so different, it almost feels like a completely different piece (Example 5.4c). The presence of E-flat major triads in the left hand with F major triads in the right hand is not more tonally ambiguous than Persichetti's "Prologue," yet trying to move these distances at a quick speed in both hands can cause players a lot of frustration. Both hands have wide register jumps to different chord locations. In addition, not all Level 2 players can find E flat major chords quickly, in multiple octaves. The clefs frequently change throughout this piece making it more difficult to read. The required motions during these moves are never in the same order, adding to the physical difficulty and possible confusion.

Solutions

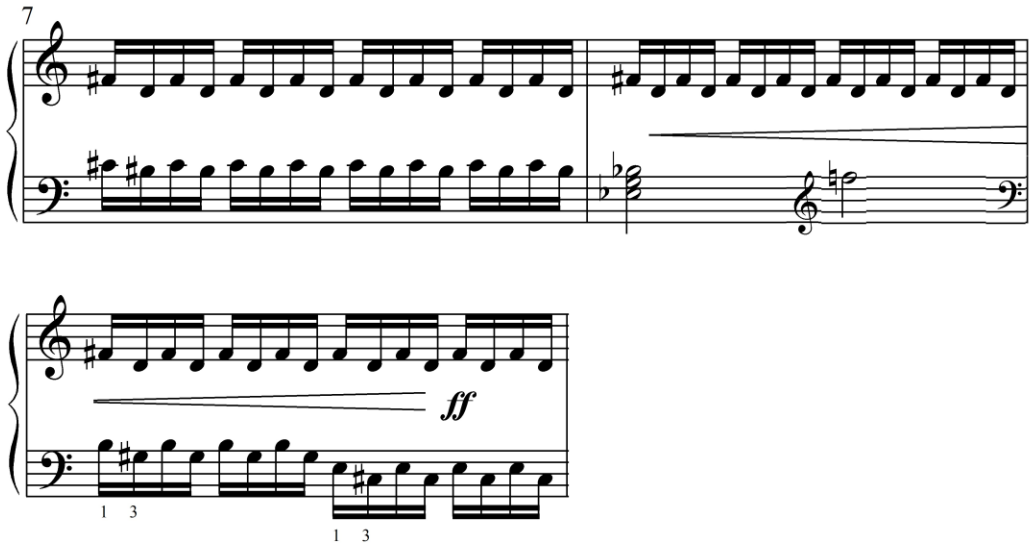
For my compositions, I limited the number of challenges by focusing on one difficult aspect of atonal music at a time. Acknowledging that the sounds themselves will make these pieces challenging enough for beginners, I omitted changes in clef, enharmonic spellings, severe hand-shape differences between the hands, and intervals or fingerings which would be uncomfortable for small hands. These are skills that will be acquired later. I have simplified

[33] "Closer and Closer to the Sun" from Covello's *Echoes and Images*, book II is the same level as several movements of Persichetti's *Little Piano Book*, but it is much more challenging.

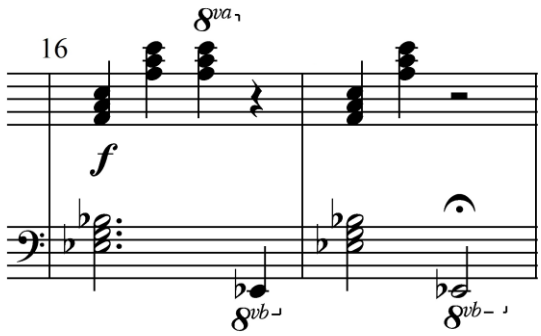
a: Left hand crossing over right, mm. 1-2



b: Difficult trilling intervals in mm. 7-9



c: Difficult register jumps, mm. 16-17



Example 5.4: Covello's "Closer and Closer to the Sun"

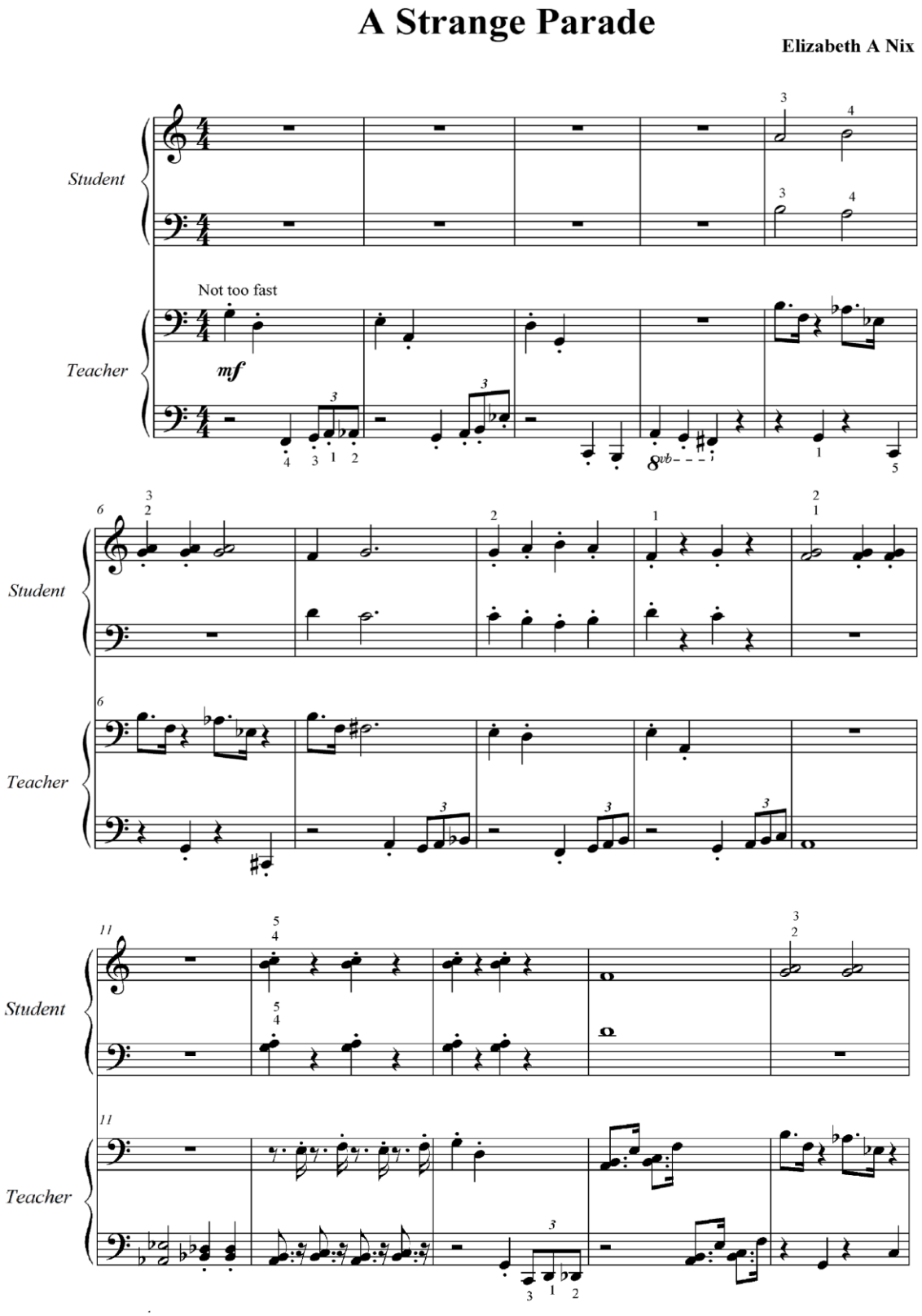
skills required to play the literature discussed so that beginners can approach atonal literature with less frustration. My goal for my compositions was to make earlier exposure possible as well as to prepare students for the literature most commonly used.

Exposure to the sound quality of atonality can be achieved with the smallest amount of difficulty in the form of a duet. “A Strange Parade” is an atonal duet in which the student remains in fixed five-finger positions on white keys (Example 5.5). This Level 1 piece allows beginners to gain exposure to atonality without having to relocate, change hand shapes, or play any accidentals. The only intervals used in the student’s part are seconds. Stationary positions F in the right hand and G in the left hand are not commonly seen together, but are both familiar to beginners. Hands do not play together for the majority of the piece and passages that do use both hands involve mirroring for added ease. The rhythm in the student’s part is similar to marches approached in their method books. The student’s part is unusual sounding, but approachable, making it easy to practice at home. The teacher’s part creates more dissonance when added, so the exposure to atonality is aurally based at first and easy for students to participate in the production.

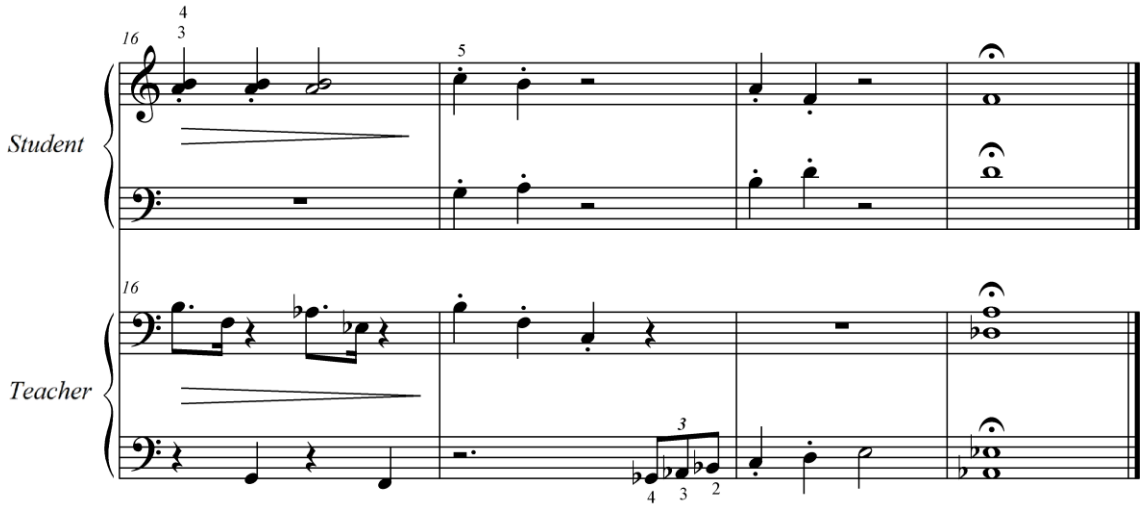
Very young students are able to relocate on the piano, but can only do so easily if it is to positions they know and at a reasonable pace. Students have trouble relocating to unpredictable pitches quickly, and also to chords especially if they have to vary hand shapes between moves. Because much of the existing literature does not provide assistance with fingerings, position names, and directional hints, students must have a higher level of knowledge and experience in order to successfully execute it. A higher number of moves will typically result in a higher level. But even a few moves can be frustrating if the content is too complicated.

"Bigfoot Takes a Piano Lesson" and "Bigfoot Tries to Practice" are Level 1 exercises for students to experience large distances between the hands (Exercise 4.6). In the first exercise, the right hand plays five-note clusters while the left hand is in low A position. Students with a smaller arm span can omit the *8vb* indicated. The purpose of this piece is to help students to relax while their hands are far apart. I have found in my lessons that the imagery of "bigfoot" walking helps students to find a relaxed rocking motion with their bodies. The cluster helps the tonality remain ambiguous without too much dissonance. In the second exercise, the only element that changes is the right hand position moves to black keys, making it polytonal. A picture is provided so that Level 1 players can find the position.

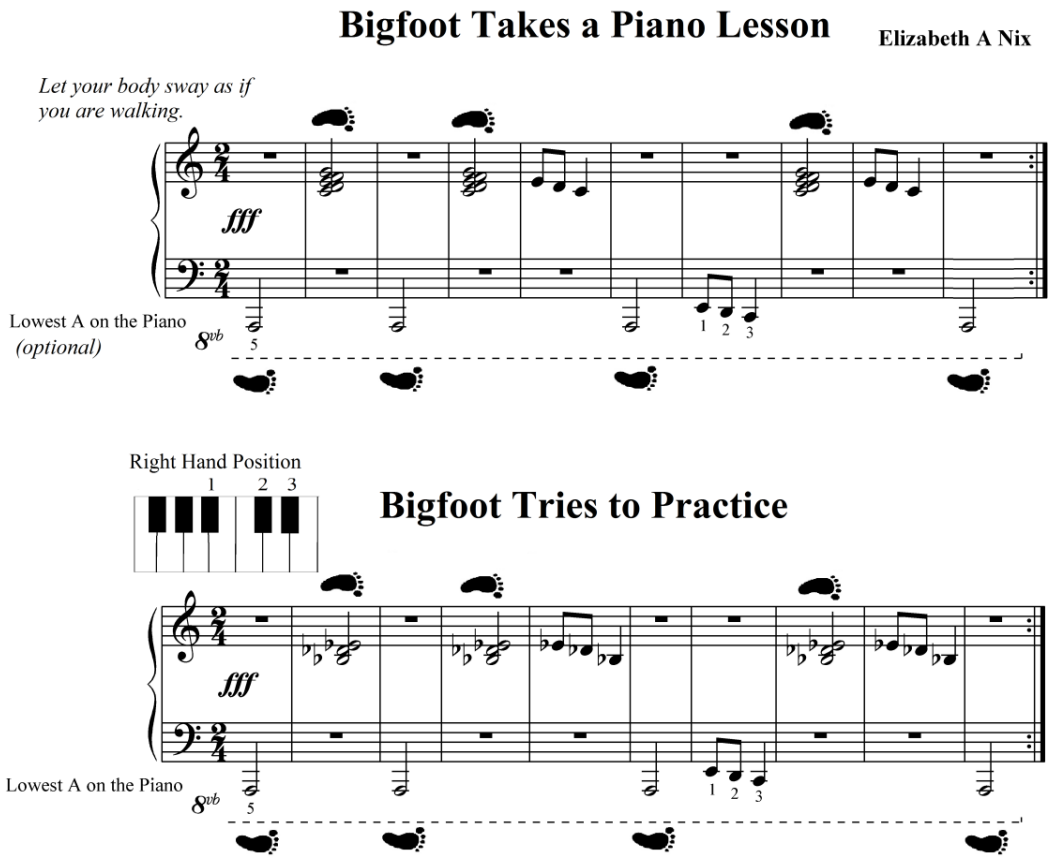
Once a student is comfortable with extreme register differences between the hands, "Low-Note Thunder and Lightning" is appropriate. For this Level 2 piece I have simplified its relocations so that each hand is responsible for locating a particular type of pitch or area (Example 5.7). The right hand has to relocate several times, but only to various sets of two black keys. Arrows have been added to lessen directional confusion. Adequate rests are given before the student has to play in the new octave so that there is less pressure. The left hand begins in C position playing fourths. This requires some weight shifting within the hands, but in a familiar position. Students have to find more than one bass note so I have included note hints to lessen the difficulty as pitches move outside of a beginner's comfortable register.



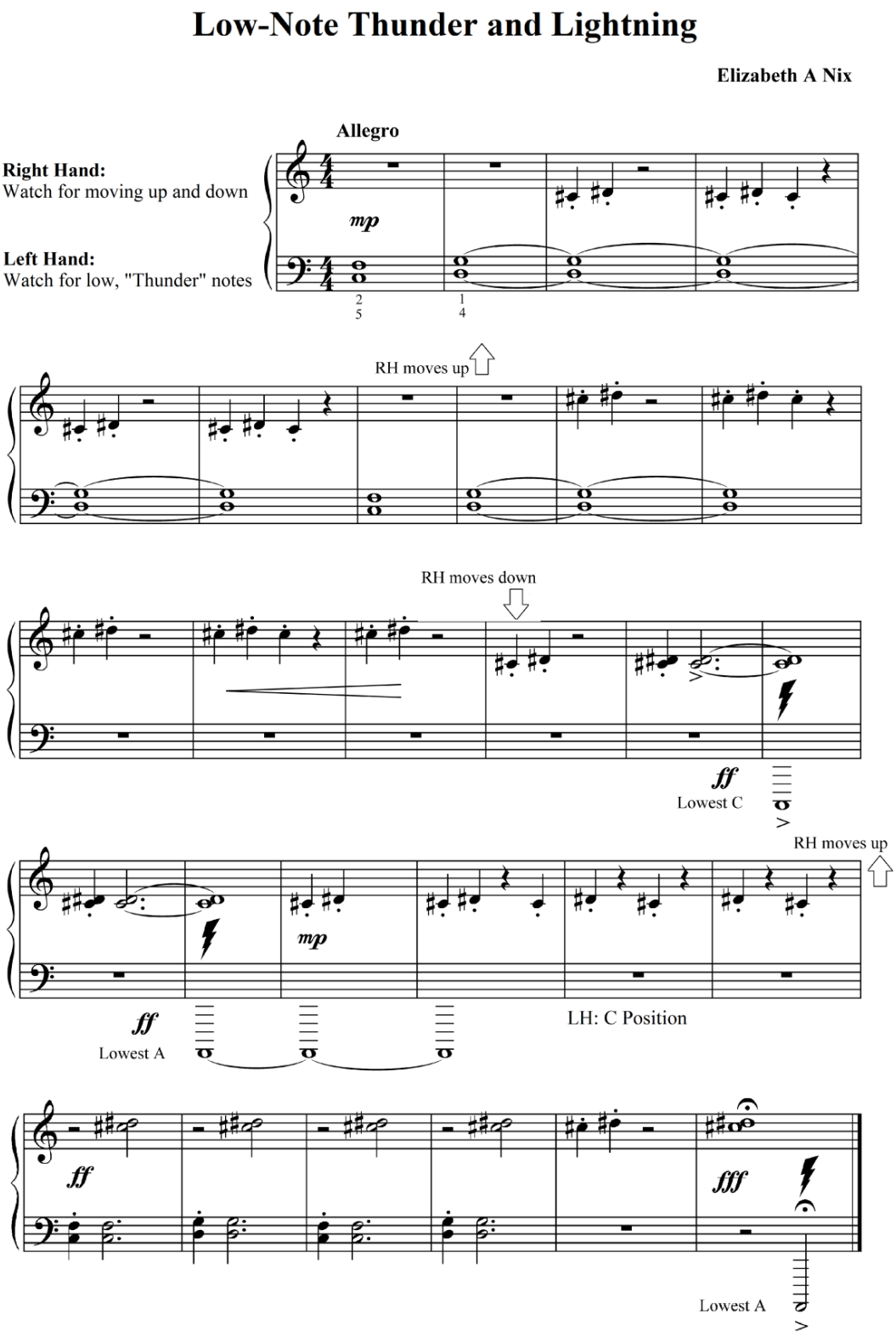
Example 5.5: “A Strange Parade,” Level 1 duet



Example 5.5: "A Strange Parade," continued



Example 5.6: "Bigfoot Takes a Piano Lesson," Level 1 exercises

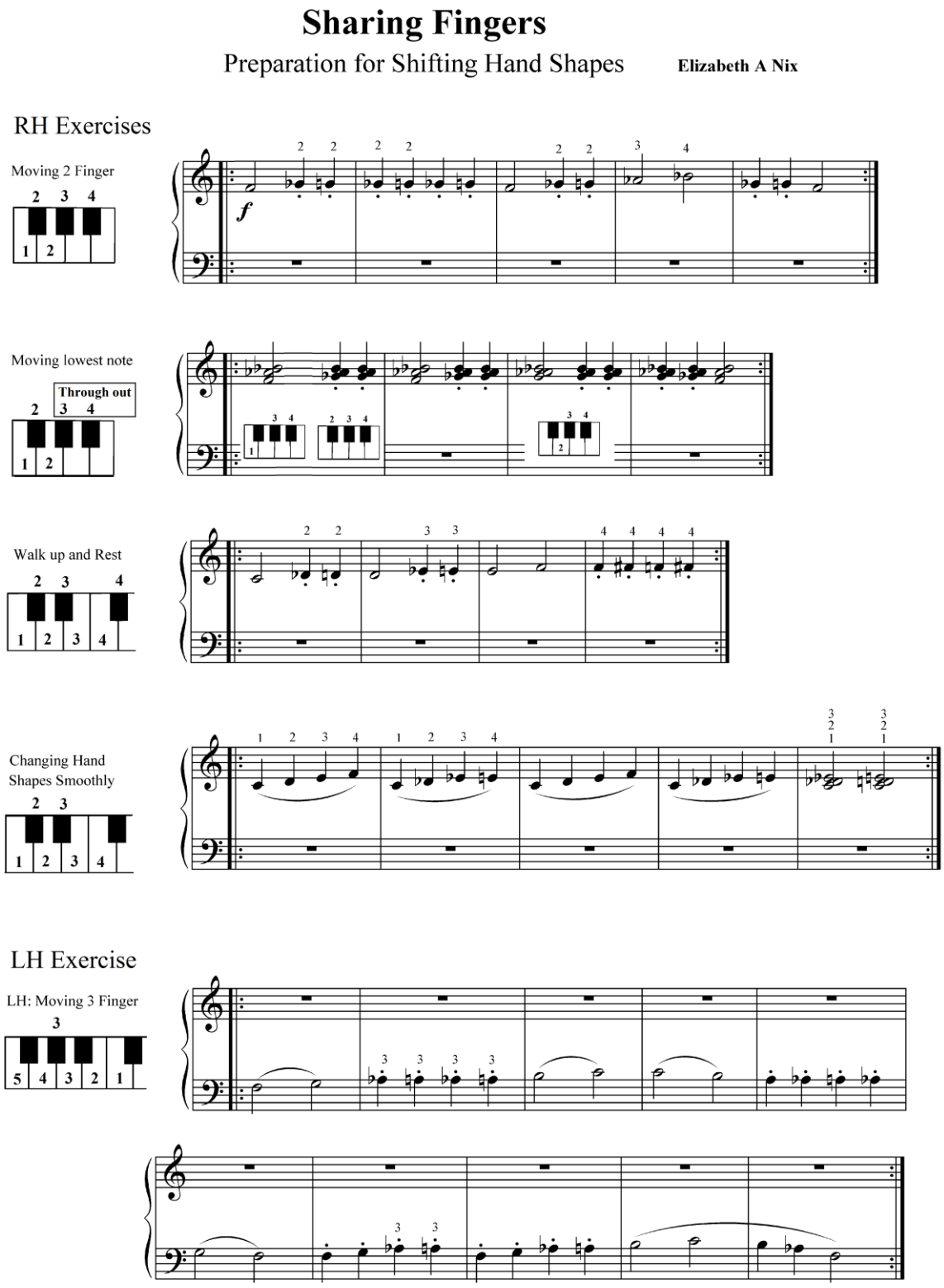


Example 5.7: “Low-note Thunder and Lightning,” Level 2

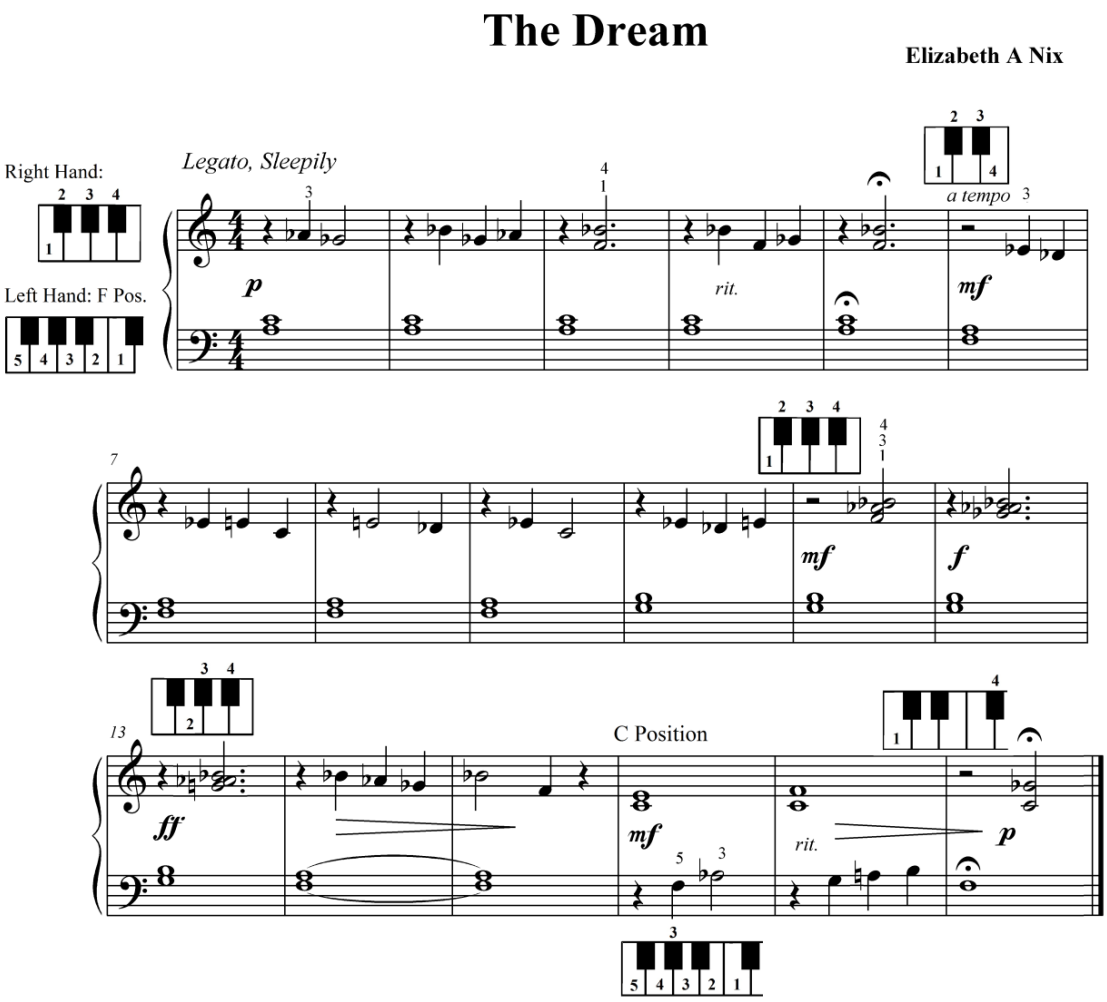
As a result of avoiding a tonal center, many atonal pieces contain numerous accidentals. It is important to note that beginners are not afraid of black keys, but accidentals do make a piece appear more challenging to a beginner. On the other hand, they do not need to understand their purpose in order to play them if the position is provided with a picture.

Accidentals are an easier concept for some to pick up than others. Kinesthetic learners have a very directional understanding of accidentals, but they can still become confused if a shift in hand shape is required and they have to decipher it for themselves. “Sharing Fingers” is a set of five Level 1 exercises designed to prepare students physically for shifting hand shapes (Example 5.8). In particular, shifting hand shapes where a finger must “cover” more than one pitch. Pictures are provided so that students can easily see which individual finger is responsible for the shift in hand shape. This skill of being able to shift hand shapes is required to execute any of the pieces within this chapter.

“The Dream” is Level 2 because it contains a few right hand position changes with accompanying whole notes in the left hand (Example 5.9). This freely atonal piece is made easier by the left hand remaining in F position throughout, playing various repeating thirds. Because the left hand plays first in each phrase, the student will be encouraged to keep their eyes on the music so that they are reading both parts at one time. Many of the right hand passages are scalar or skipping by a third. The number of position changes will encourage students learn to look ahead. Aural learners may find that this piece does not cater to their skills, but the exposure they can gain from playing a piece without a tonal center can have lasting effects on their perception of what makes music. Because there are little similarities between melodic passages, this piece may be the most difficult for kinesthetic learners, but it also may be the most useful for them as they must develop new skills to execute it well.



Example 5.8: “Sharing Fingers,” Level 1 exercises



Example 5.9: “The Dream,” Level 2

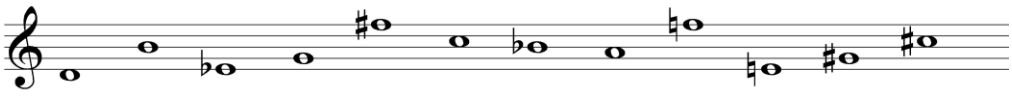
Chapter 6: Serialism

Serialism is a method of composition where an element, usually pitches, are given in a particular order and that order is manipulated throughout a composition. This new method was meant to bring mathematical organization to post-tonal chaos, bringing about a new way of developing material and giving music a new format of construction. Serialized pitches (i.e. the motive) are known as "rows," the first being named "prime." The prime row is then built into a multitude of row variations related to each other in length and though transposition, inversion, retrograde, or retrograde inversion. Typically a matrix is used to show these many variations and their relationship to one another. This method, made popular by Arnold Schoenberg, creates an untraditional organization designed as a response to atonality in the 1920s.

The most common form of serialism involves all twelve pitches classes within an octave, known as the twelve-tone system. An original twelve-tone row does not repeat any pitch class; because a specific key is not intended, mixed enharmonic spellings are common (Example 6.1a). A matrix is then used to give all possible row forms based on the interval order used in the prime row (Example 6.1b). The standard matrix for a twelve-tone row gives 48 possibilities: reading rows from left to right gives all "prime" forms (transposed forms), from right to left gives the prime in reverse or "retrograde," from top to bottom gives the prime in "inversion," and from bottom to top gives the retrograde of the inversion or the "retrograde inversion." Pitch orders that would suggest a scale, tonality, or point of resolution are not usually the focus of serialism, but can occur if the composer wishes. Since all twelve pitches need to be stated once before moving on, the rows tend to move in disjunct lines that

can seem unpredictable at times. Wide register spans, along with detached, short, and seemingly random lines are common characteristics, known as pointillism.[34]

a: An original twelve-tone row



b: Matrix providing 48 variations of the twelve-tone row

Inversions

	2	11	3	7	6	0	10	9	5	4	8	1	
2	D	B	Eb	G	F#	C	Bb	A	F	E	G#	C#	2
5	F	D	F#	Bb	A	Eb	C#	C	G#	G	B	E	5
1	C#	Bb	D	F#	F	B	A	G#	E	Eb	G	C	1
9	A	F#	Bb	D	C#	G	F	E	C	B	Eb	Ab	9
10	Bb	G	B	Eb	D	G#	F#	F	C#	C	E	A	10
4	E	C#	F	A	G#	D	C	B	G	F#	Bb	Eb	4
6	F#	Eb	G	B	Bb	E	D	C#	A	G#	C	F	6
7	G	E	G#	C	B	F	Eb	D	Bb	A	C#	F#	7
11	B	G#	C	E	Eb	A	G	F#	D	C#	F	Bb	11
0	C	A	C#	F	E	Bb	G#	G	Eb	D	F#	B	0
8	G#	F	A	C#	C	F#	E	Eb	B	Bb	D	G	8
3	Eb	C	E	G#	G	C#	B	Bb	F#	F	A	D	3
	2	11	3	7	6	0	10	9	5	4	8	1	

Primes

Retrogrades

Retrograde Inversions

Example 6.1: Twelve-tone row and its matrix

[34] Pointillism is a post-tonal texture involving short, widely spaced, dot-like musical ideas echoing the movement of pointillism in French art.

Issues and Solutions

The concept of serialism commonly produces numerous inherent difficulties for any young musician. The quantity and spacing of notes alone is a huge challenge.[35] Beginners also have no experience reading or playing all twelve pitches in a single composition without some sort of scalar goal or anticipated direction.[36] If the student has experienced accidentals at all, they would likely be few in number in tonal keys signatures. Twelve-tone rows contain a minimum of five accidentals, causing a large gap in difficulty for any inexperienced beginner. Compounding the issue of plentiful accidentals, enharmonic spellings add to the visual difficulty. A traditional matrix will usually have all spellings present by the time it is completed. A difficult quality of pointillism is extreme changes in register requiring skills and familiarity of the keyboard beyond the level of an early player.

Although some beginners have a natural ability for intervallic reading, their understanding of intervals is fairly limited. Experiences with the term "interval" in early levels include pieces that focus on a particular interval by repeating it frequently. Teachers who find ear training beneficial may have used the term interval around students in a more aurally based capacity. In general, a young beginner's perception of intervals involves either distances on the keyboard or distances within the hand. For example, a fourth is recognized by beginners for its distance between the fingers (from fingers one to four, or two to five) or for its distance only on white keys, instead of by the distance in half steps on the piano itself. The result is a very superficial understanding, and limited perspective of intervals. This limited

[35] Students with mathematical minds may understand these concepts much earlier, as the use of numbers may help them to make many connections.

[36] "The row becomes the formal element which, unfortunately for the listener, is perceived more visually than aurally." (Thompson, 35)

perspective makes this compositional method too complex for most beginners to grasp conceptually.

The difficulties of serialism are evident when attempting to find accessible literature for beginners. For example, Ellen Thompson's *Teaching and Understanding Contemporary Piano Music* provides elementary level examples of many post-tonal techniques, but excludes serialism altogether.[37] *Kinderstück* by Anton von Webern is a set of serial pieces intended to introduce serialism to children. Due to the difficulty of the concept and execution of the piece, it only includes pieces that are Levels 7 and 8 (Magrath, 549).

There are some simpler pieces that mimic twelve-tone serialism such as Robert Starer's "Twelve Notes Twelve Times," that give successive unordered statements of the chromatic scale, in contrast to ordered twelve-tone row forms.[38] In Starer's piece, twelve presentations of the chromatic scales are given and numbered so students can track where the twelve pitches begin again. This piece is Level 3, but could cause difficulty for a student whose reading is weak. Because the twelve pitches of the chromatic scale are divided between two chords at a time, the dissonance still involves qualities of tension and resolution that would not be present if the twelve-tone method was used.

Students can practice finding accidentals quickly if they are playing pieces with many chromatic scales. Unfortunately, executing accidentals on the piano when they are moving in a non-scalar, unpredictable way is much more difficult than playing chromatic scales. "Count Down—Blast Off" from *Adventures in Space and Time* by Ann Riley uses pointillism (Thompson, 149). This piece contains all twelve pitches but is not serial. Ross Lee Finney

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[37] The easiest example of piano literature using serialism in the Magrath is Level 5. Both Magrath's and Thompson's books are well known, so the absence of early serial compositions adds to the argument that this is an advanced topic.

[38] "Twelve Notes Twelve Times" is no. 12 in Starer's *Games with Names, Notes, and Numbers.* Although it is not serial, its format can expose students to some twelve-tone features.

has several movements in *32 Piano Games* that require wide and unpredictable jumps, yet this also does not expose students to the seemingly unpredictable tone orders found in serialism.

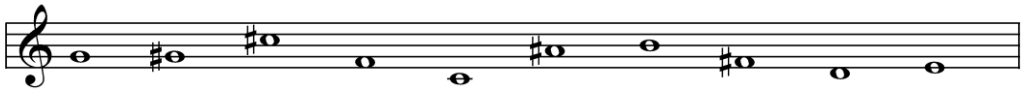
Smaller Tone-Rows

A twelve-tone composition is usually predisposed to look complex because of the number of notes. Young beginners can experience the method of serialism in its simplest form by using a smaller row. The easiest denominations for students would be five or ten to fit the hands well. Initially, it is easy to assume that a decrease in length of the original row may create an easier piece; however, using the traditional, intervallic method of transposition and inversion on a matrix will result in all twelve pitches appearing, even if the prime row is smaller. When dealing with a ten-tone row, the two pitches which were omitted in the prime row will appear in the first inversion column (Example 6.2a). The ten-tone row results in less row variations, but all twelve pitch classes appear once the row is inverted (Example 6.2b).

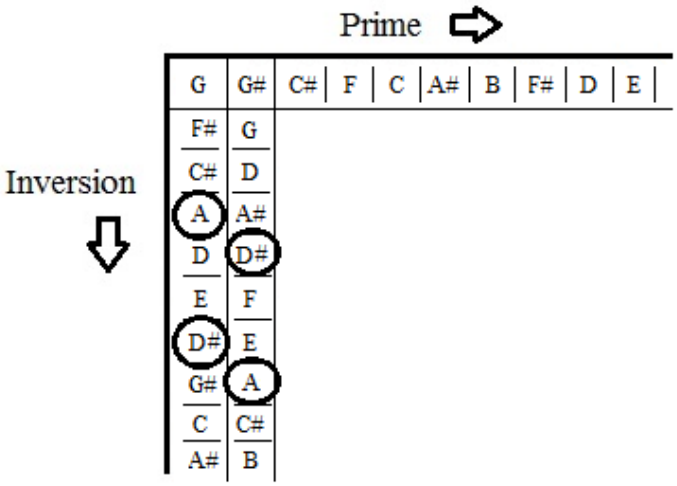
In order to prevent the appearance of new pitch classes as the matrix is filled out, I have replaced the transposition of precise pitch classes with a transposition of fingering or finger movement (Example 6.3a). This inverts the distances between notes within the hands, instead of an intervallic inversion. A “ten-finger” row can be seen divided between the hands into two positions C major and F# major. This method is still considered serialism based on it having ordered elements; however, the means of inversion have changed and the resulting material is simplified. Instead of the first inverted note being a minor second in the opposite direction, it will move two fingers to the left. By numbering all ten fingers from left to right and then inverting distances within those ten numbers, students experience serialism without having to relocate (Example 6.3b). Numbering the pitches also gives them all equal

importance, and the rows are still long enough to expose students to the new sound of post-tonal organization.

a: A ten-tone row, D sharp and A natural omitted



b: Two omitted appear when inverted using the intervallic method

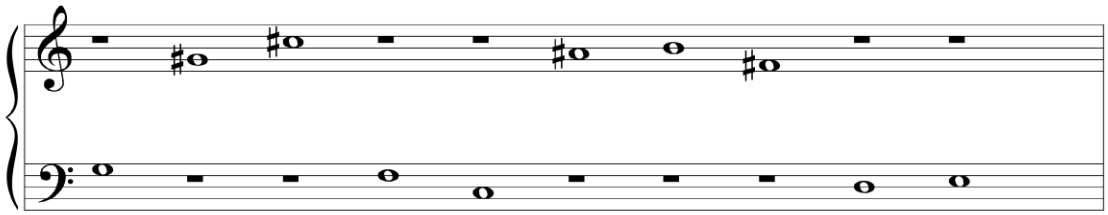


Example 6.2: Appearance of twelve pitches when inverting a ten-tone row using intervals

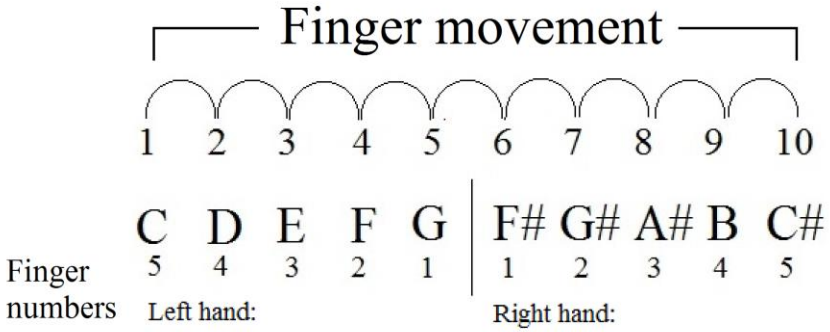
"The Equation" uses this ten-tone matrix to expose students to serialism that fits the hands (Example 6.4a & b). By using two positions that share no common tones, the students can reach all ten pitches without moving from C position in the left hand, or F# position in the right hand. By combining the pitches from both hands, a disjunct line is formed, making it Level 3. I kept the texture monophonic except for a few overlapping notes to make it easier

to follow and read, therefore the row is easier to identify both visually and aurally. Students are able to hear that a non-tonal method of composition was used from the unpredictable sound and unusual organization. Finger numbers were added to lessen the difficulty as well as limiting the boundary interval for each hand to a perfect fifth.

a: Ten-tone row divided between the hands in positions C major and F# major

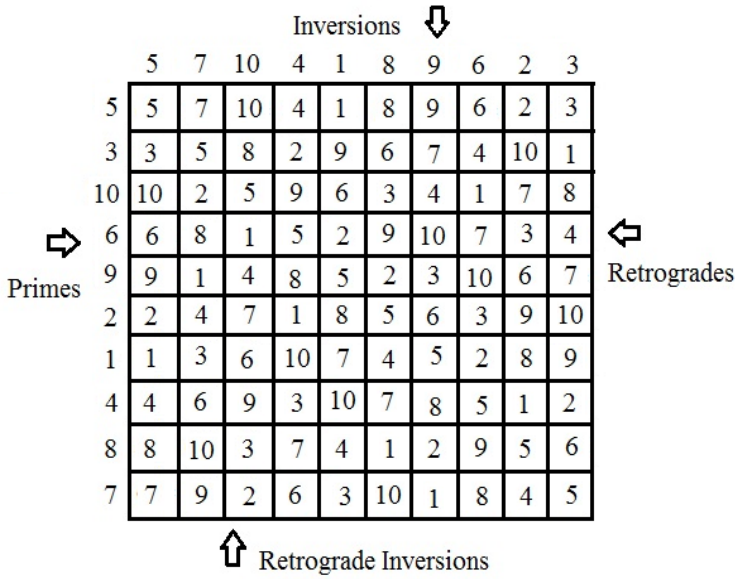


b: Movement across ten fingers using finger transposition

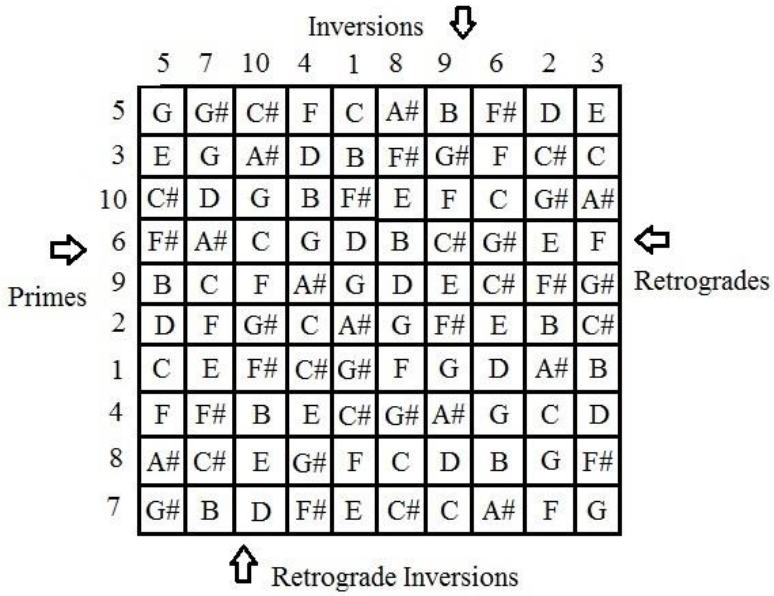


Example 6.3: Ten-finger row and the movement across fingers for inverting

a: Ten-finger matrix used for “The Equation,” showing pitch numbers

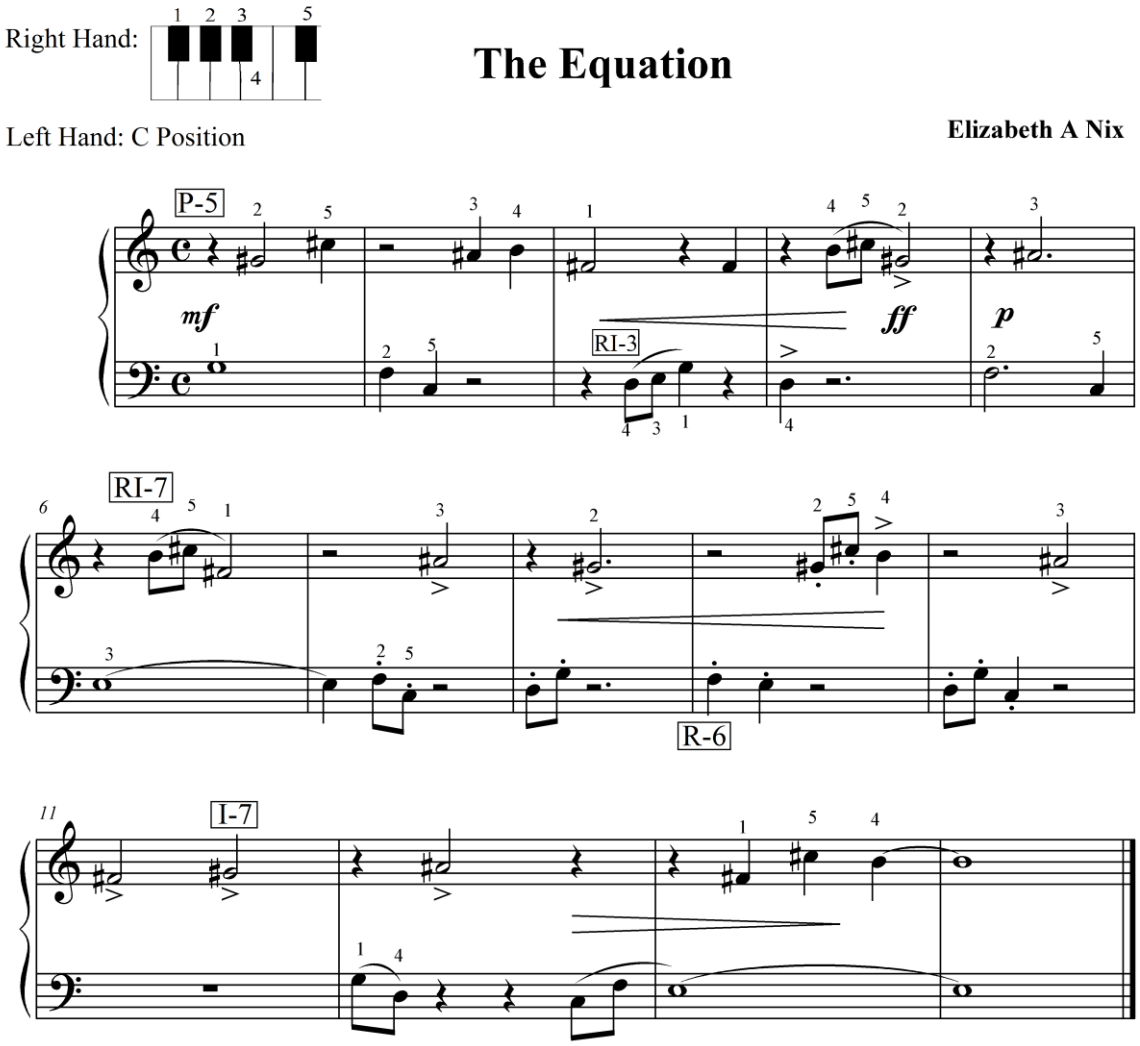


b: Ten-tone matrix, showing pitches associated with each finger number



Example 6.4: Matrix for “The Equation,” Level 2

c: Composition using 10-finger serialism



Example 6.4: Continued

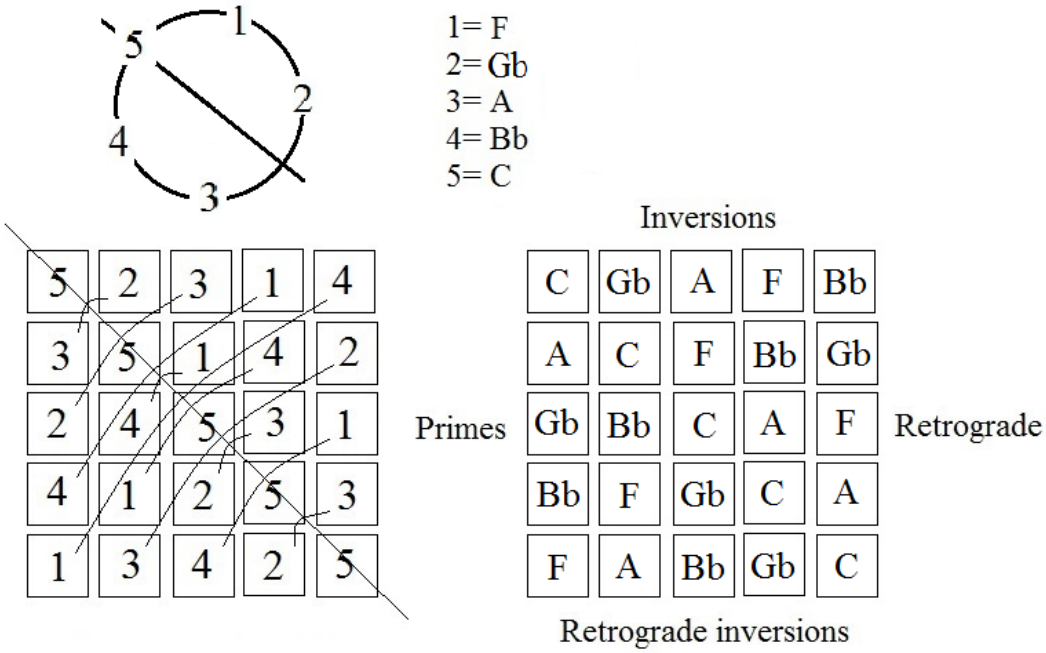
Another way to fill in the matrix using a means other than intervallic inversion is to fold the matrix in half at the diagonal line, using the first finger of the row as a pivot point for the entire matrix. I have done this using a single hand this time, thus creating a five-finger matrix. This method of folding the matrix results in twenty-five variations, which is considerably less complicated than the forty-eight row forms in a traditional matrix, but still

gives much to choose from when composing for the young (Example 6.5a). I chose notes that are very close together, but avoided using a common pentascale so that the piece would not contain tonal suggestions that would lessen exposure to post-tonal organization. Using a well-known pentascale, such as C major, is recommended if teachers want the simplest demonstration of how a this type of simplified matrix works for students.

"A Confident Mouse" is a Level 1 piece composed using this five-finger matrix (Example 6.5b). I used only the spellings G flat and B flat to lessen the visual confusion that would appear if F sharps and A sharps were also present. The hands interlock with the right hand on an F arpeggio and the left hand on the two interceding black keys. Rhythms are easy and accessible to beginners. Also, the rows are labeled so students can be shown on the matrix where the sets were derived from without going into immediate detail about matrix construction.

There are a multitude of options when developing new practices for this technique. The folding method could easily be applied to a ten-tone matrix as well, instead of measuring the finger movement like in "The Equation." Likewise, a simple five-finger matrix can also be used for pieces using two hands. For "The Equation," I numbered pitches 1-10 in ascending order. I varied this a bit in "The Confident Mouse" by numbering the pitches in order of appearance, making the first pitch the key element for folding the matrix.

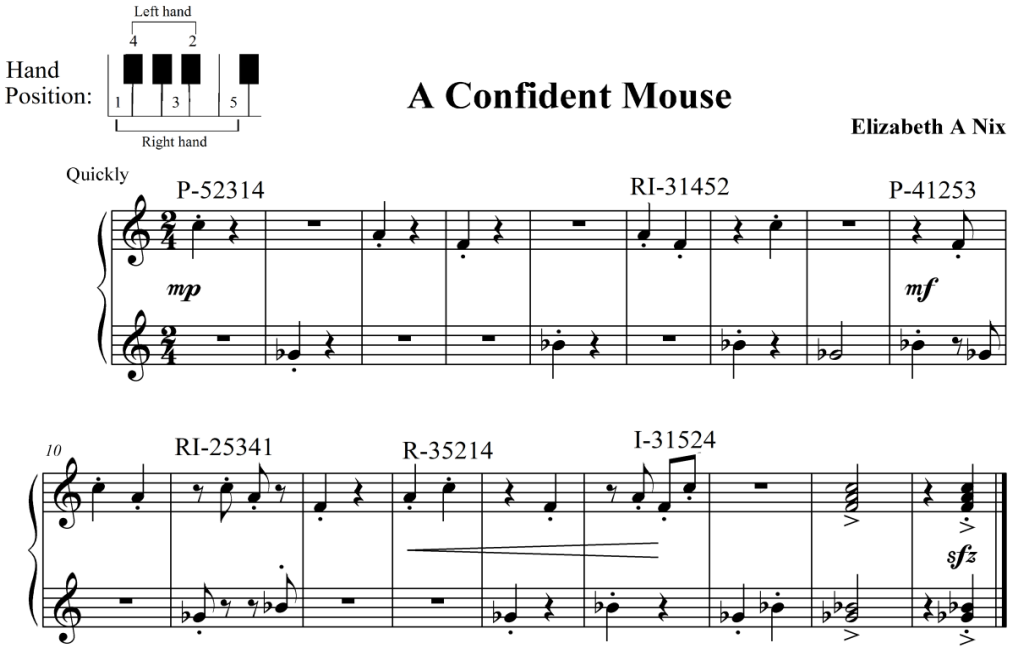
a: Folding method: finding pitches opposite to one another in a in a five-finger position



5	2	3	1	4
3	5	1	4	2
2	4	5	3	1
4	1	2	5	3
1	3	4	2	5

C	Gb	A	F	Bb
A	C	F	Bb	Gb
Gb	Bb	C	A	F
Bb	F	Gb	C	A
F	A	Bb	Gb	C

b. Piece using the folding method and five-finger matrix

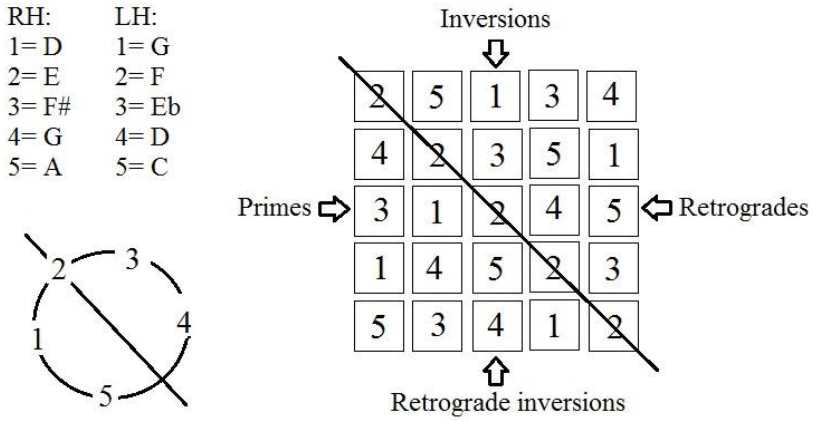


Example 6.5: "A Confident Mouse," Level 1

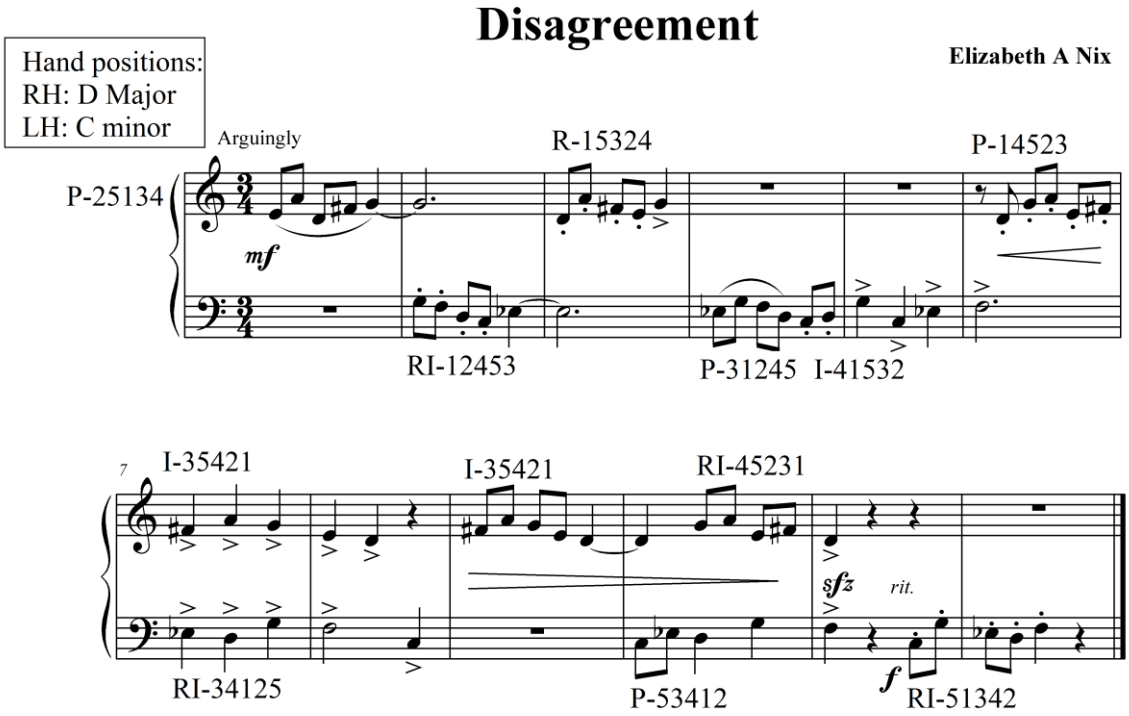
In “Disagreement,” I tried another way that acknowledges finger numbers in the sense that beginners recognize them: fingers 1-5 mirrored in the hands. Mirroring enables the organization of a five-finger matrix to be used interchangeably between the hands. Because fingers 1-5 go in the opposite direction in the hands, inversion is inherent. If there are too many common tones between the fingers, the result can be an order of pitches that seems less serial, so I chose two positions with few common tones so that a single pitch would not sound more important than the others.

In “Disagreement,” G is the only common tone between the two positions. Using a five-finger matrix for both hands results in two, five-finger rows instead of one, nine-tone row (Example 6.6a). “Disagreement” is a Level 2 piece, but the concept and explanation is more appropriate for a Level 2 or 3 student (Example 6.6b). As the two hands are independent from one another and at times move together, the texture is contrapuntal. The most important exposure to be gained would be that there are interesting methods of composition beyond traditional writing. Since this piece is meant to sound like an argument between the hands there are several articulation, dynamic, and stylistic differences.

a: Five-finger matrix to determine pitch orders for two positions: D major and C minor



b: Composition using five-finger serialism



Example 6.6: “Disagreement,” Level 2

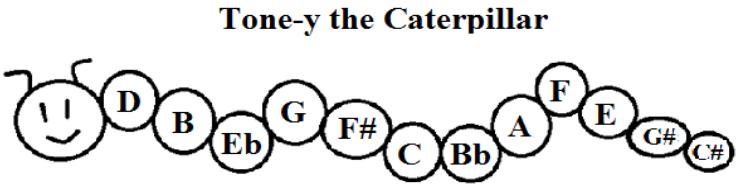
Visual Assistance

The look of difficulty increases as a variety of rhythms are used. Many advanced twelve-tone pieces use uncommon rhythms and pointillism. For these compositions, I left rhythmic qualities and general register choices up to the student. Allowing students rhythmic freedom lowers the difficulty by removing it as an element. Students seem to enjoy coming up with the tempo and rhythm themselves and knowing there is no "wrong" way. This freedom can have an interesting effect on the direction of the lesson. If good counting and meter work is common practice, students can appreciate making choices on their own.

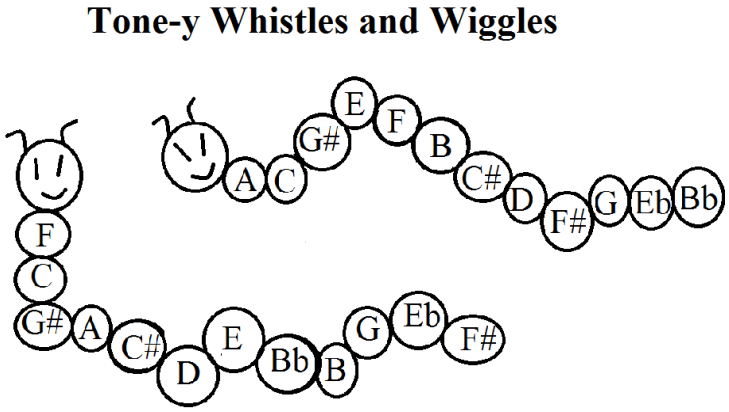
As children develop a knowledge of flats and sharps, I typically have to review the concept with students several times to make sure they grasp the concept both spatially (twelve half-steps) and directionally (flats go left and sharps go right). Once a student has an understanding of accidentals and can find them easily upon request, they are capable of locating the pitches of a twelve-tone row. The main issue with a twelve-tone row on the staff is that it looks very complicated. If there are various rhythms involved, even a monophonic line can be very complex in appearance. Exposure to the sound of twelve-tone serialism can take place as soon as they understand accidentals, and before they are able to read that many pitches on the staff.

In "Tone-y the Caterpillar" I have simplified the appearance of a twelve-tone row to look more appealing to children (Example 6.7a & b). If a student is accustomed to finding various flats and sharps by name, this exercise can be easy as well as meaningful aurally. Students can use any rhythm they like. I have found my students typically play intervals they feel most comfortable with more quickly than others. By keeping their hands close together, the chance of students grabbing notes in a big range is eliminated. Using a smaller range to locate the

a: Twelve-tone prime row from Example 6.1a



b: Variations from of the prime row

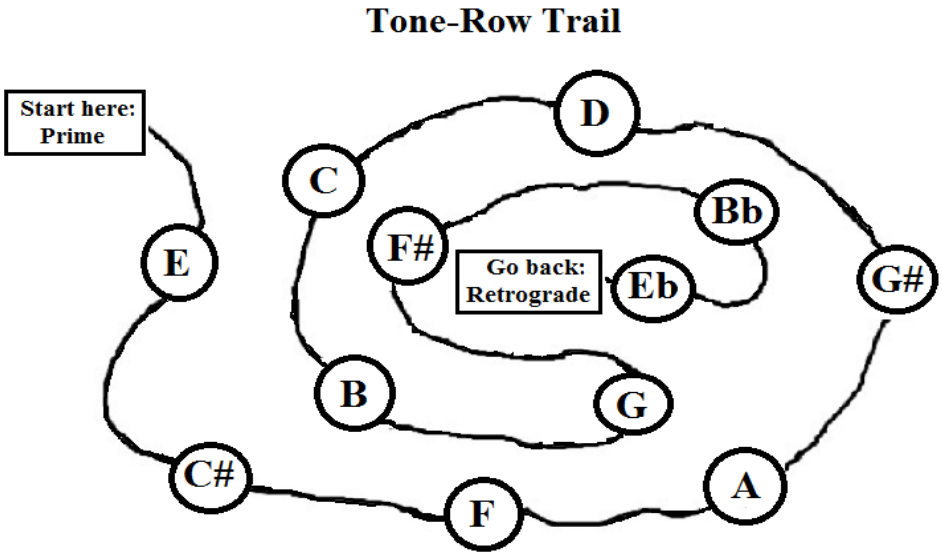


Example 6.7: "Tone-y the Catepillar," Level 1. Prime row and tone-rows R-6 and I-9 from Example 6.1b

notes makes the row easier to hear. It may be helpful to point out familiar intervals to students for them to group common patterns in the hands.

Children can be exposed to the terminology of this compositional method with less difficulty than one may expect. Children are able to grasp terms like melody, harmony, chords, arpeggios, and others, so terms unique to serialism are not necessarily more advanced. The piece "Tone-row Trail" requires similar skills of black-key identification while adding terminology such as prime and retrograde. The act of turning around and

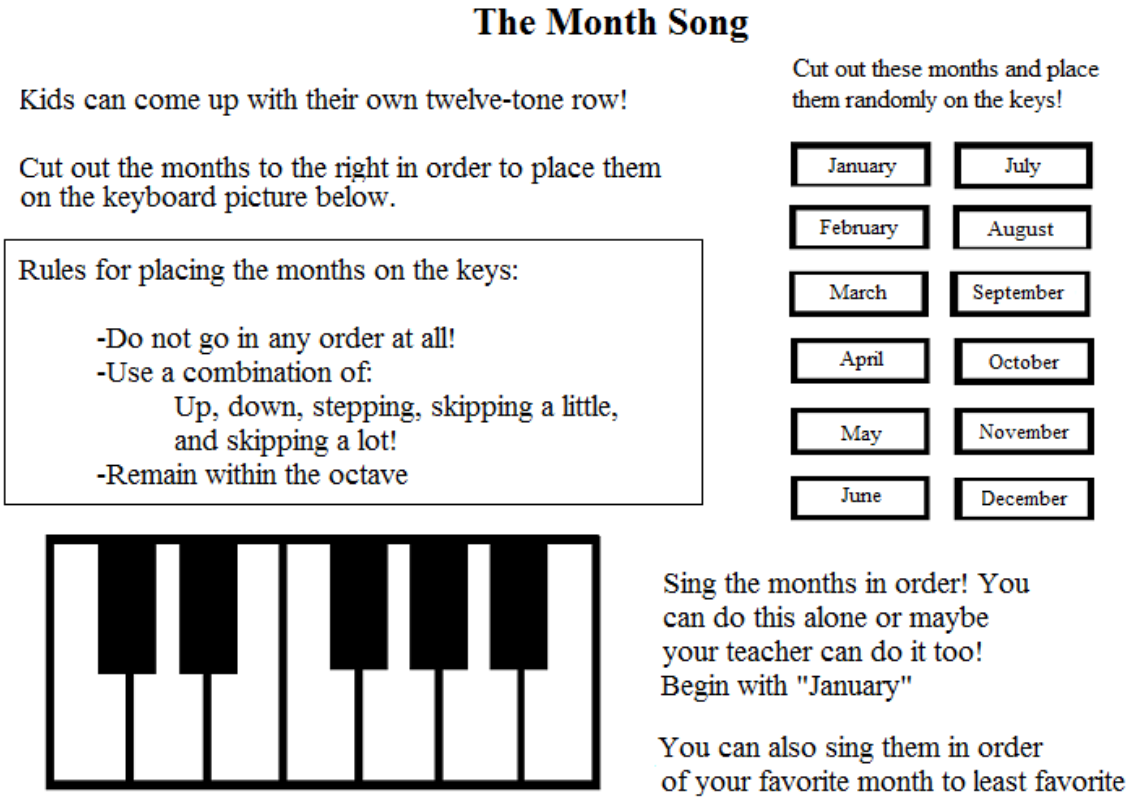
returning to the starting point allows students to experience playing a tone row in both directions.



Example 6.8: "Tone-Row Trail," Level 2 exposure to terminology, using P-4 and R-4 from Example 6.1b.

Many teachers, including myself, sing the lyrics to songs as students are playing. I also enjoy singing along with my students and find that it affects their phrasing, dynamics, and general sense of melody. A tone row is a melody, but its unpredictability might cause teachers to brush it aside. In "The Month Song," students are to cut out days of the month and place them on a picture of a keyboard (Example 6.9). The months are then identified in order and played. Teachers can sing the months for them as the student finds and plays the months in order. Another option is for students to play the months in order of their favorite to least favorite month. If the beginner can read or knows the months in order, they can sing as well. The instructions ensure that the pitches will not move in any kind of predictable order. One of the best qualities of this game is that students who know numbers 1-12 can do this

without knowing anything about accidentals, or note names. This also helps students to consider all twelve notes of an octave equal to one another. Students still find the sound of the order to be unusual, and many of them laugh as they are singing the month names. Teachers who once thought of this concept as too complex for young musicians may also come to find it useful and entertaining with these approaches.



Example 6.9: “The Month Song,” Eternalizing a twelve-tone row, Level 1

Chapter 7: Aleatoric Music

The term "aleatoric" means that some element of music is left to chance. Aleatory can take two forms: chance applied by the composer during the composing process, or some aspect of the composition left to the discretion of the performer. Both of these types of aleatory can have varied results when introduced to beginners. For example, if too much is left to chance for the performer, the player is equally as surprised by the outcome as the listener, which may be overwhelming for a student who already has performance anxiety. On the other end of the spectrum, it could relieve performance pressures because no one knows what to expect, therefore nothing can be "wrong."[39] Additionally, aleatoric works often have much more contemporary looking scores with unique notation. Some students might find the notation distracting and confusing, but others who are struggling with notation or have not experienced notation may find contemporary scores easier to interpret because much of the unique notation is not as technical as standard notation.

This type of music, no matter how it is initially perceived, can help young beginners in a number of ways. Students may gain confidence from being able to execute pieces with new freedoms. Beginners using traditional method books usually remain limited in texture and various positions for a while. This is partly because the pace of most method books hinges on note-reading knowledge. Adding aleatory might make them more comfortable with using more of the keyboard's "restricted areas" and playing more complicated textures that they could not yet read in traditional notation. Because many of these compositions feel like games, the comfort level of students may be expanded upon.

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[39] In *Teaching for Creative Endeavor,* Torrance's program encourages taking time to provide unevaluated practice and experimentation to help children learn how to elaborate on their creative ideas. (1)

The best time to introduce students to chance music is from the very beginning when they are the most neutral. For example, pitch choices of a beginner at his or her very first lesson may be more random sounding then those of a student who has played simple songs and has a sense of tonal music. Students may perceive aleatoric music as a fun musical game, or a frustrating puzzle where the answers are inaccessible. It is even possible that students with more experience with tonal music may attempt to resolve dissonances or make the piece sound tonal in another way. Perhaps one of the most difficult factors for the more controlling teachers is that they, like their students, will have no control of the outcome or what experience each student will obtain from be exposed to aleatoric music.

Covello's *The Little Avant-Garde* if full of indeterminate elements that are left open to chance or the performer's interpretation (Example 7.1).[40] This collection is particularly easy to use with young creative students whose perception of music is fresh. In most of the pieces, Covello provides the contour, number of repetitions, dynamics, and register suggestions. The exact pitches are left up to the player through a simple type of notation that can be understood prior to traditional note-reading. The only aspect of this music that my students typically have questions about involves the variety of interesting looking symbols Covello uses. Reusing symbols suggests a bit of desired consistency which may or may not make the notation more of a challenge depending on how observant the player is.

A few pieces in Finney's *32 Piano Games* contain chance elements such as indeterminate repetitions, open-ended pauses of silence or sound, and indeterminate meter.[41] Unfortunately, because this collection ranges from Levels 1-7, only one of the pieces containing aleatoric

[40] Covello encourages musical playing above all other in *The Little Avant-Garde*, including specifics or recommendations on the student's interpretation.

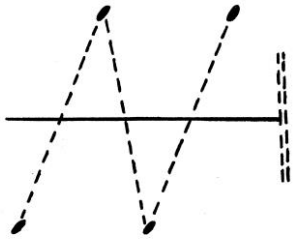
[41] This is Magrath's general description of Finney's *32 Piano Games* (361-363). Each individual piece is not explained in great detail, but Magrath makes a good description for the entire set.

elements is appropriate for players at an early age. “Middle, Bottom, and Top” is a Level 1 piece where the unfamiliar element for beginners would be a wide span in register (Example 7.2). The extreme changes in register are made easier to navigate by long pauses between moves. The student may or may not imply a meter when playing this piece. Either way the meter is not notated and therefore left open to interpretation. The rhythm is particularly interesting as the number of repetitions and speed of them is open to interpretation. It is presented in such a way that suggests an accelerando to many students, while others might choose to keep it steady. No matter how it is interpreted, students who are excelling at rhythm as well as students who need improvement could benefit from this exposure. Likewise, the extreme differences in dynamic execution can result in a very musical player. Although alternating fingers on a quickly repeating note would be new for beginners, the sparse texture makes it easy for students to be introduced to new things.

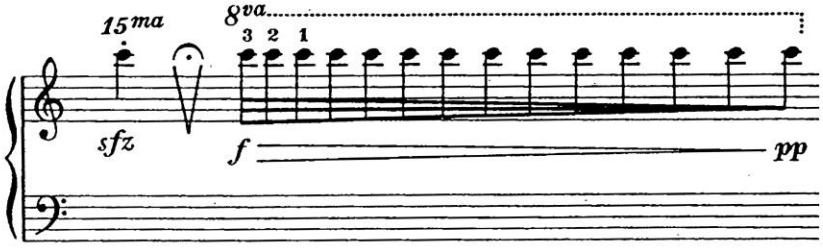
Adventures in Time and Space includes two pieces of aleatoric music within volume one.[42] The simpler of the two is Lynn Freeman Olson’s Level 3 piece “Needles and Haystacks” (Example 7.3).[43] One hand forms major and minor clusters where the exact position is undetermined. There is some direction as to where the clusters are placed, but no specific positions are recommended for the accompaniment hand. The melodic lines are notated, but the rhythm and tempo are left up to the performer, as well as repetitions. This

[42] “As You Like It” by Mary Magdalen Mageau is meant to expose students to the appearance of a contemporary score and provide only gesture suggestions, with pitches left completely up to the performer. By demanding a uniform interpretation, students are encouraged to be consistent when assigning rhythmic values. The level of this piece is difficult to determine. While the student has the freedom to interpret it as they choose, the appearance is somewhat challenging due to a mixture of several symbols being used. Actions like a glissando and trills would be new to a beginner. Although there is more freedom in this piece than the piece by Finney, there are a lot more markings to consider.

[43] Thompsons two recommended elementary aleatoric composers are Covello and Olson. (181)



Example 7.1: Covello's *The Little Avant-Garde*: Opening of "Crunch!"



Example 7.2: Excerpt from Finney's "Middle, Bottom, Top"

leaves almost all elements of the music up to the performer, creating more of an introduction to improvisation. The melodic lines contain some accidentals which result in unfamiliar hand shapes, but the accidentals are found at the student's pace which removes some of the pressure. Fingerings for the first two pitches in every position aid students in finding the appropriate positions. This piece will be harder for students who do not enjoy learning new hand shapes, or who have little experience with clusters of a specific quality.

One of the best complete collections of aleatoric music is *Alea, Music by Chance*. This collection, composed by Tom Long, is graded by Magrath as Level 2.[44] This wonderful collection is out of print and can be difficult to find. Some of the pieces are beyond the abilities of the average Level 2 player, and some could be introduced prior to Level 2

[44] The pieces in Long's collection vary in difficulty as they progress by adding more undetermined elements (*Magrath,* 423).

playing. Because it progresses in difficulty by adding more indeterminate elements, this collection could be used as an introduction to aleatoric music for several levels of students. Unique methods of notation that are used include proportional and graphic notation. The pieces are controlled to a certain extent, including up to seven instructions both for execution and creative enjoyment. The guidelines are as much for the instructor as student, as demonstrating concepts is very important for young students. The easier pieces in this collection leave only one element open to interpretation at a time, while the more complicated pieces leave more up to the performer.

Through introducing this collection to some of my students, I have found that perhaps the simplest element to leave to chance is rhythm.[45] "Duration" requires some knowledge of the traditional staff and ability to read notes. Because students are instructed to play musically, this implies that several elements beyond the rhythmic values are actually left up to them, including dynamics, touch, and phrasing. This means that this piece may have more impact on the musicality of students if they have already been exposed to various dynamics and at least the two most basic touches on the piano: staccato and legato.

"Random Density" provides students with three independent rhythms to improvise with (Example 7.5). The rhythms are to be played in three notated registers of the piano (high, middle, and low).[46] With the performer choosing pitches and number of pitches, giving them full control over the texture and amount of dissonance. Performers are instructed to play "single notes, chords, clusters or combination," as they prefer. Dynamics are written into the score so students can achieve them by touch or through their decisions about the texture.

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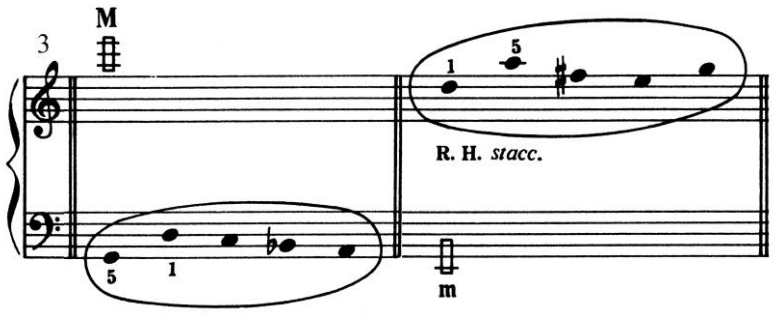
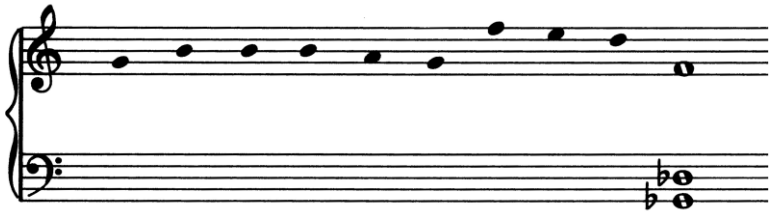
[45] Pieces in *Alea, Music by Chance* that have indeterminate rhythm, "Melogic" and "Durations" are notated differently. "Melogic" uses a chart which players can follow in the direction of their choice, but the pitch combinations are still controlled to a certain extent, because they are instructed to not change directions midline.

[46] Similarly, Long's "Circulation" provides eight rhythms presented in a geometric shape that can be progressed through in several ways. The pitches are left up to the performer.



Example 7.3: Olson's "Needles and Haystacks," mm. 3-4



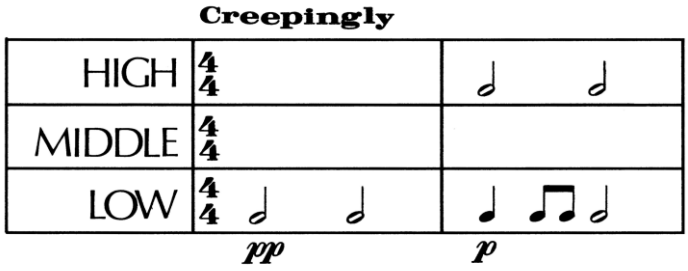
Example 7.4: "Duration" from Tom Long's *Alea*

Since this piece is meant for improvising with various textures, that would be the preferred method for altering the dynamics. This piece is easier for students who enjoy playing rhythm games and have good rhythmic coordination. It can also be an excellent game for those who need rhythm assistance because other musical elements are omitted so that the rhythm is the primary focus.

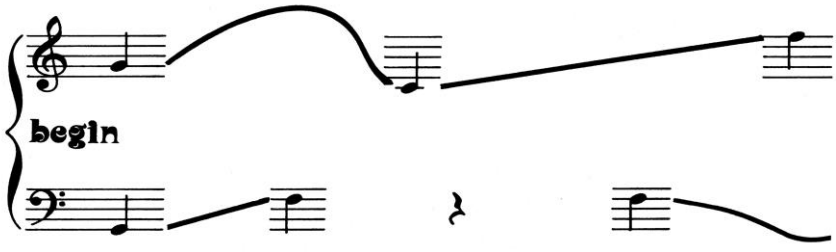
Long's "Contour" involves indeterminate pitches and rhythm at the same time. The only notated element is the contour and a few landing points for pitch (Example 7.6). No dynamics are provided, but students are instructed to play musically, as was indicated in previous pieces of the set. Long stresses that students are to follow the "general shape of the

melody," but encourages them to make it more interesting.[47] Visually, one of the difficulties is that the grand staff is not connected in the second half of each line, so students may get lost easily while improvising, even if they have knowledge of notation. This challenging aspect may help students in the long run because in order to not get lost, students gain practice keeping their eyes on the music more consistently. This is a concept that I would consider an advantage to use prior to note reading; however, the execution of this piece relies on being able to recognize pitches anywhere on the staff in order to find the landing points.

Some of the more difficult pieces in this collection are ones that leave elements up to the performer that are more physically difficult to produce. "Deceiving" requires students to produce ten audibly different volume levels determined by random for each of the ten



Example 7.5: Opening of "Random Density"



Example 7.6: Opening of "Contour"

[47] Long directs that improvisation be varied and to not attempt to follow the contour exactly. He provides an example of what the actual line may look like and desires for it to have a great deal of movement.

phrases. A more difficult aleatoric element in this collection is when the order of material is left up to chance. In Long's "Modulation," the six lines to be played in random order are different lengths.[48] The effect is a piece with several meter changes. If a beginner is learning the similarities between reading left to right in both language and music, the idea of reading materials in a random order can be confusing visually since it is contradictory of what they have been learning.

Solutions

Many of the elements are predetermined in some way by either providing landmark pitches, guidelines to follow, notated material, and specific goals for the student to achieve through choice and experimentation. This fosters student creativity and some improvisation skills, but does not expose them to the idea of being surprised by the outcome of the piece.[49] Many students who are less comfortable with improvisation and making decisions quickly will find that leaving elements completely to chance removes some of the pressure, and the resulting composition feels more like a game. In my compositions, I tried to vary the amount of control I had as the composer, as well as the type of elements I had control over. Few of the pieces discussed in this chapter left elements to real chance devices, so I have composed pieces that use coin tosses, dice, and spinning a dial.

"Mice in My Kitchen" consists of six short segments all in G major or minor five-finger position (Example 7.7). Students are to roll a six-sided di to determine which of the six segments to play next. The segments are intended to have space in between them to allow time for students to roll the di during the performance of this piece. Students who are less

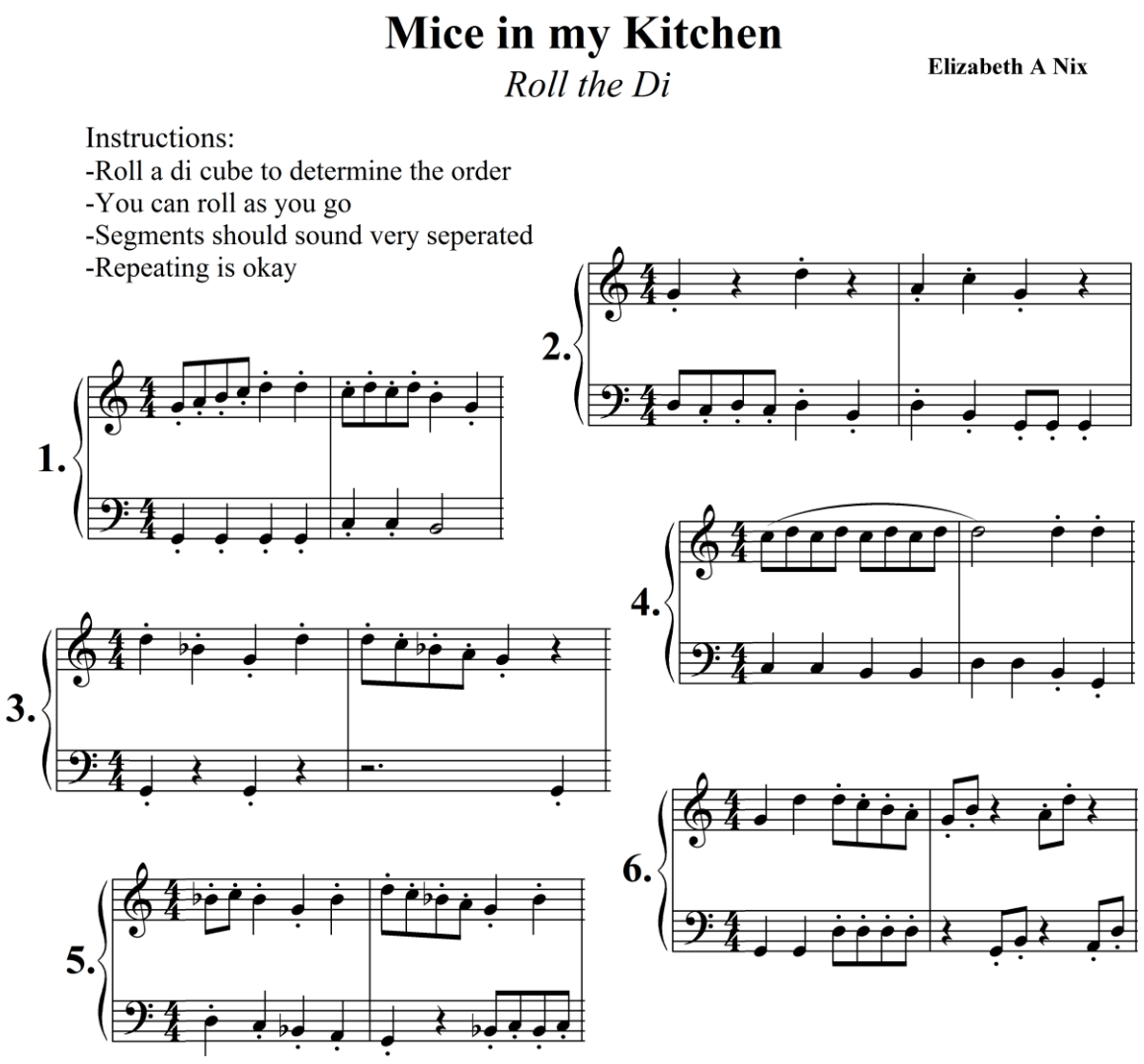
[48] Another piece using an aleatoric order of material from *Alea: Music by Chance* is "Maze" which also uses a contemporary score and provides a good first exposure to improvisation.

[49] Children value participating in unique production. (Michael, 66). Refer to this book for more information about creativity and how teaching creativity is possible. (56-58)

comfortable can roll the di before starting, or the teacher can roll the di during performance so that the students' hands do not have to leave the keyboard and lose their bearing. What I like most about this piece is that the indeterminate order of material is left to true chance, not the player.

Some young students may not be comfortable making decisions and interpreting scores during performance. "Board Games" allows them to make rhythmic decisions with their teacher in advance before the piece is played. Each shape is to be assigned a rhythmic value by the student and the shapes are large enough for the student to draw the type of rhythm inside of the shape (Example 7.8). The student can play these rhythms on any note or chord. Teachers can assess students' comfort level and recommend a position or texture. It may be beneficial to first give the student a simple choice between two notes, so they are making a small decision on their own. As they become more confident, they can be encouraged to play anything within a position, or anywhere on the keyboard. Shapes are more familiar to the very young than notation, so making decisions about the texture or direction of a line may be easier for the young if differently sized shapes are used.

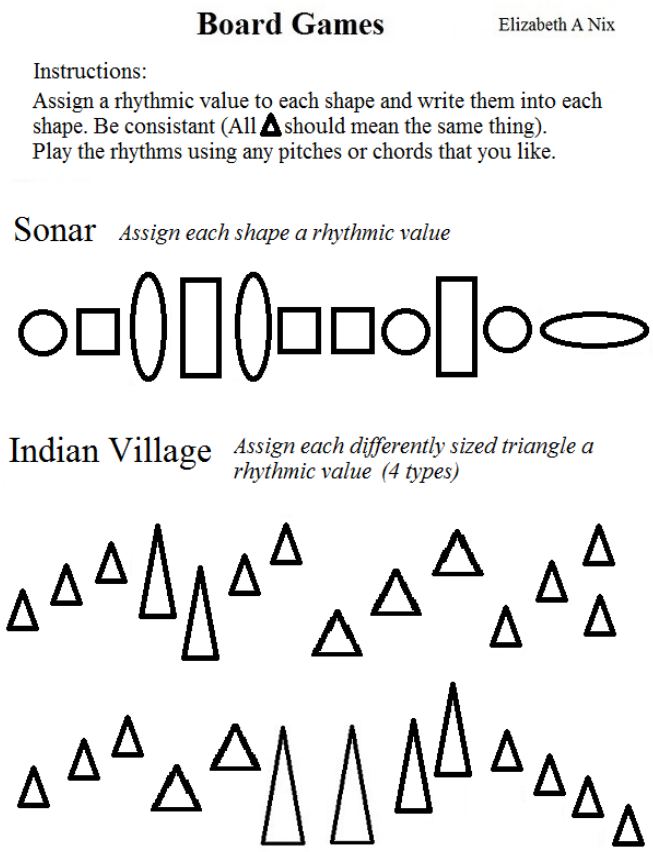
The concept of contour in music can be a useful skill for students and can help with their sight reading and help them phrasing. "Riding Bikes on a Long Road" is a piece where the contour is left to the performer's interpretation, but the touch can be interpreted as much as the shape of the line (Example 7.9). For example, a jagged line may be disjunct, a smooth curved line may be a scale or glissando, and a straight line may be a direct move or scale. The landing pitches are ones that beginners are familiar with, notes of C position in various octaves. The left hand remains in C position. This piece can be played by a Level 1 student



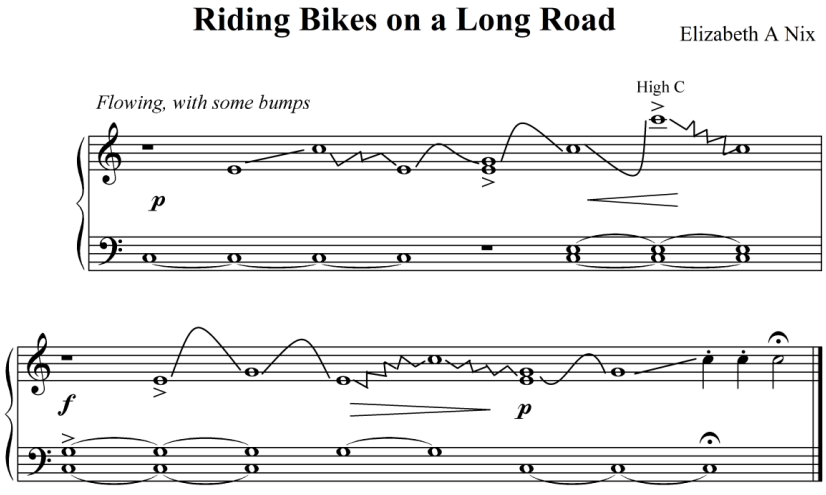
Example 7.7: “Mice in My Kitchen,” Level 1

who has started note-reading. This also provides a first look into improvisation as their interpretation has some guidelines with landmark pitches.

Another easy way to relieve some of the pressure from students while giving them a more complete aleatoric experience is a duet. If the teacher’s part has some aleatoric elements as well, then students experience a lack of control during performance, but are not responsible

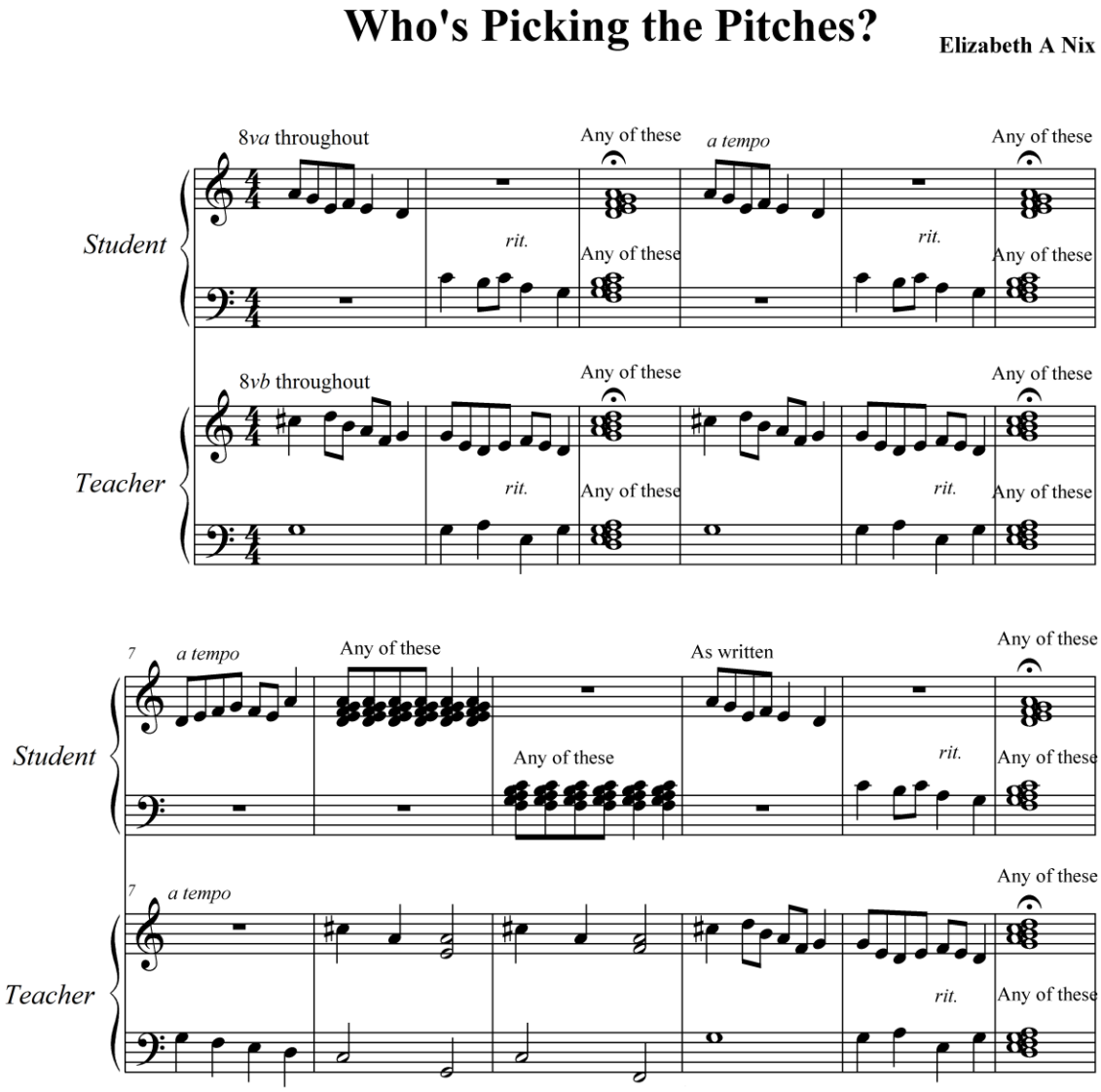


Example 7.8: "Board Games," Level 1

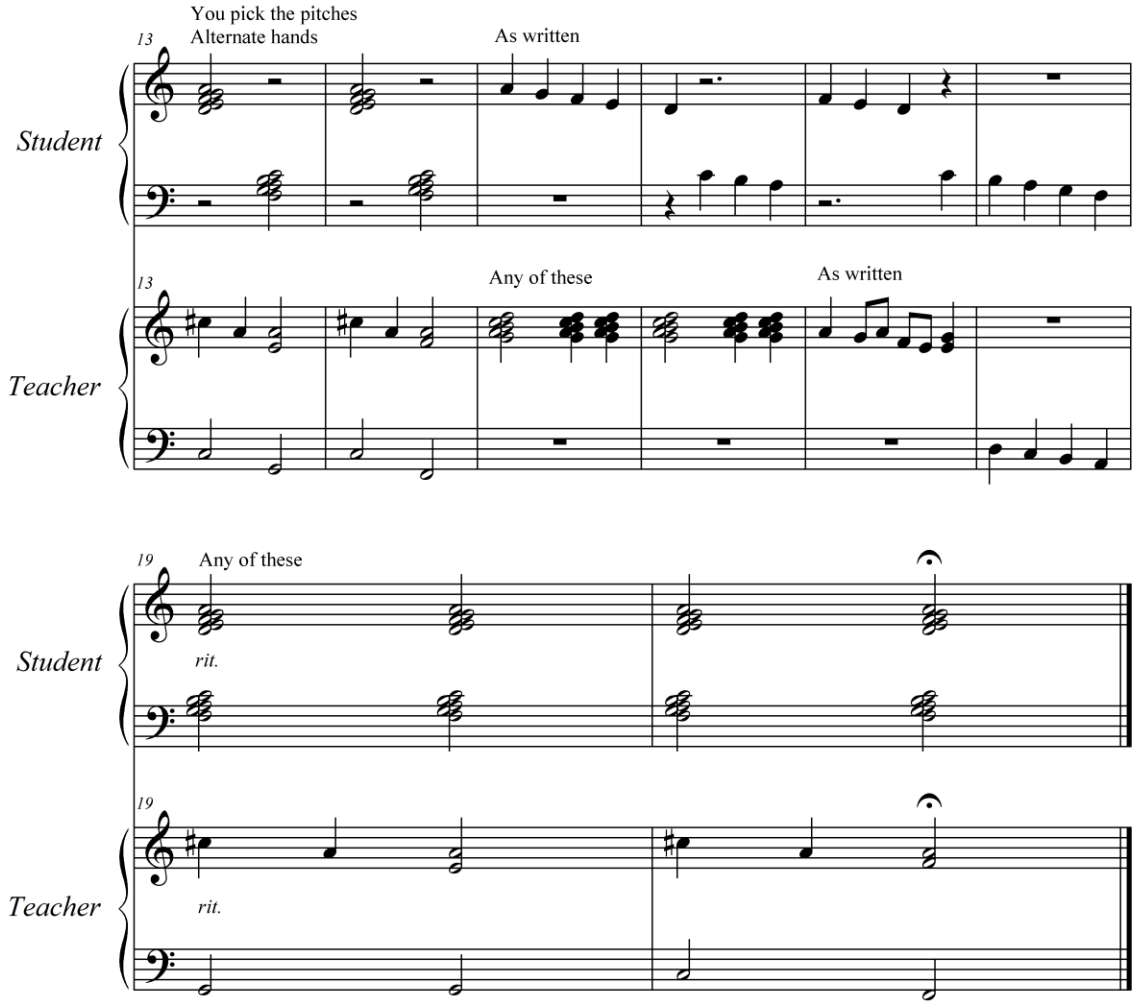


Example 7.9: "Riding Bikes on a Long Road," Level 1

for the full production of elements. For the duet “Who’s Picking the Pitches,” the student remains in a stationary position that suggests G Mixolydian. The rhythms are easy and suggested throughout. There are times when both parts have exact passages to play and some that require improvisation from either player. The pitches and texture are left up the performers in these instances, but the rhythms and which hand should play them are notated in the score. There are several fermatas in the opening where both players play any of the pitches from the position they are in. This creates a certain amount of control, but leaves the resulting sound up to both performers equally. Slowing down before the fermatas creates a greater sense of ensemble and aids musicality. The mystery of not knowing what the other player is going to play can make it a lot more fun without adding pressure for the student alone. By always using the same rhythms that are notated, the duet contains an element that is consistent even when the notes are being chosen on the spot.



Example 7.10: “Who’s Picking the Pitches,” Level 1 duet



Example 7.10: continued

"Coin Flip: How should I play this?" is a Level 2 piece that requires students to flip a coin five times to determine five important elements of the composition that have been left to chance: dynamics, specific touch, pedaling, dynamic changes, and which ending to play (Example 7.11). Complete instructions are provided at the beginning of the piece. This piece promotes thorough preparation because students must prepare several versions of the piece. Since students are practicing the piece in numerous ways using varied dynamics and different

articulations, new practicing techniques are developed and reinforced that can be applied to the literature of other genres.

"A Fun Vacation" involves flipping a coin to determine which passage to play next (Example 7.12). There are four possible routes from start to finish, so there are not many options that could make it overwhelming or difficult to practice. The student or teacher is to flip the coin to determine the next passage during the piece as the student is playing a fermata and holding down the pedal. This is a good introduction to some performance pressure without there being too many indeterminate variables. The piece can be repeated as many times as the student likes or until all four possibilities have been played through.

One more fun way for students to determine particular elements is the use of an aleatoric music chart. In the piece "Bell Choir," students spin to determine the position their left hand will be improvising the accompaniment, and also which ending to play (Example 7.13a and b). Although there are several chance elements, including what notes they can improvise with, it feels like a game. There also is not wrong answer with their accompaniment, so there is less pressure. They are instructed to play only dotted half notes with their left hand, so this restriction also lessons the pressure and gives them more time to think. There are several options for the left hand positioning, some of which will cause more dissonance than others. Some options involve the student picking the position themselves. My goal with this piece was to vary the amount of control the student has each time they play the piece. The endings are a little more concrete than the material from the beginning, with one ending in a major key and one ending in a minor key. Students may start to get familiar with these two endings and the tonal resolutions of them may affect their improvisation.

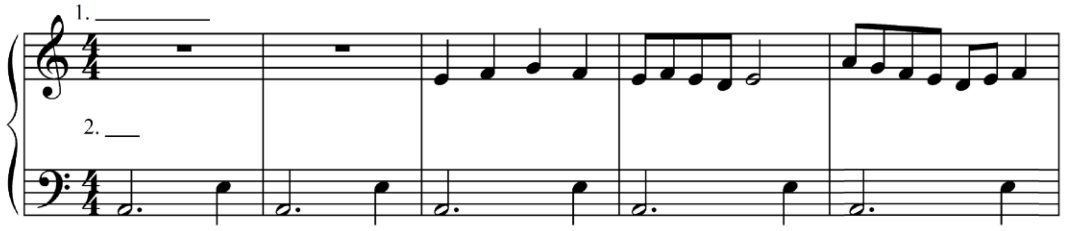
Coin Flip- How should I play this?

Elizabeth A. Nix

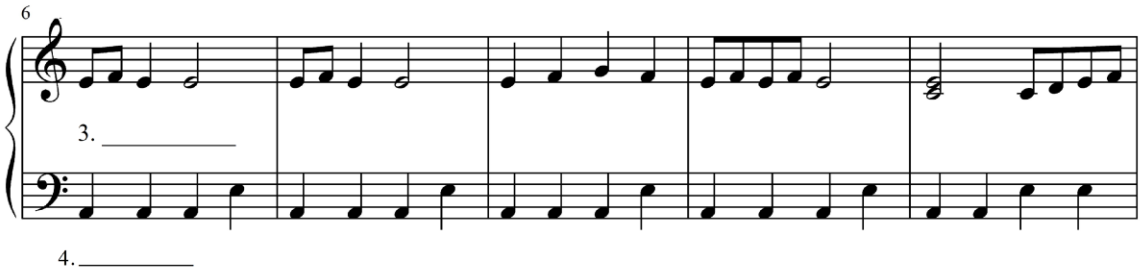
Instructions:

-Flip a coin for each of the 5 numbered points.
-Use the dynamic, style, and ending chosen by chance.
-Mark each answer with a pencil so it can be erased for future performances.

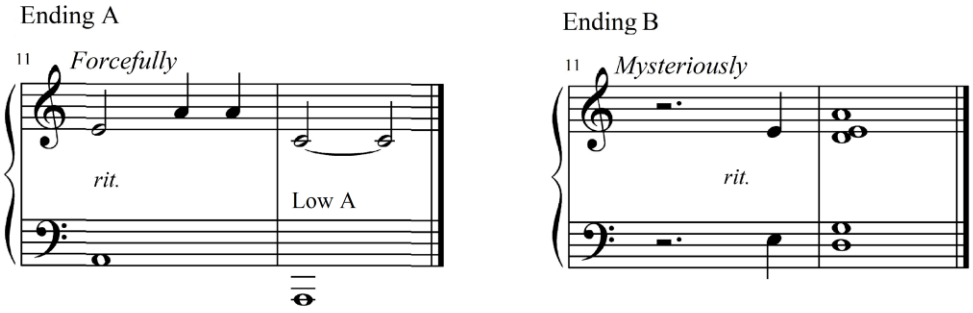
1. Opening measures- Heads: *Legato* Tails: *Staccato*
2. Opening dynamic- Heads: Softly - *p* Tails: Loudly - *f*



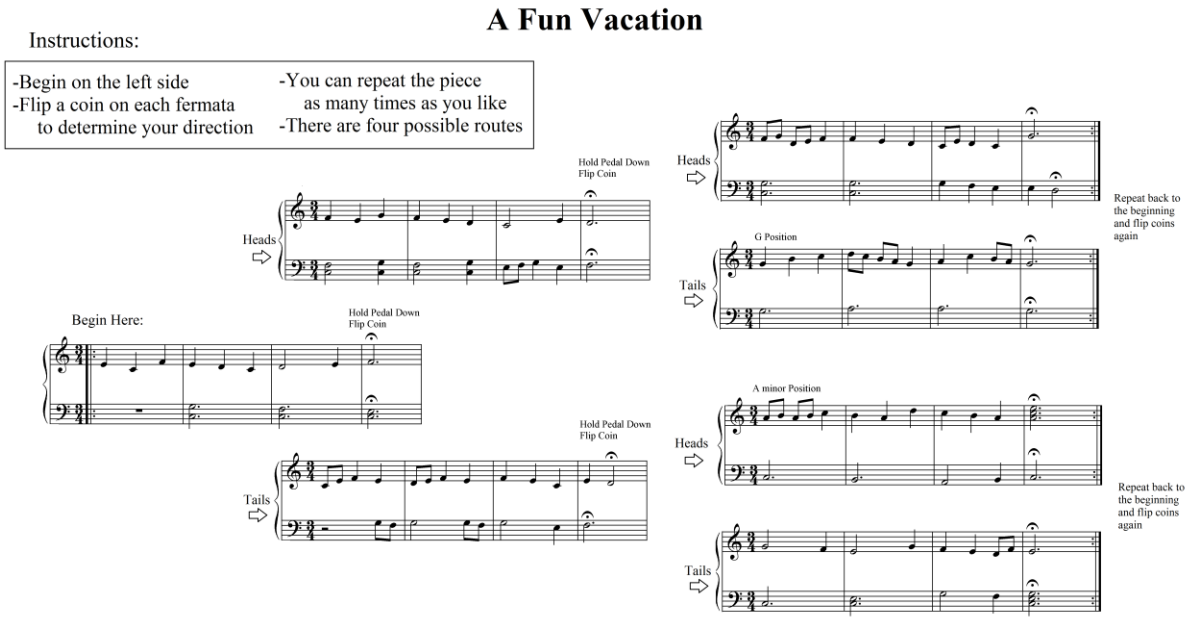
3. Measures 6-10- Heads: *Crescendo* Tails: *Diminuendo*
4. Measures 6-10- Heads: No pedal Tails: Hold down the pedal



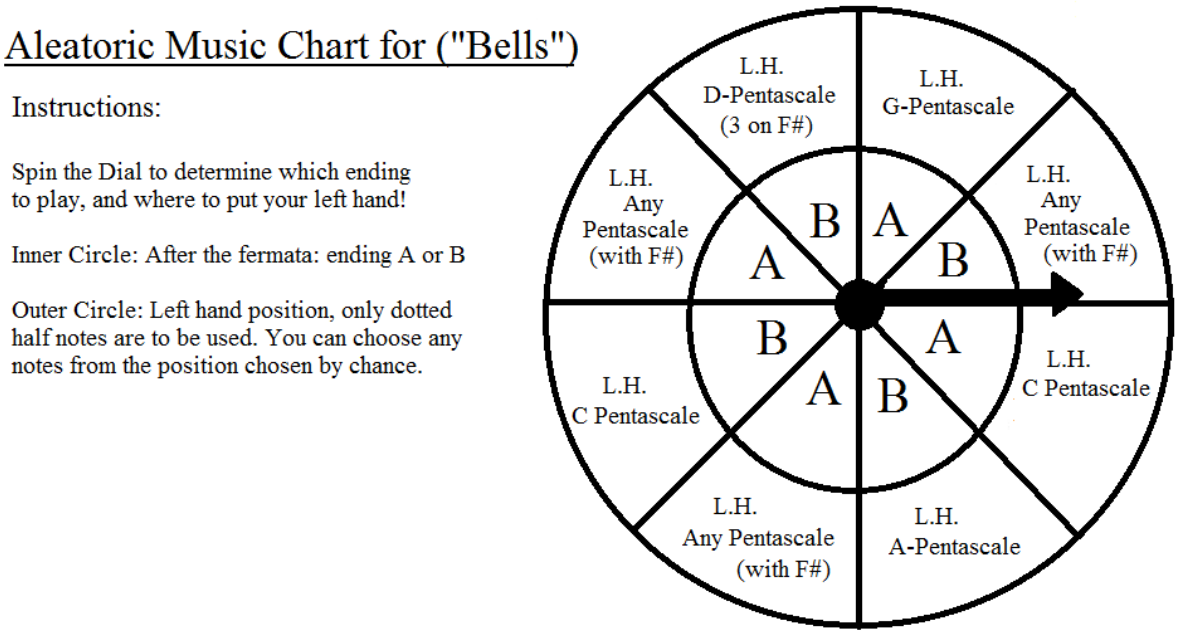
5. Flip to determine which ending to play and circle it - Heads: Ending A Tails: Ending B



Example 7.11: “Coin-Flip: How should I play this?” Level 2



Example 7.12: "A Fun Vacation," Level 2



Example 7.13: Aleatoric Music Chart and "Bell Choir," Level 2

Bell Choir

for Aleatoric Music chart

Elizabeth A Nix

Instructions:

Spin the needle on the Aleatoric Music Chart to determine which scale to use in the left hand.

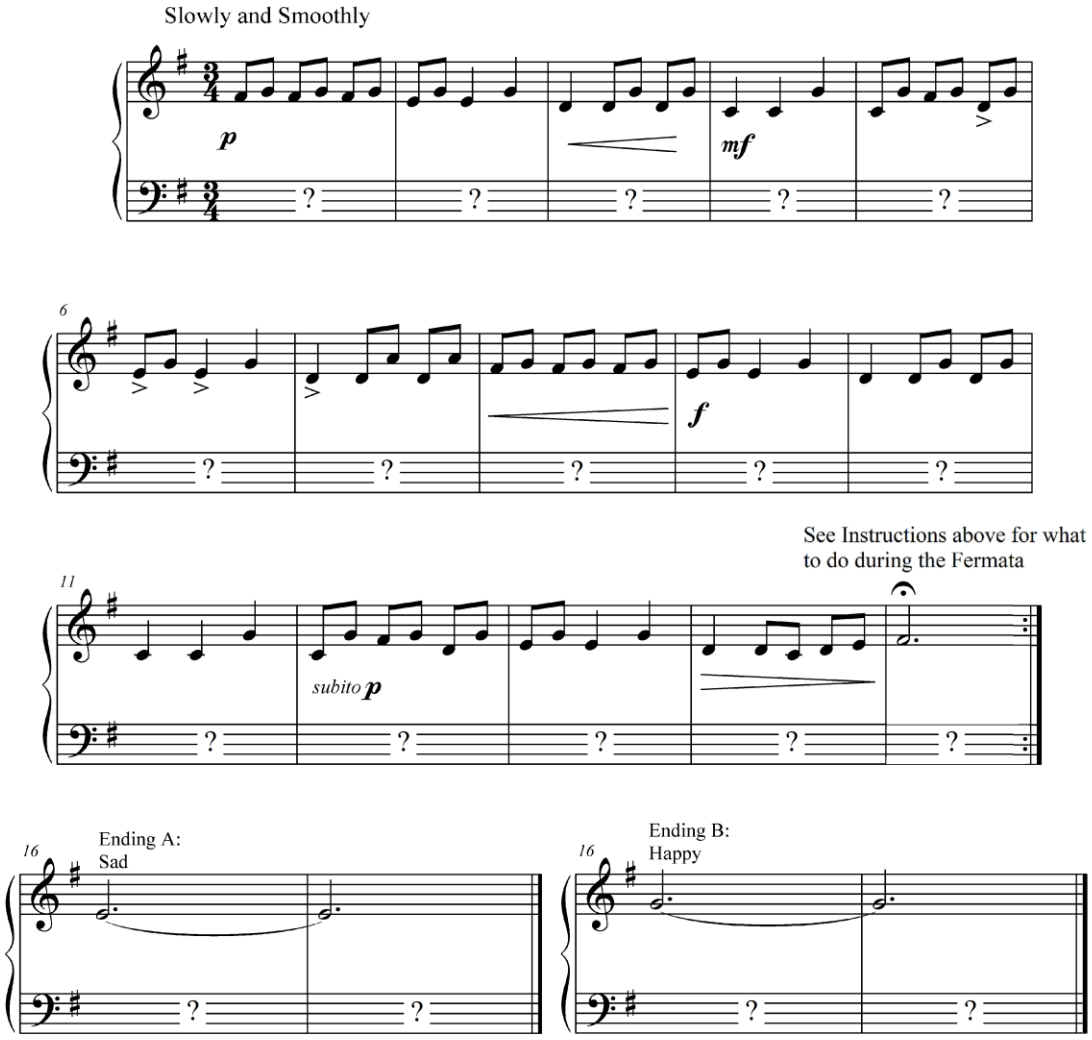
The left hand should play ONLY dotted half notes with no skips! You can start on any note, can move up or down, but you must NOT skip any notes!

Intructions during Fermata:

This piece can be repeated as many times as you like.

If you are repeating, during the fermata, spin for which position to use next.

When you are finished, during the fermata, spin for which ending to use.



Example 7.13: Continued

Chapter 8: Experiments with Sound

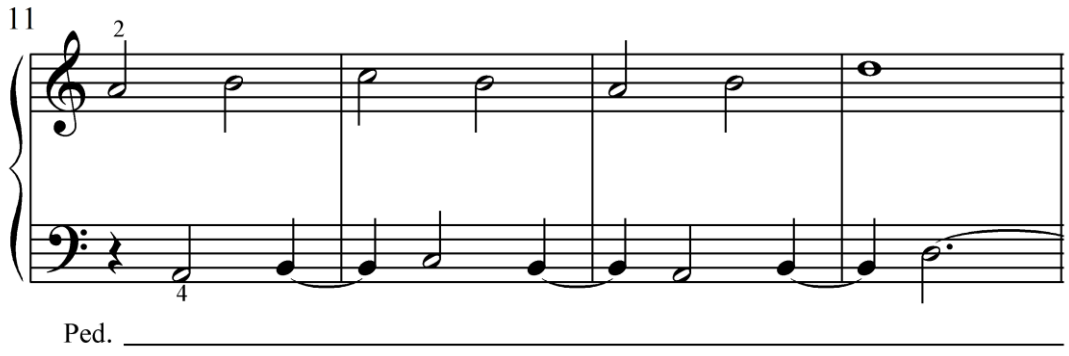
In the Twentieth Century, many new methods of sound production on the piano were explored that do not involve the traditional action of finger to key and hammer to string. Experimenting with new ways to make strings vibrate, for instance overtones or using the pedal as a mechanism for new effects, became a compositional approach for influential composers such as Henry Cowell and Alan Hovhaness.[50] Extended techniques produce some of the most interesting sounds of the Twentieth Century, and are almost non-existent in early literature.

Pedal Effects and Overtones

The introduction of the pedal to students is usually a fun and exciting time. The pedal does require additional coordination; however, most method books use it sparingly and slowly at first. In traditional training, as students begin to improve the coordination between foot and music, the focus is primarily on clearing the pedal as the chords progress to avoid dissonance. Asking a student to simply hold the pedal down in order to purposely create dissonance is simple physically compared to "active pedaling," but the effect may take some getting used to. If dissonance is the purpose of a passage, the thought process is completely opposite of what the student has been working to coordinate.

Pieces like "Echo-Chamber" by Starer can help students think of pedaling differently (Example 8.1). The intent of this piece is for students to hold down the pedal for each line in its entirety. A different pentascale is used for each line, so there are resonating seconds. This Level 1 piece contains pedal markings which result in up to five step-wise pitches to be

[50] These composers have written advanced pieces featuring these extended techniques and are recommended by Thompson as good introductory pieces. The advanced nature of these pieces makes them good only for older, more experienced pianists. (183)

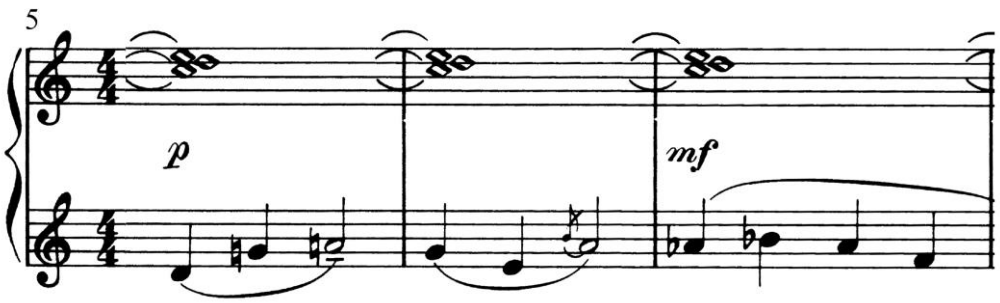


Example 8.1: Starer's "Echo-Chamber," mm. 11-14

ringing simultaneously. The left hand is in canon with the right hand throughout the piece which adds to the ease, as does the simplicity of the pedal both visually and physically. This piece makes for a great introduction to dissonance and how the role of the pedal has changed in post-tonal literature.

The most popular type of overtones in piano literature involves silently depressing several keys so that their strings can vibrate when a lower, fundamental note is played. This extended technique is simple for the young to execute if the shape of the depressed notes is easy and the fundamental notes are familiar to students. Not all pieces featuring overtones result in dissonance. In fact, because the overtones will sound much more softly than the fundamental notes, potential dissonances are easier to adjust to.

"I Hear an Echo" by Mary Magdalen Mageau is also Level 1 but contains more accidentals than the Starer (Example 8.2). Students can easily focus on the slow whole-tone and pentatonic scales in the left hand because the right hand is stationary and depressed in C position. The tune in the left hand is interesting, and the dissonance is never direct because the overtones are quiet. Because the left hand in "I Hear the Echo" involves several pitches, students may not notice differences in resonance without a teacher pointing them out. The



Example 8.2: Mageau's "I Hear the Echo," mm. 5-7

pairing of "Echo Chamber" and "I Hear the Echo" makes for a great introduction to both types of overtone production on the piano.

Solutions

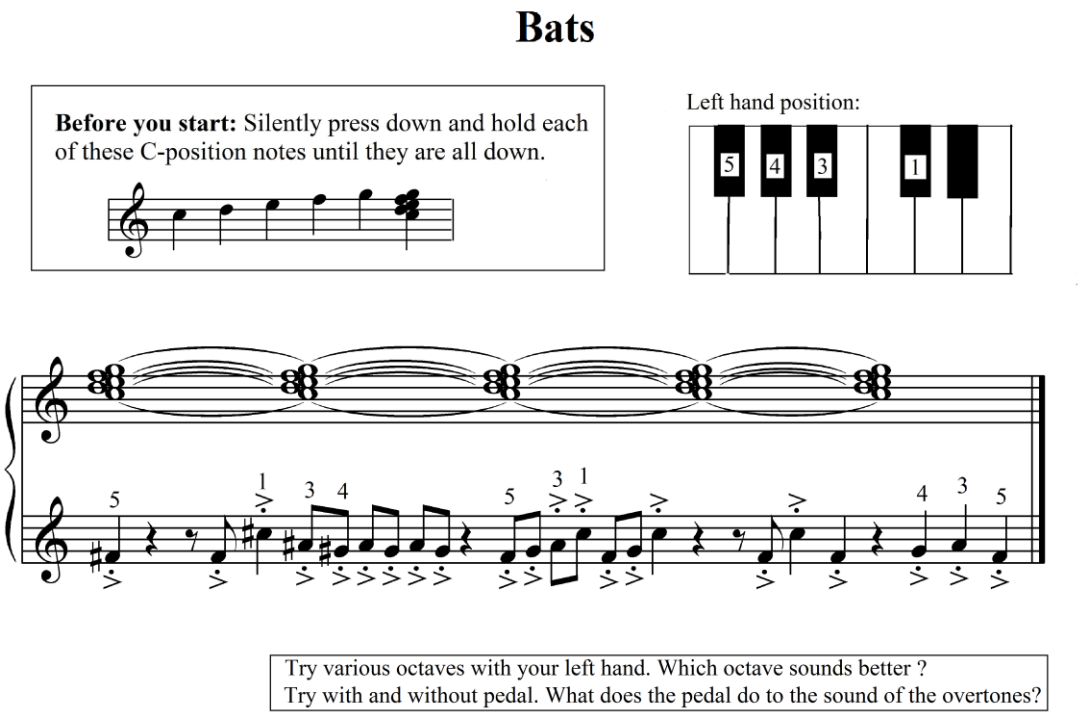
For both of my compositions that provide exposure to overtones, a familiar pentascale is silently depressed. No pedal is to be used on these pieces so that there are no distractions. Existing literature contains little to no explanation of how overtones work. My goal was for students to try playing these pieces several ways so that they can observe differences in the sound on their own and hopefully come to the following conclusions: fundamental notes must be below the overtones to make them resonate, louder fundamental notes will also result in louder overtones, depressing keys enables the strings to resonate even without pedaling, and silently depressed notes resonate better if the fundamental notes are from the same pitch class.

"Bats" is a Level 1 exercise to introduce beginners to overtones as soon as they can play a C pentascale and have experience playing on the black keys (Example 8.3a). The position and fingering is provided in case the student does not understand sharps yet. Although a rhythm is specified, there is no meter or tempo suggestion, so students can play this piece at

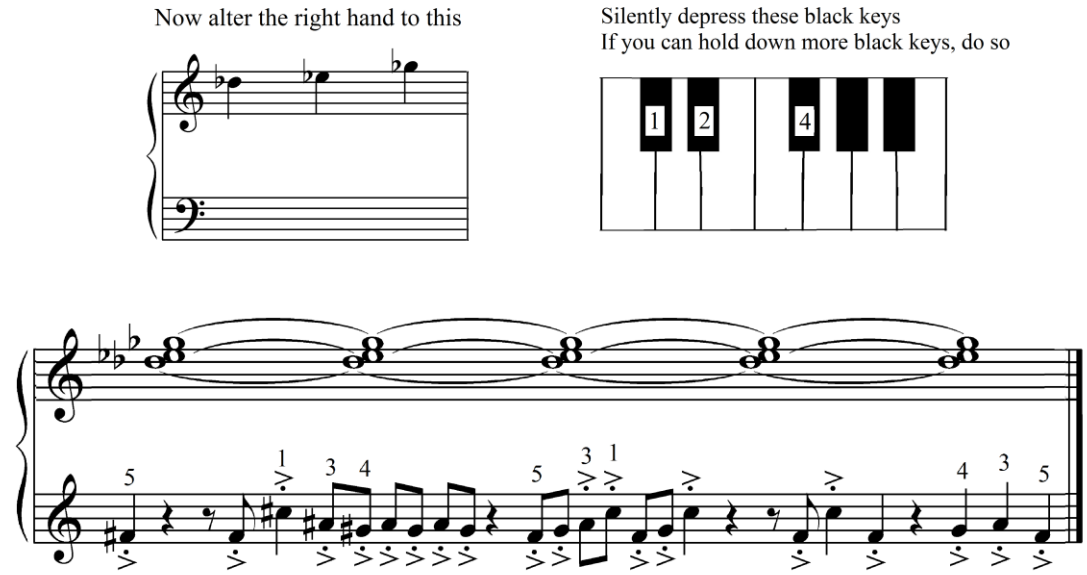
any speed they like and should consider the rhythm free. The student should then try the piece with three black keys silently depressed to note the differences in resonance (Example 8.3b). Obtaining a greater understanding of what their instrument is capable of may increase their interest dramatically. The student is advised to try the piece with the left hand an octave lower so they can note the changes in resonating pitches, the result being a greater awareness of how the vibration of strings affects the sound.

"In Between" is a Level 1 piece that is easy to execute as the student only plays white keys (Example 8.4a and b). The right hand silently depresses a G major pentascale which is a familiar position for most beginners. None of the pieces using overtones in early literature focus on teaching students how various registers will affect the resonance of overtones. This piece requires the left hand to move above the depressed notes, which will not cause the overtones to ring. This can be an important lesson for students to learn that there are no "undertones." The left hand has to move to three familiar positions: two below the right hand (C and G) and one above (F). The rhythms and fingerings in the left hand are repetitive and fermatas are given so the overtones can ring and the student can listen to the differences. This piece also has two dynamic options so that students can further come to their own conclusions about how overtones resonate. The goal of this piece is to allow beginners to hear differences in the overtone frequencies depending on the register and volume of the fundamental notes.

a: Black fundamental notes with white depressed keys

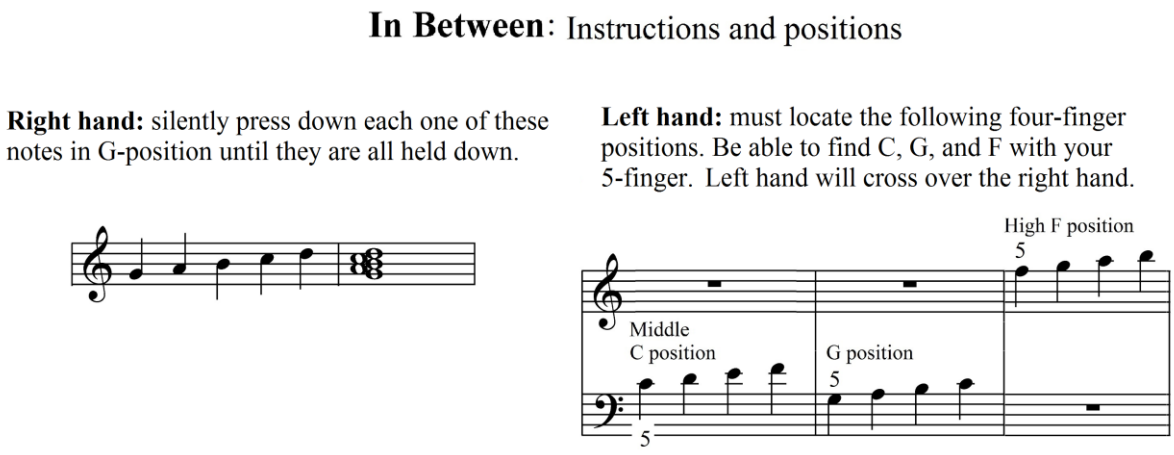


b: Black fundamental and depressed keys

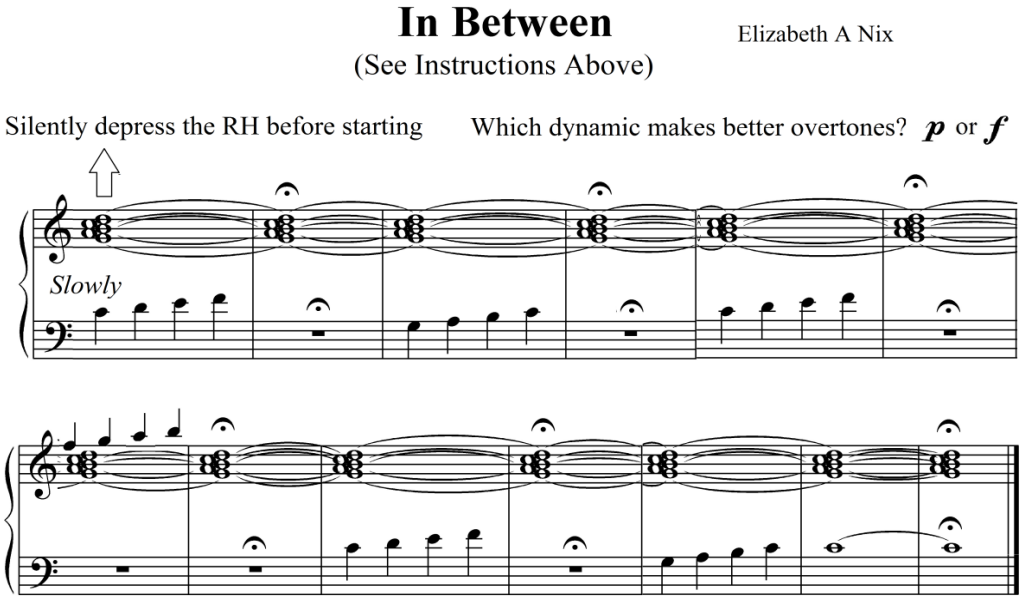


Example 8.3: “Bats,” Level 1

a: Instructions for “In Between”



b: Discovering differences that affect resonance



Example 8.4: “In Between,” Level 1

Plucking and Strumming Strings

It is no surprise that extended techniques inside the piano are not common in lessons for beginners. The literature which requires such tasks is limited because of this lack of demand.[51] The safety of the instrument must of course be a top priority when touching strings if the student is not mature enough to be gentile. Plucking and strumming strings can be practiced more easily than prepared piano because it can be executed on an upright piano if an adult removes the front panel. Some more expensive keyboards can produce a large variety of sounds, but this will not provide the same type of exposure to students. One of the simplest preparations for plucking strings is by B.J. Rosco in "Ocean Whispers," in which he requires the player to clearly mark the three strings with tape. The notes to be marked are simple to find and the rhythms to be plucked are not difficult. Although the musical content itself that occurs in between plucked notes is too complex for beginners, this method of using tape is a great idea.[52]

Solutions

The student needs to be able to find strings quickly, so shorter students would require enough time to stand up, if they can even reach the inside of the instrument at all. A solution to this issue of height may be for the student to remain standing, and not have to move back and forth between strings and using the keyboard. "Plucking and Clucking" requires only plucked notes (Example 8.5). The piece can be practiced on the keyboard to become comfortable with the number of repetitions on each pitch prior to plucking the strings inside the piano. If opaque tape can be found, writing the name of the pitch may be a possibility.

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[51] One of the most popular pieces used to introduce older students to string plucking and striking is "The Banshee" by Henry Cowell which is Level 10.

[52] B.J. Rosco's "Ocean Whispers" from *Gallery of Sound Patterns,* is not rated by Magrath. I would consider it Level 5.

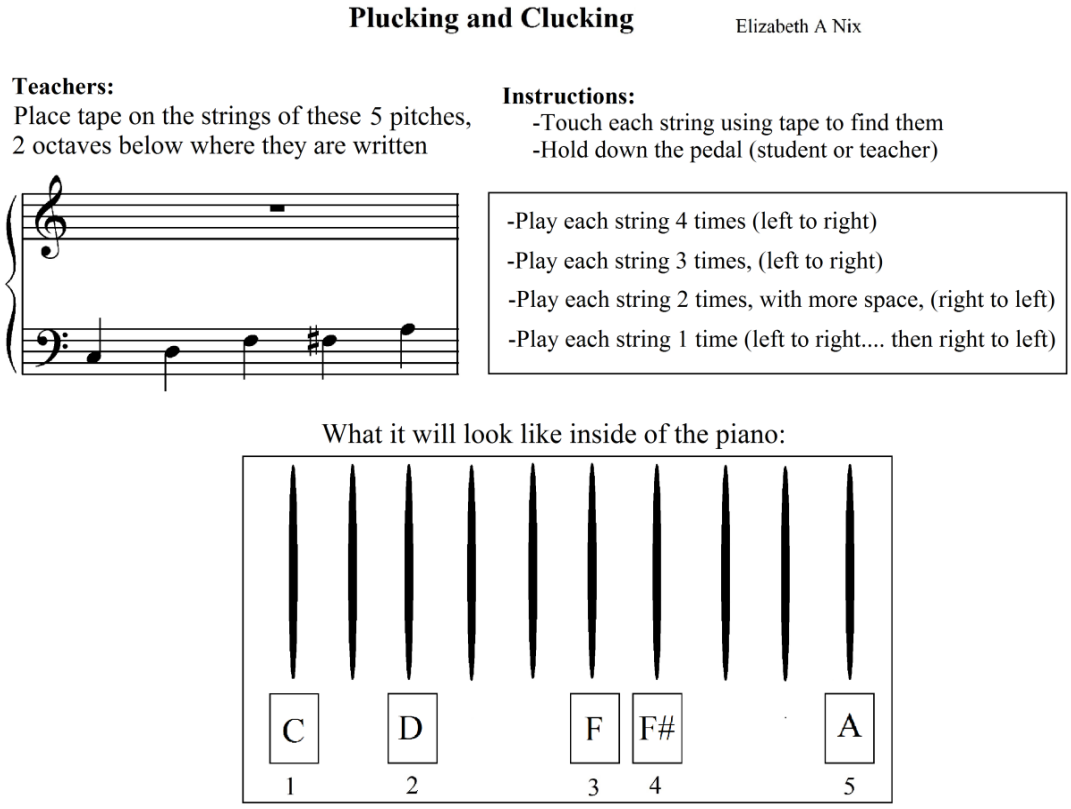
Thicker tapes can leave behind a residue that scotch tape does not. The description provided with the piece instructs students to use their thumb and pointer finger to lightly touch the strings, preferably with nails. Students are not to "pinch" or grab anything, but should think of it as barely scratching the strings if they have nails. This action should first be demonstrated by the teacher, and then performed by the students on the teacher's hand to ensure that they are using a delicate touch before letting them pluck strings.

The range of this piece which students must work with is not large and is in a familiar octave. . The lower register of the piano has more space between strings, and the strings are also larger and easier to work with. Because reading sheet music from this position would be difficult and few beginners have experience memorizing pieces, this exercise is in the form of instructions giving the direction and exact number of times to pluck each string.

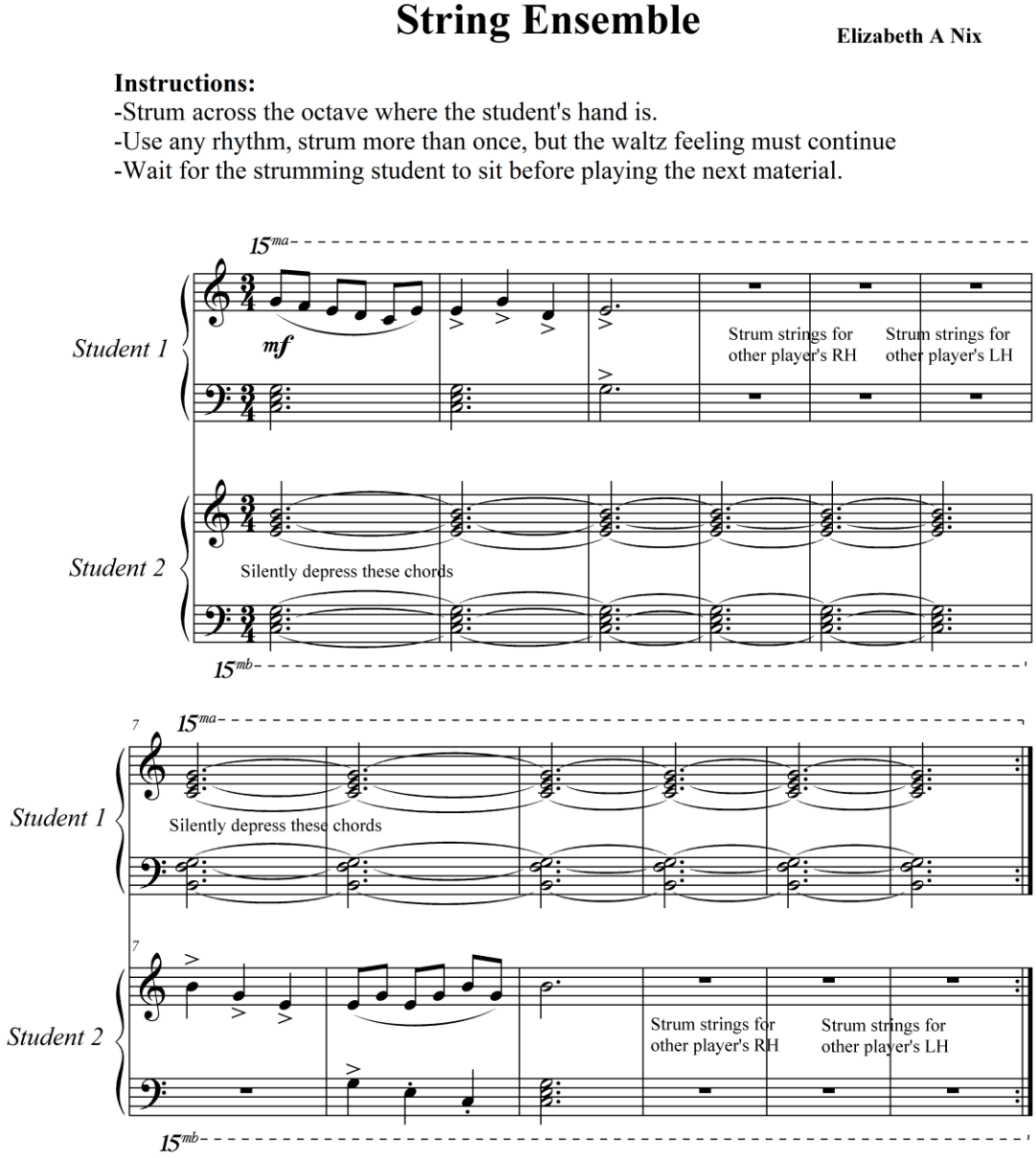
"String Ensemble" is a Level 1 duet for two students (Example 8.6). Each student has some material to play on the keys, and some strumming to do inside the piano as the other silently depresses two chords. The chord qualities to be depressed in each player's part are different which adds to the variety. The strumming part can be improvised as long as the piece maintains its waltz character. This is an easy piece to use as a supplement for students who are excelling at rhythm, or who need extra practice with keeping a steady beat. Two students with different rhythmic abilities could be paired together for a more unique collaboration.

If it is performed on a grand piano, students will have to stand up and sit down several times which may require memorization. Because the written material is limited to two measures per student, memorization is not too difficult. This piece may be more beneficial if played on an upright piano because students can easily see the mechanism more clearly,

helping them to form a more complete impression of the technique. This advanced interaction with of the instrument is made possible by keeping all other elements simple and appropriate for young players.



Example 8.5: “Plucking and Clucking,” Level 1 exercise



Example 8.6: “String Ensemble,” Level 1 duet for two students

Prepared Piano

Preparing a piano involves placing objects and materials on top of, between, or wrapped around the strings inside the piano to transform the sound of the instrument. One of the biggest deterrents against introducing this concept to beginners is a concern for the safety of

the instrument.[53] The objects used in preparation process affect timbre, response, resonance, and the actual pitch of the strings. Most prepared piano pieces use a variety of materials which have to be placed interchangeably across the piano. If pitches are altered differently due to the use of a variety of objects, melodic lines may not move in a scalar way. This alteration of pitch order, coupled with the focus being highly percussive, can cause a great deal of difficulty for students.

One of the most difficult factors in many prepared piano works is the complexity of the rhythm. John Cage's "A Valentine Out of Season" is a Level 2 piece for prepared piano, but this piece is more difficult than it appears. This piece was not intended for younger Level 2 players, but to be set to dance.[54] The preparation of this three-movement piece, which is much longer than most pieces beginners have experienced, involves some labor intensive and complex preparation. The strings have to be prepared in two places each, and with seven different kinds of objects. The materials required for this piece are unusual and therefore difficult to find. Materials include rubber, weather stripping, slit bamboo, small and large bolts, pennies, and wood. Cage includes specific measurements for the placement of objects such as 5 and 7/8 inches.

Although each hand is responsible for a limited number of notes, the accidentals cause unusual hand positions for beginners. At first glance, it appears sparse and simple. But this sparse-looking writing requires counting many rests and to enter at different points in a measure (Example 8.7a). Magrath probably identified it for its ease as it repeats many motions though out the piece. The differences in rhythm are small, but this highly percussive

[53] Richard Bunger's *The Well-Prepared Piano* discusses the many concerns for the piano itself when it is being prepared. This includes strings being displaced too far horizontally, objects falling below strings and scratching the soundboard, and objects hindering the action of hammers.

[54] Cage first composed for prepared piano in a dance studio, intending to sound like a percussion ensemble.

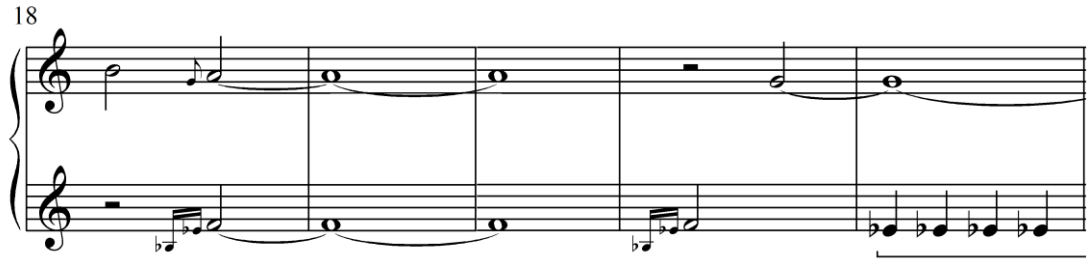
writing style may cause frustration for some students. Because this piece was intended to sound like a percussion ensemble, it lacks the clear melodic line that beginners are used to and may be less accessible. Although the rhythmic material is similar each time it appears, slight alterations in the passages and amount of space between them (rests) would be difficult for beginners to differentiate between (Example 8.7b). The final movement in particular does not look challenging; however, the subdivision of eighth notes shifts several times. Beginners who struggle with counting and rhythm changes would find this piece very difficult (Example 8.7c). For students who are good at counting and have a natural ability for rhythm, this piece may be a great fit, especially the third movement.

Solutions

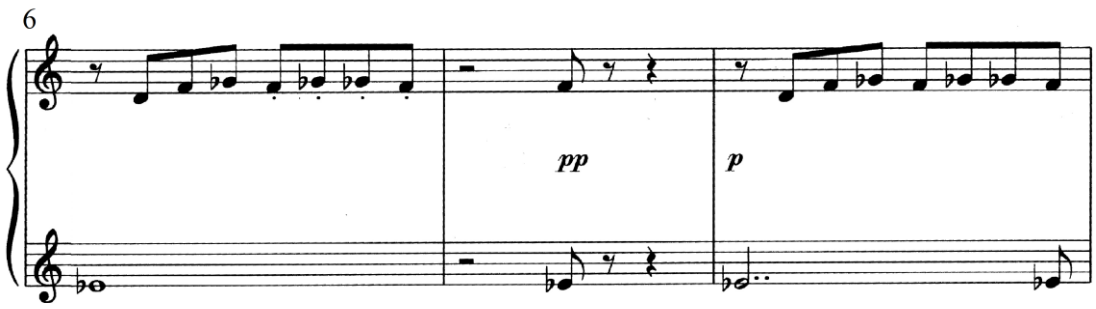
If precautions are taken, introducing students to prepared piano might have several positive effects: it can spark creativity, expose them to new literature, improve their rhythm and counting, and ultimately help them to better understand the mechanism of the instrument they are learning to play. It is important for them to observe and be involved with the preparation process because it will help students understand the concept. This means that only safe and supervised preparation techniques should be practiced. Several of the preparation techniques for the piece by Cage would not be a good idea to do with beginners, even though it is Level 2. This means that if a student could play the piece in content, he or she probably would have little to do with the preparation process.[55]

[55] The proper way to insert bolts, according to Bunger, is to use a screwdriver to gently separate the strings so that insertion is made easier. Although this is the proper way to prepare strings with bolts, screwdrivers are long enough to reach the soundboard and could damage the piano, so students should have little involvement.

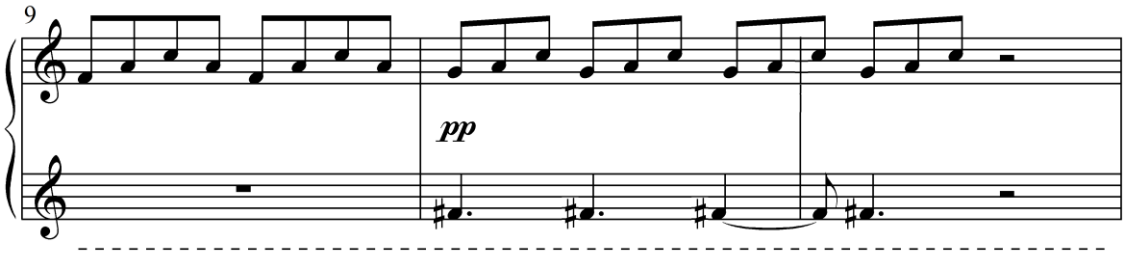
a: Movement I, mm. 18-22



b: Movement II, mm. 6-8



c: Movement III, mm. 9-11



Example 8.7: Cage's "A Valentine Out of Season"

The note choices in the Cage are unnecessarily difficult as the pitches are altered through the preparation process and would not sound in a scalar order. The biggest problem with the materials Cage chose is that they would all be foreign objects to a child, making them less accessible. For my pieces, I used objects that children would be familiar and comfortable

with. Complex rhythms are unnecessary because the "sound" of each pitch will be more percussive than its normal tone. My goal was to compose prepared piano pieces that are still driven by percussive sounds, but without rhythmic complexity. "Daydreaming Blacksmith," "Skipping through a Construction Site," and "The Factory," are all Level 1 pieces and are all in C position in various octaves. These pieces do not require differences in preparation of registers, so they could easily be played as an easy set.

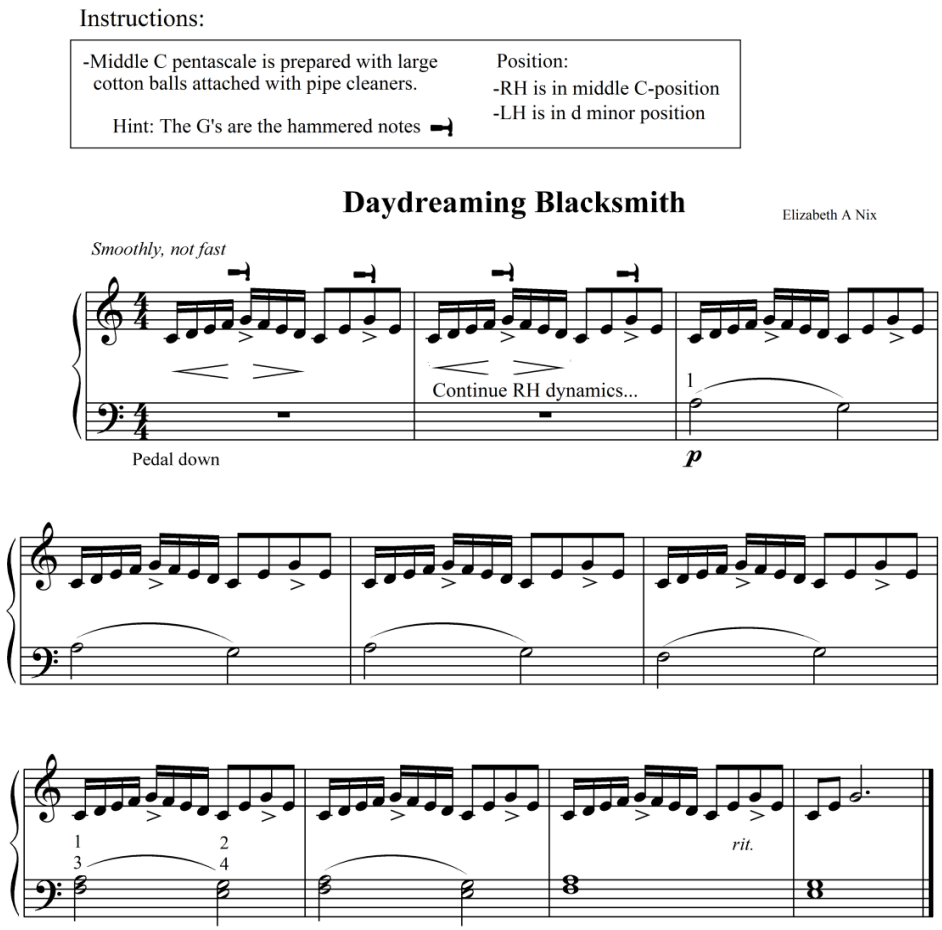
In my compositions, the preparation process itself has been altered considering age appropriateness so that the odds of damages the piano are greatly diminished. All materials used in these pieces are cheap, soft, and easy to find around the house. They include a spoon (to be placed upon the strings), two-inch erasers, clothes pins, cotton balls, and pipe cleaners. The only objects that are to go between strings are pipe cleaners. Insertion and removal of them should be a "weaving" touch with hands on both sides of the pipe cleaner, never pulling. The larger materials are placed upon the strings and held in place with the pipe cleaners. Almost all of these materials require only one pipe cleaner; however, the clothespins move easily during the pieces due to the vibration of the strings, so two pipe cleaners should be used to hold them in place. Connecting the materials this way also makes it less likely that an object with fall beneath the strings and no strings need to be moved out of place. The only objects thin enough to fall between the strings are soft.

Teaching about the differences in timbre from each material is made easier due to each pentascale having its own type of material. Using different material for each pentascale enables students to understand how various materials affect the sound more easily than if the materials were mixed across the piano in a varied order. One of the biggest difficulties for students is assisting in the preparation with the pipe cleaners is that if they are short, their

preparations will be closer to the hammers. It is very important that objects remain far away from moving parts, preferably in the middle of the strings. Teachers should make sure the student is tall enough to avoid the hammers and all moving parts. One of the benefits of attaching the objects with pipe cleaners is they are easy to adjust along the strings without damaging them. With normal preparation, sliding objects along the strings is not recommended.

"Daydreaming Blacksmith" requires holding the pedal down throughout (Example 8.8). This piece uses two familiar five-finger positions. The melody is in the left hand playing whole notes on unprepared strings. The right hand pentascale is prepared with cotton balls that cause muted resonance when the pedal is depressed. The G's in the right hand are accented throughout and are meant to sound like a blacksmith's hammer. The left hand is in D minor position using only strong fingers and simple rhythms. Fingering suggestions are provided. This piece can be introduced as a supplement to early method books as soon as a student can play with dynamics, such as crescendos, diminuendos, and accents.

"Skipping through a Construction Site" is a Level 1 piece that uses a combination of prepared and unprepared notes, therefore the melodic material in the right hand melody is easier to hear and more accessible (Example 8.9). This piece is in 6/8, which is commonly associated with skipping in children's songs, and may appear unusual to students because both hands are in bass clef; however, they are both in C position. Because students will be able to see the prepared areas as they are playing, there will be less confusion about the low range. The left hand is prepared with clothespins, with the metal touching the strings so it creates a buzzing sound that emulates the noises of construction. The left hand is repetitive and can be played as soon as students have mastered skipping within a five-finger position.



Example 8.8: “Daydreaming Blacksmith,” Level 1

“The Factory” uses the lowest C that is prepared with a spoon (Example 8.10). This timbre is the most intense sound of all materials in these pieces. The spoon should be large enough that it cannot fit between the strings and lightly tied to the strings at its smallest point so it remains on top of the strings. Students should practice this piece away from the prepared piano at first so the bizarre spoon sound is less distracting. Like “Skipping through a Construction Site,” the melody in this piece is audible through unprepared notes. It is in middle C position for easier reading and the coordination between hands is fairly simple and within the limits of this level of player.

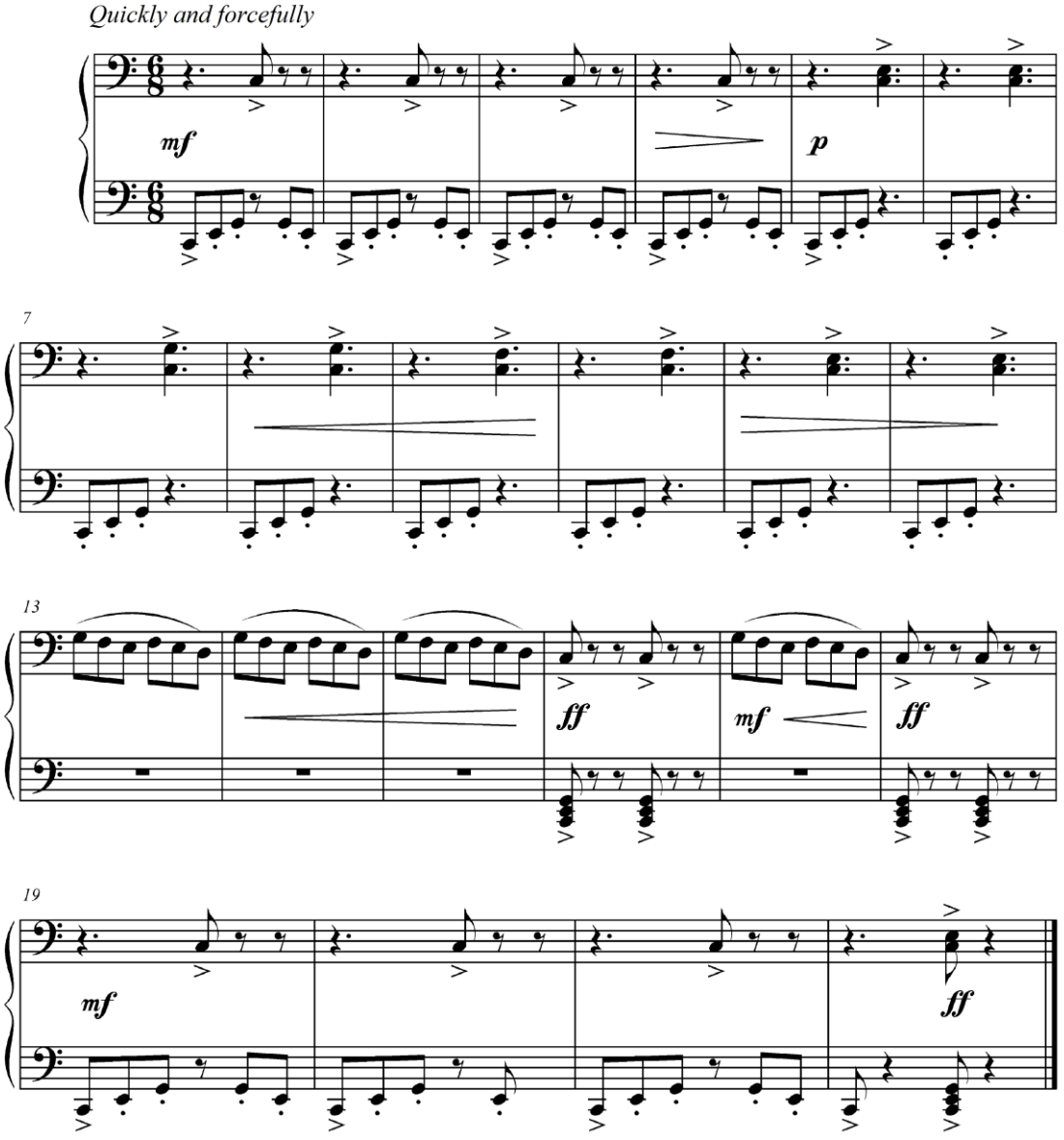
Preparation:
-One RH pitch is prepared (**C3**)
-other RH pitches are unprepared
-All three LH pitches are prepared
(**C2, E2, G2**)

Safety Box:

Clothespins should be lightly tied to each string using 2 pipe cleaners to prevent objects from traveling. Place all objects away from the hammers and all moving parts.

Skipping through a Construction Site

Elizabeth A Nix



Example 8.9: “Skipping through a Construction Site,” Level 1

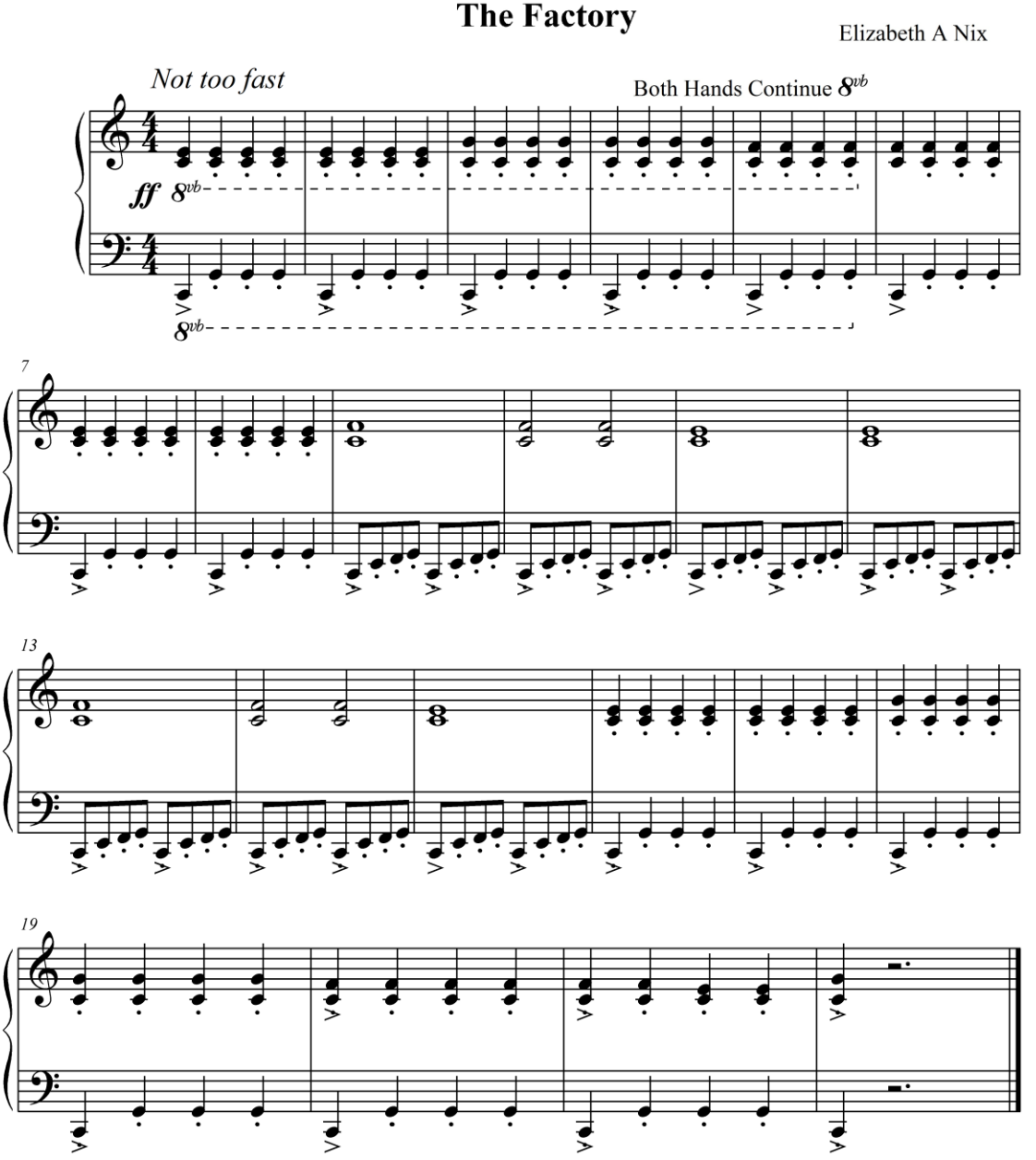
Instructions:

-Tie a large spoon to the lowest C on the piano with a pipe cleaner at it's smallest part. (**C1**)

-Tie a clothespin to **C3** (below middle C) using 2 pipe cleaners.

Safety Box:

Keep an eye on the objects as these are objects that like to travel down the strings and should not be close to the hammers.



Example 8.10: “The Factory,” Level 1

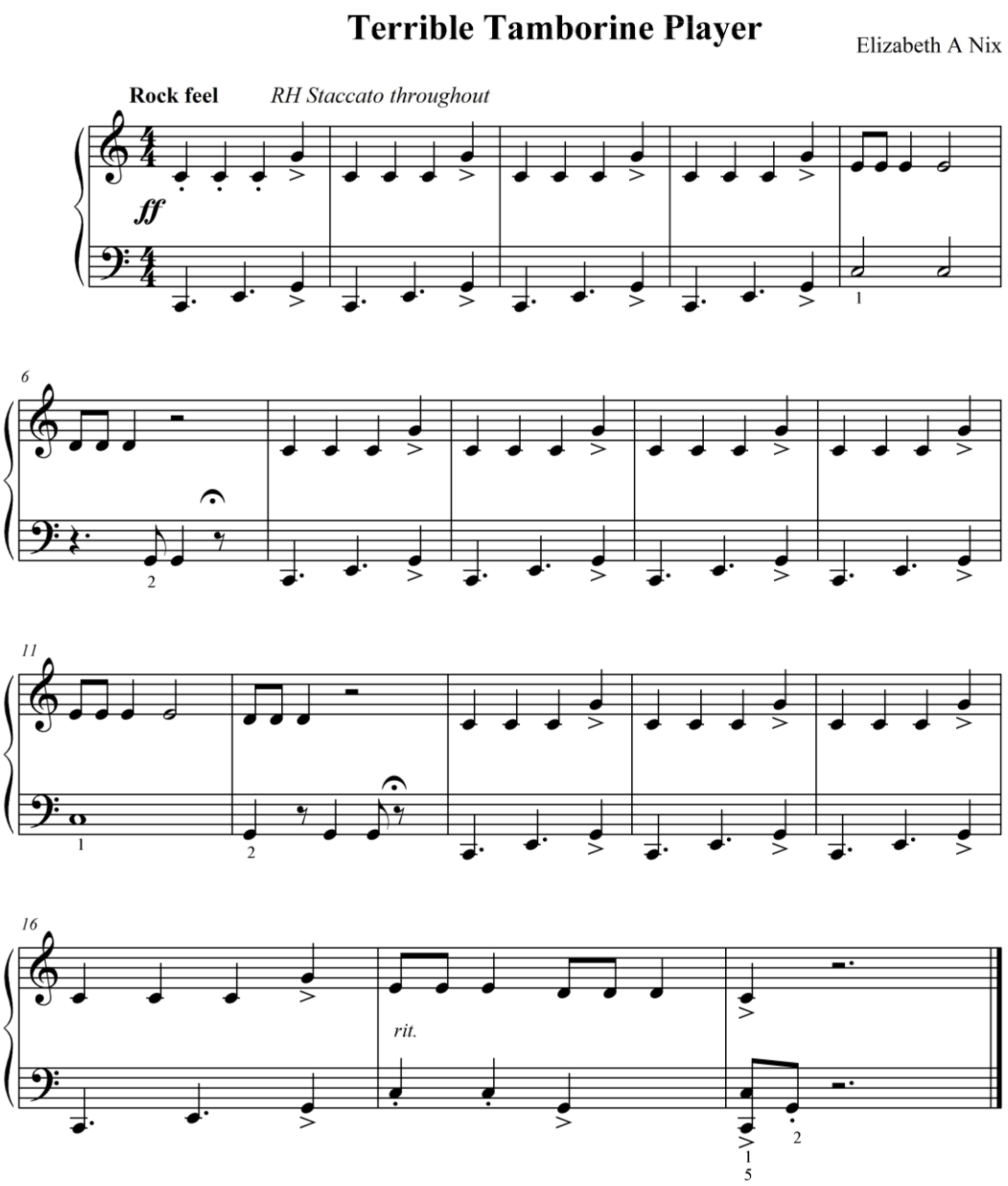
"Terrible Tamborine Player" is Level 2 and involves a spoon for the tambourine part, along with clothespins, two flat erasers, and a small but thick book (Example 8.11). It is not meant to be included with the other three pieces because the rhythms are slightly more advanced and different registers of the piano are prepared. The erasers are to be tied to two pitches in the left hand pentascale with the small book placed on top. The erasers alone do not produce much of a difference, but the weight of the book makes the strings respond more to the rubber. The right hand is in middle C position with D and E prepared with clothespins. The string with two spoons has the least pleasant sound so as it plays alone in varied rhythms it sounds like a tamborine player making mistakes. The imagery associated with these titles combined with the unique sounds of prepared notes is entertaining for students.

Instructions for Preparation:

C2 & E2- tie erasers to the strings using pipe cleaners, balance a small/thick book on them.

G2- Tie two spoons to this string using two pipe cleaners, laying as much of the spoons on the string as possible. -Placement should be in the middle of the string.

C3, D4 & E4- tie a clothes pin to each one of these pitches using two pipe cleaners each. -Keep an eye on these as they like to move.



Example 8.11: “Terrible Tamborine Player,” Level 2

Chapter 9: Conclusion

Unfortunately for young pianists, some of the most interesting and perception-altering sounds of the past century are associated with concepts that are commonly thought of as advanced. By minimizing the difficulty, combining approaches for a more complete understanding, or finding ways to expose students to sounds while omitting conceptual explanations, young students can be exposed to a wealth of post-tonal sound relationships and confidence-building elements. My newly composed collection of pieces allows teachers to expose students to these techniques and concepts early, when students are at their most impressionable stages and are still developing listening skills.

Post-tonal scales and chords are necessary building blocks to many more interesting innovations, yet in much of the existing literature they are the simplified element. Comparing post-tonal scales to diatonic scales and subduing dissonance to gain resolution keeps more advanced ideas out of the reach of students. Instead, finding ways to introduce them as what they are (alternative and acceptable scale and chord constructions) allows concepts like polytonality and serialism to be the next methodical step, rather than several steps away.

As is evident in the method books currently in use, it is easy to become too regimented, mostly for the convenience or comfort level of the teachers. Choosing supplemental pieces for students based only on their strengths and existing interests is doing them a huge disservice. It should be that a teacher's goal and responsibility is to continually broaden students' knowledge with musical thoughts of old and new that they do not hear at home or in social media.

Since leaving my own comfort zone, I have noticed that my students have left theirs as well. They ask more interesting questions about the anatomy of the piano and pitch

relationships. Exposure to post-tonal techniques can help students with the music of other genres as well. This paper discussed several post-tonal techniques that require new ways of practicing techniques that students may not encounter until later with traditional repertoire, such as various touches for aleatoric music and hands alone practice for polytonal music.

The more unusual or dissonant sounds of post-tonal music that dissuade teachers themselves, do not have the same effect on young students. Exposure to dissonance can greatly effect ear training, as the young are constantly developing their listening skills at a rapid pace. The experience of executing confident, aural dominance over an unusual piece of music can have a huge effect on a student's confidence on stage or in festivals. They can become less hesitant to try new things, and more importantly, to make mistakes. This absence of self-conscious playing can help teachers get more done in a short period of time, and opens doors to new kinds of discussions.

Many teachers choose to introduce new kinds of music to groups of students in monthly gatherings. Teachers who are less comfortable adding post-tonal repertoire to individuals may find group lessons a more efficient way to become familiar with how the unfamiliar techniques can be taught effectively. Music literature has changed from age to age, developed and expanded, been dismantled and then put back together again. Should not lessons evolve as well?

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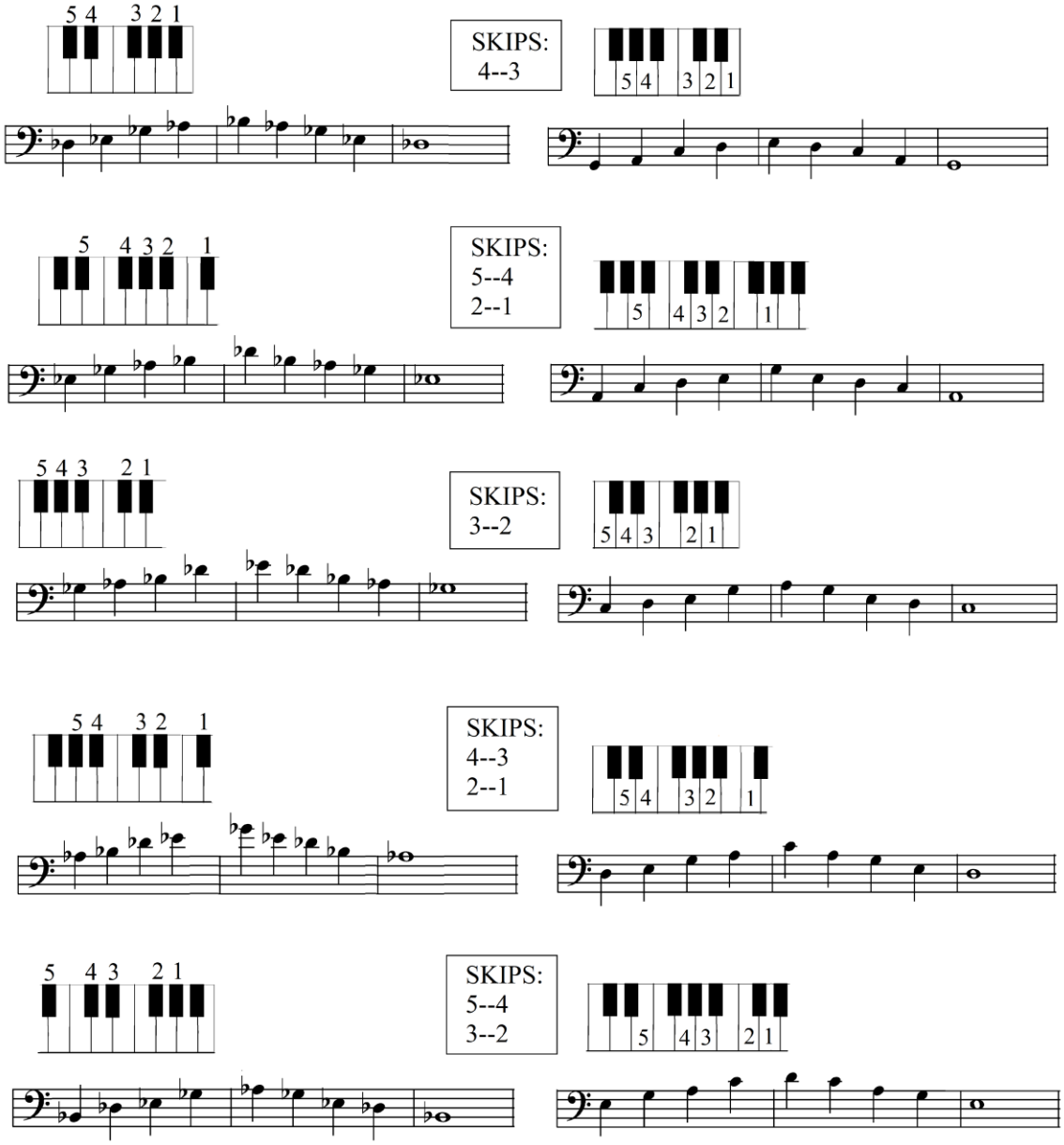
Appendix

Level 1 Compositions

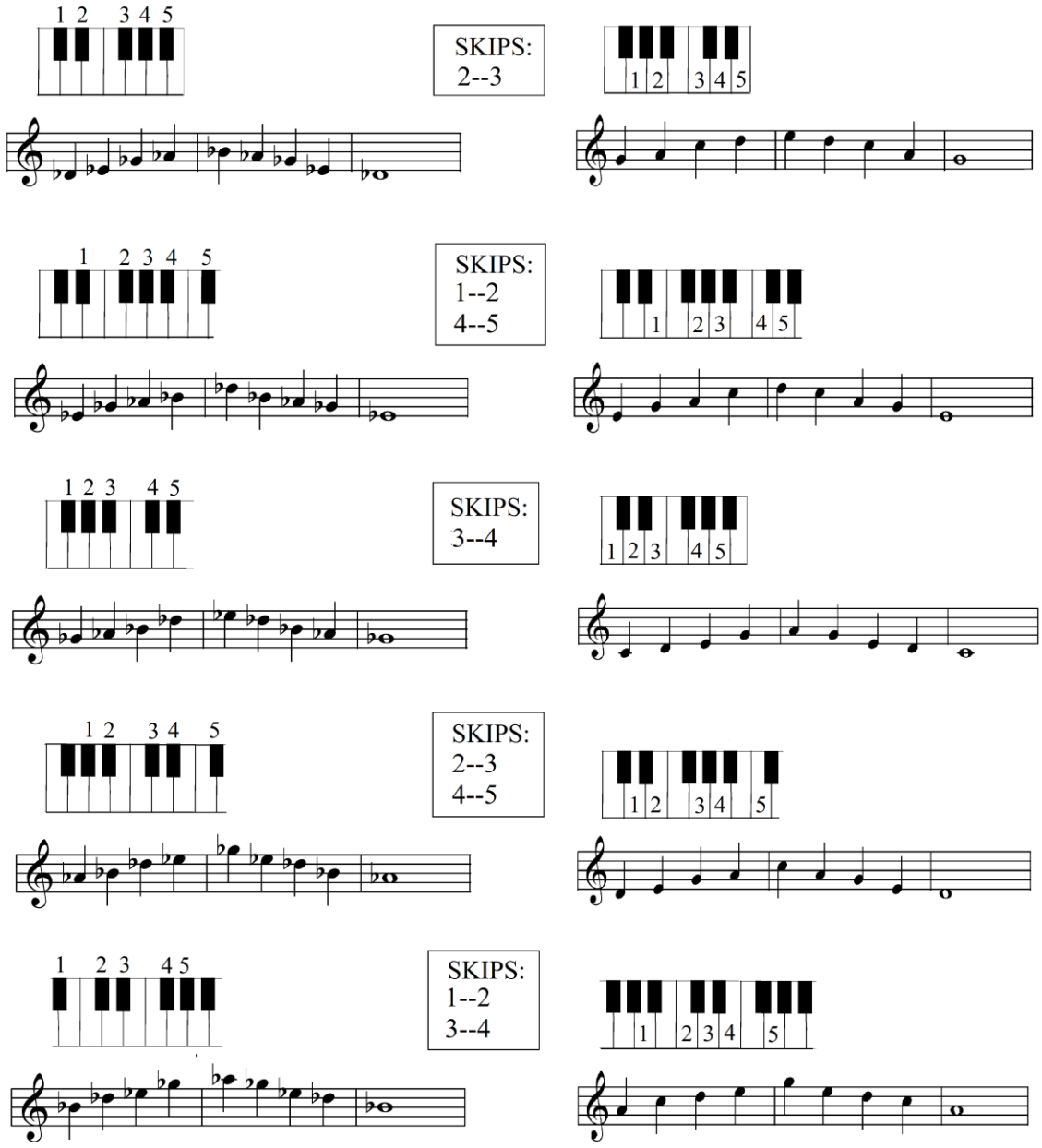
Planting Spuds

Major Pentatonic Scales for the Left hand
on Black keys and C Major



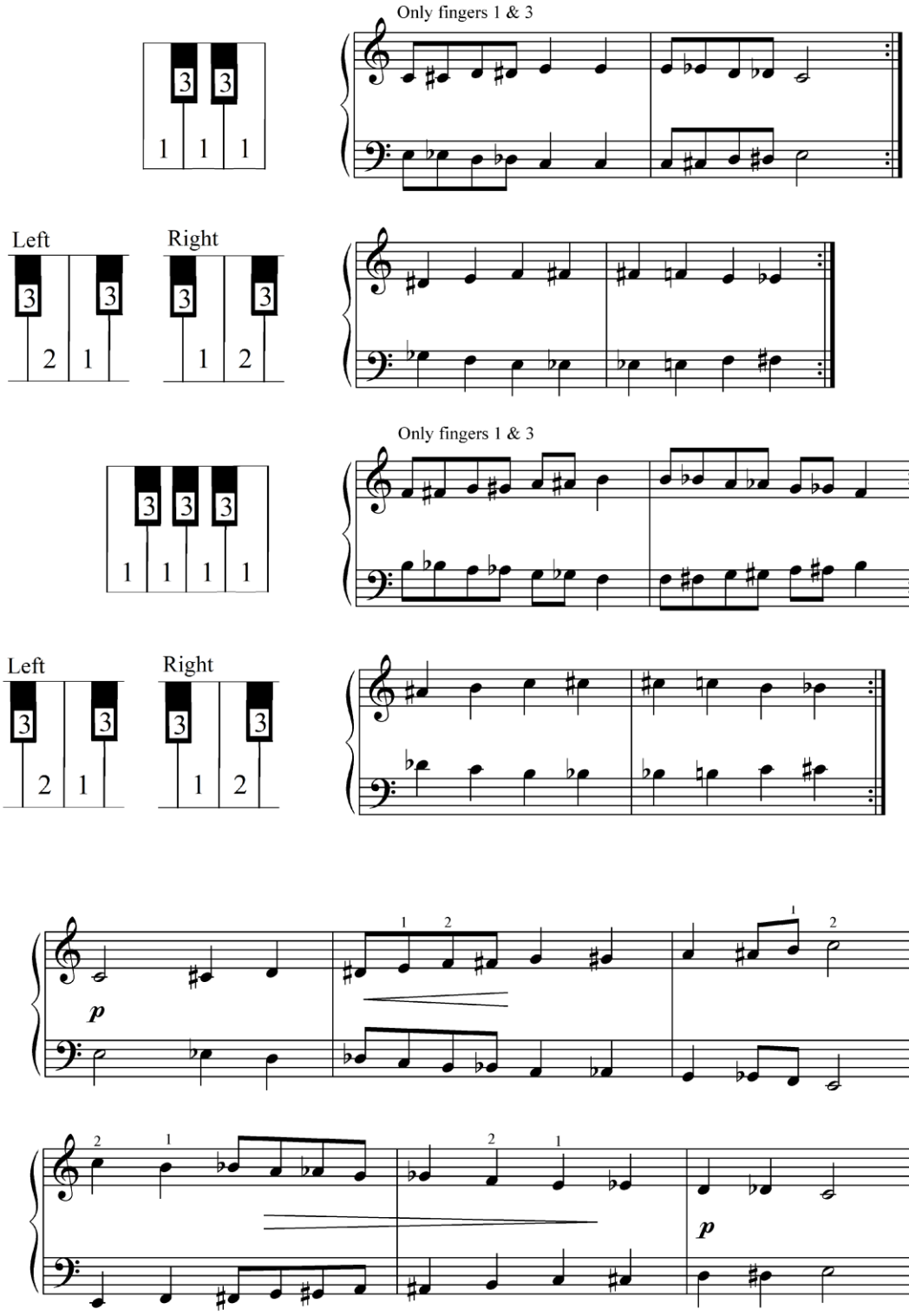
Planting Spuds

Major Pentatonic Scales for the Right hand
on Black keys and C Major



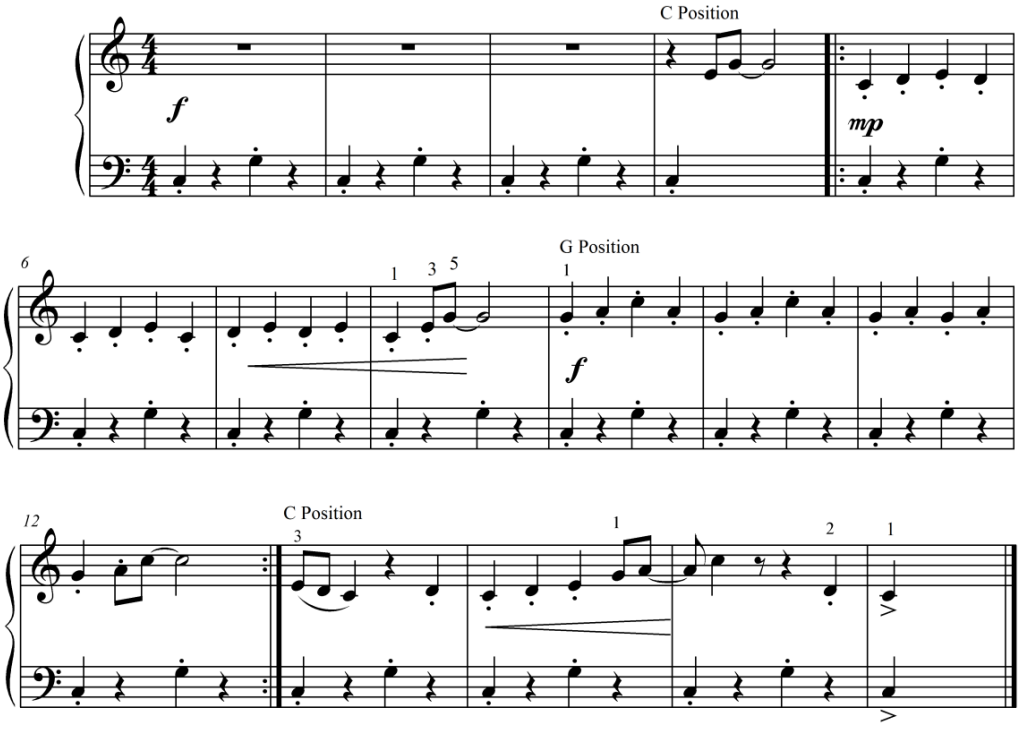
Chromatic Mirror House

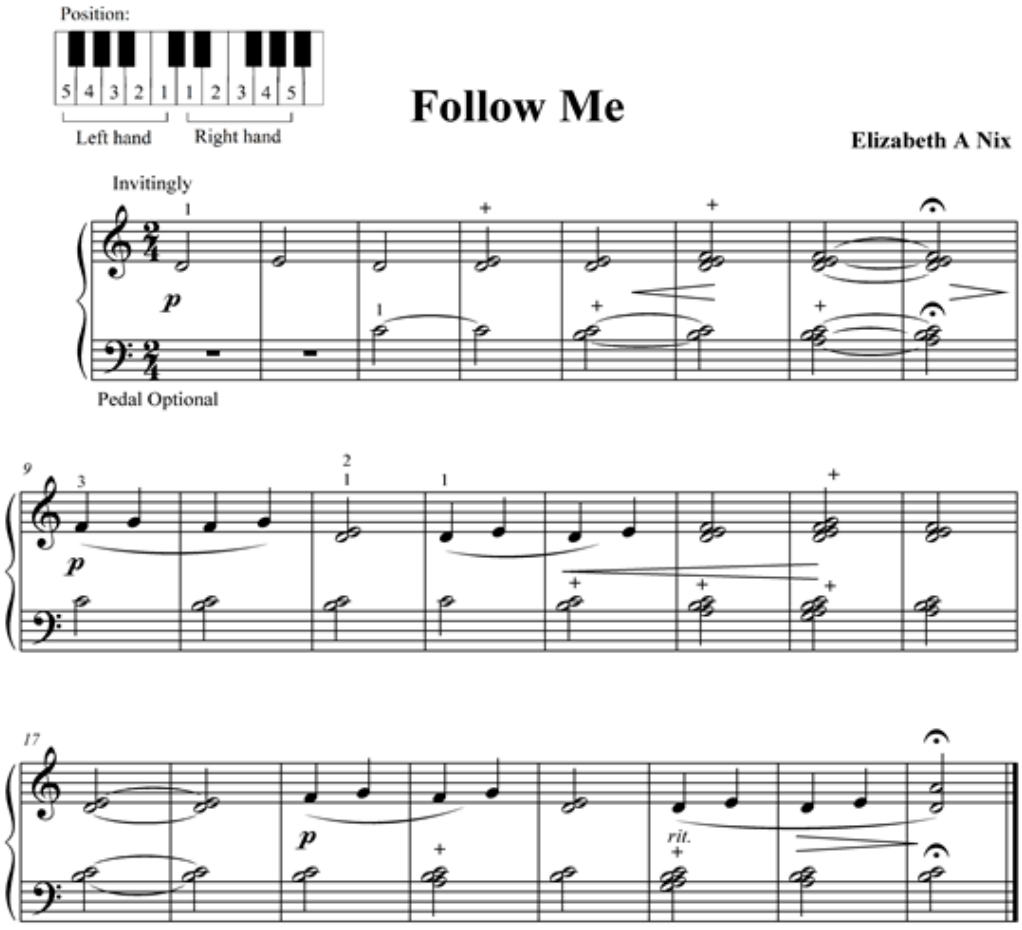
Play these segments in any order and as many times as you like.



No F's or B's About It

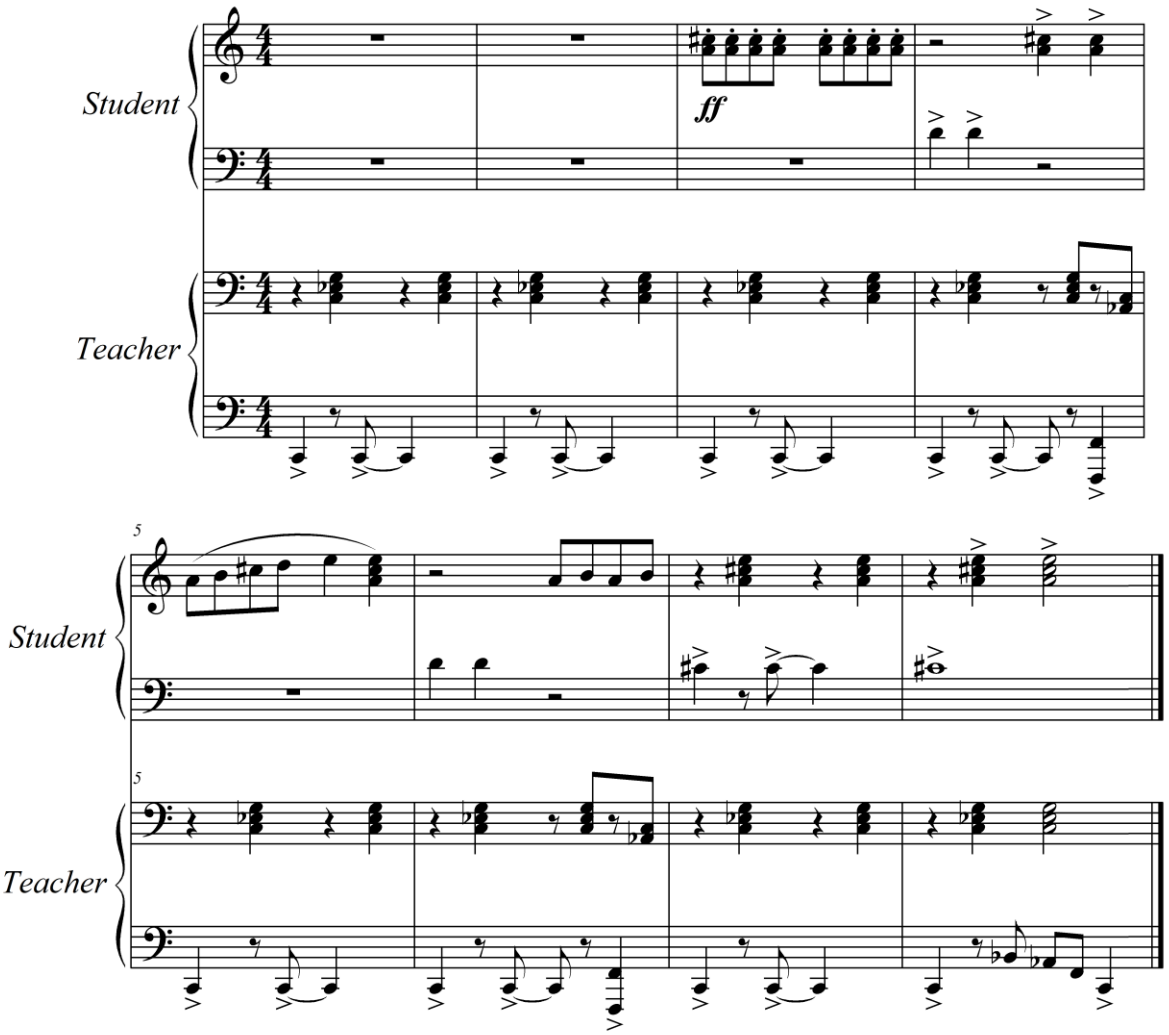
Elizabeth A Nix




Position:
5 4 3 2 1 1 2 3 4 5
Left hand
Right hand
Follow Me
Elizabeth A Nix
Invitingly
Pedal Optional
rit.

Clueless Rock Band

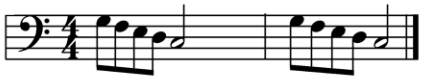
Elizabeth A Nix



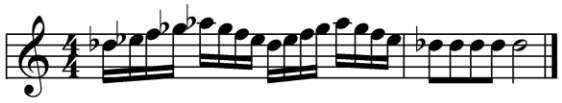
At the Dog Park

Elizabeth A Nix

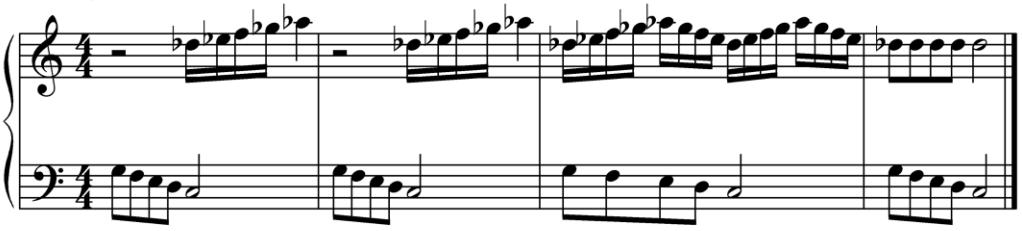
Gert at the dog park
(Left hand)



Fiona at the dog park
(Right hand)



Quickly

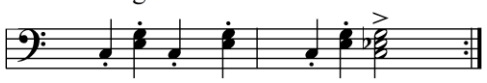


Fiona and Gert are Friends

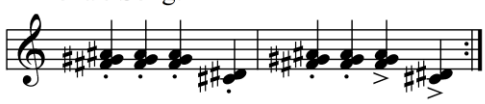
Elizabeth A Nix

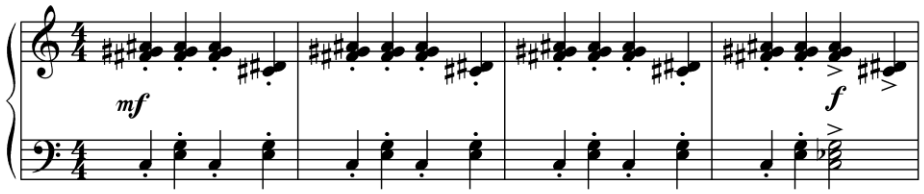
Play through each part a few times.

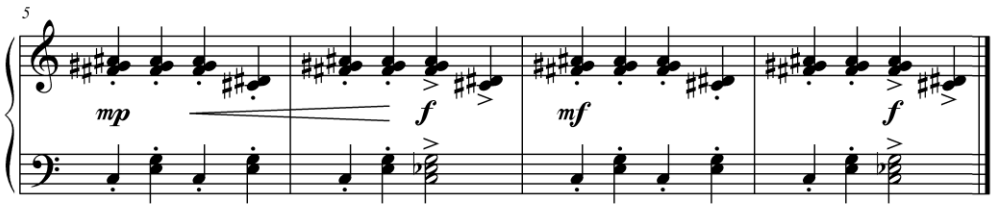
Gert's Song:



Fiona's Song:

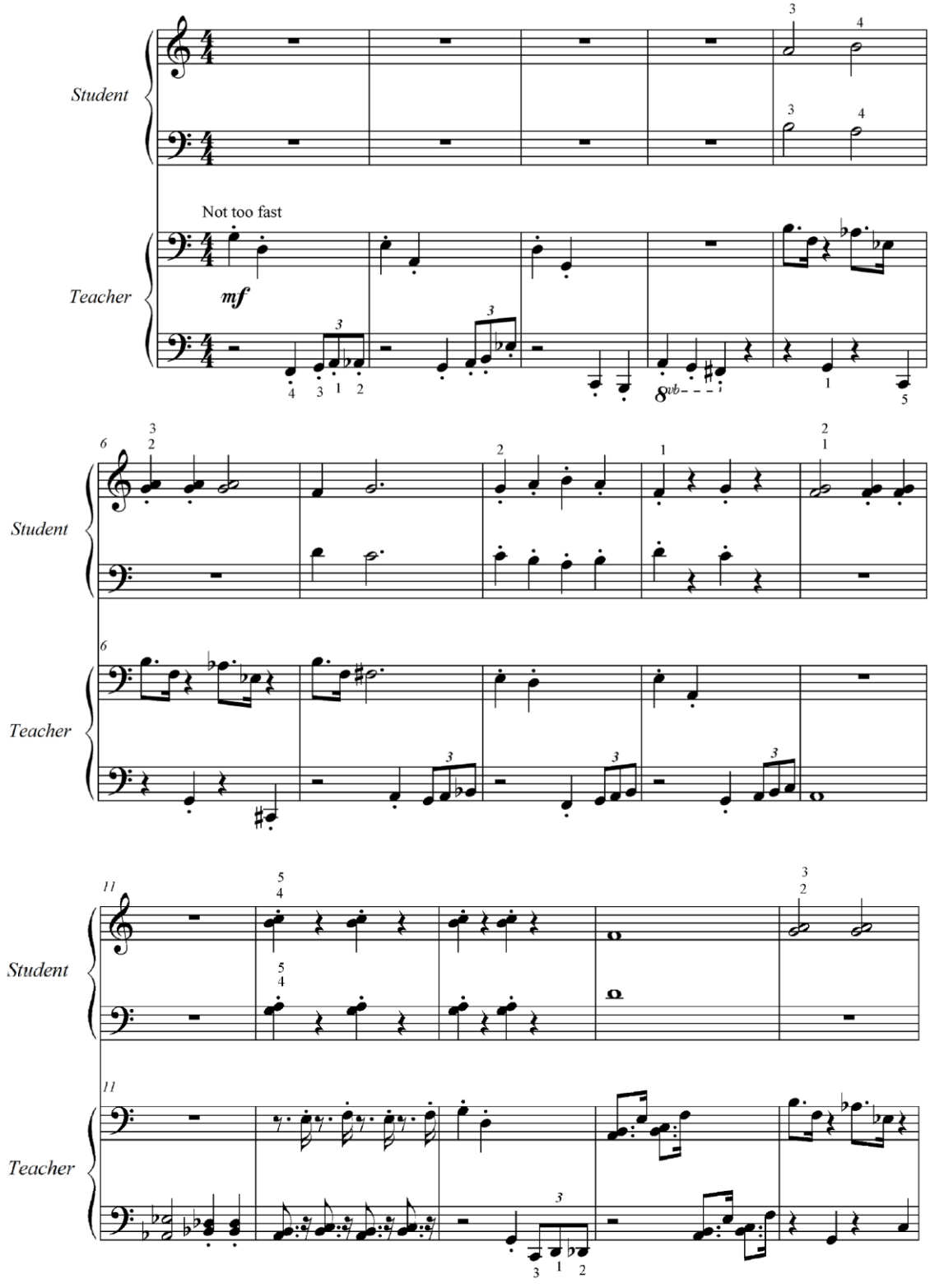


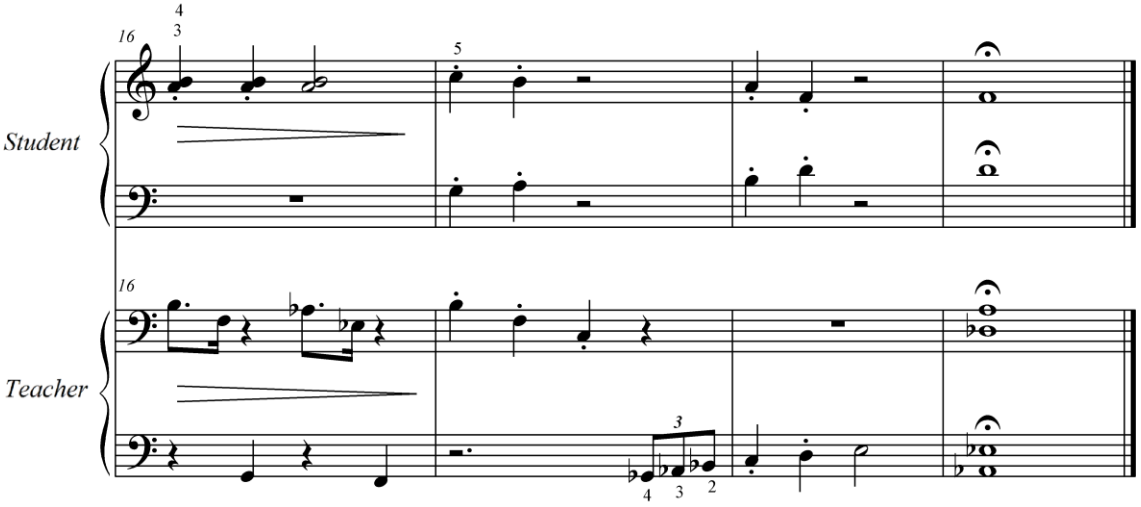


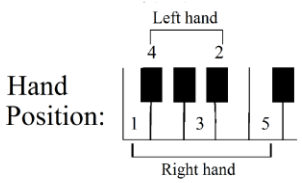


A Strange Parade

Elizabeth A Nix

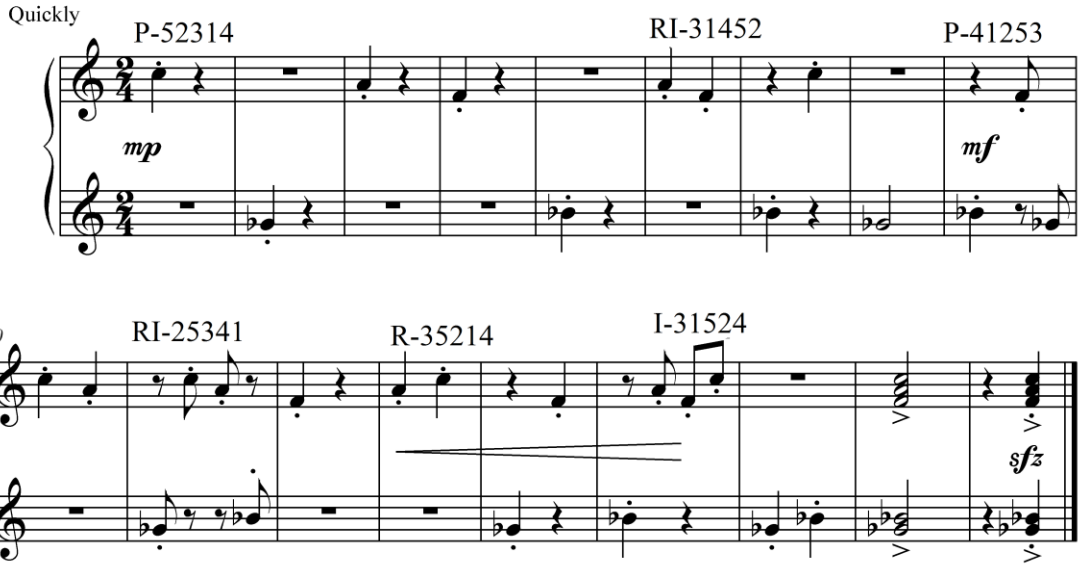






A Confident Mouse

Elizabeth A Nix



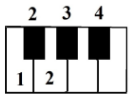
Sharing Fingers

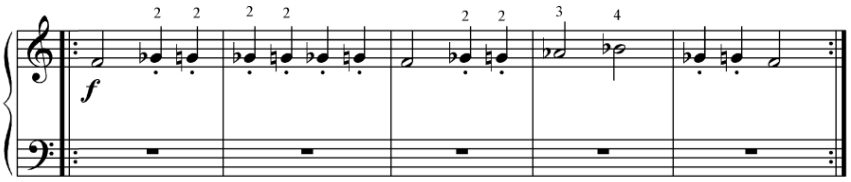
Preparation for Shifting Hand Shapes

Elizabeth A Nix

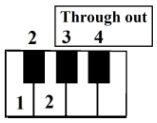
RH Exercises

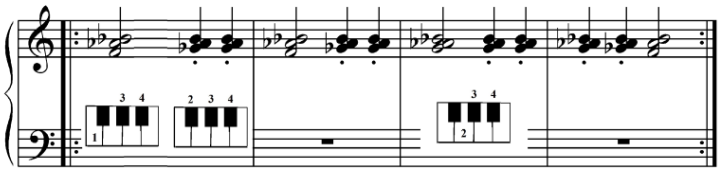
Moving 2 Finger



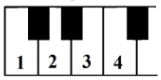


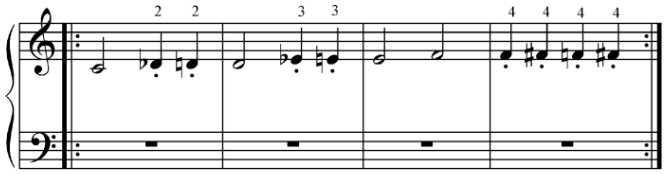
Moving lowest note



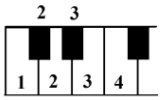


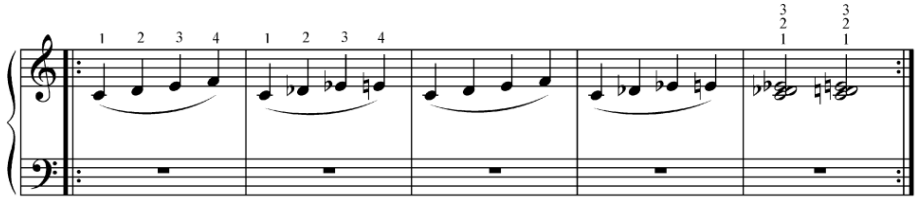
Walk up and Rest





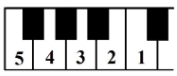
Changing Hand Shapes Smoothly

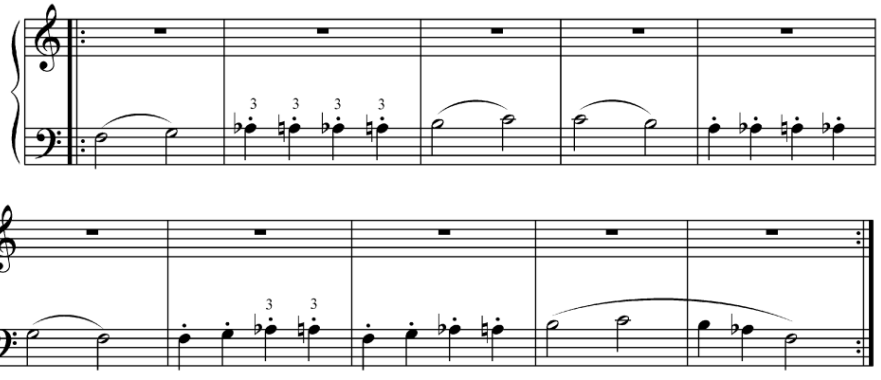




LH Exercise

LH: Moving 3 Finger

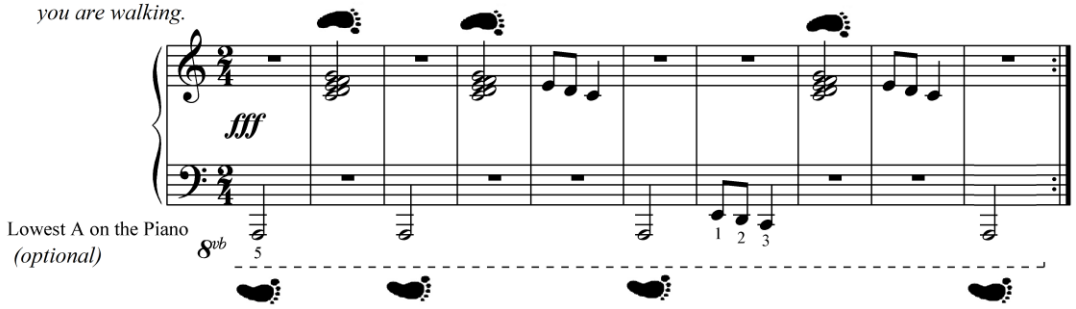




Bigfoot Takes a Piano Lesson

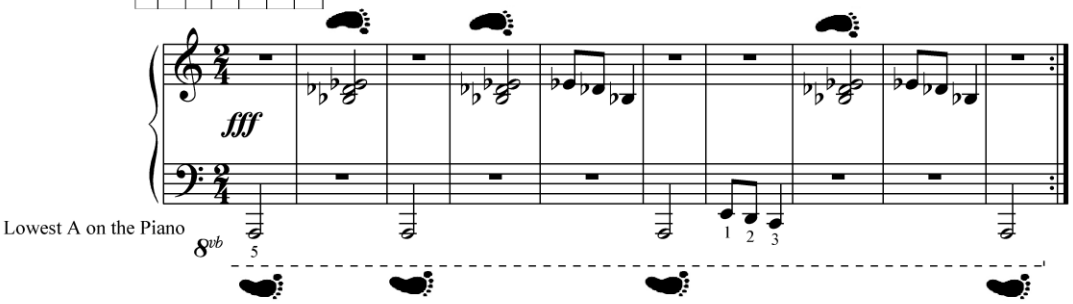
Elizabeth A Nix

Let your body sway as if you are walking.



Right Hand Position

Bigfoot Tries to Practice

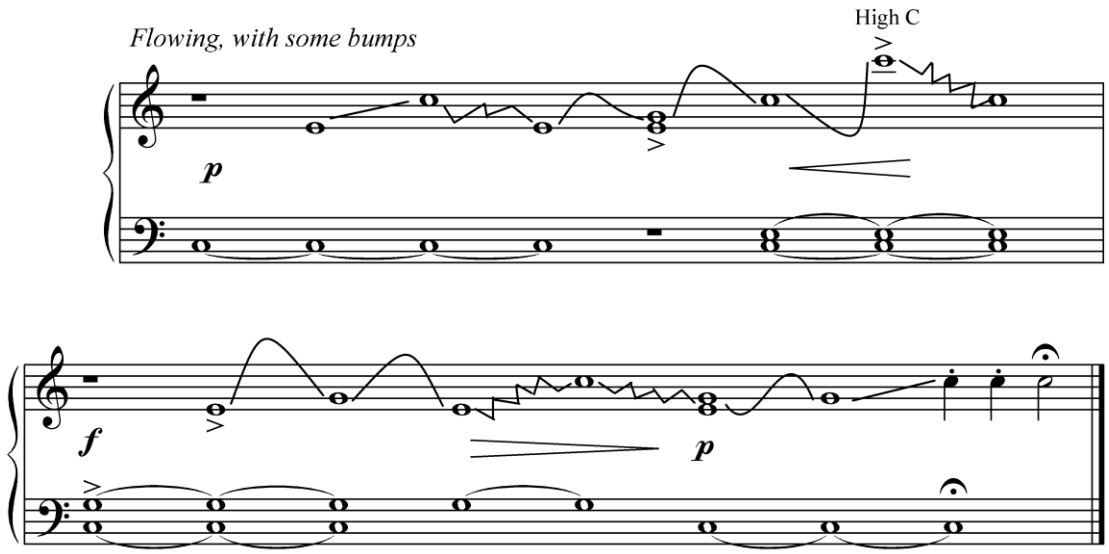


Riding Bikes on a Long Road

Elizabeth A Nix

Flowing, with some bumps

High C

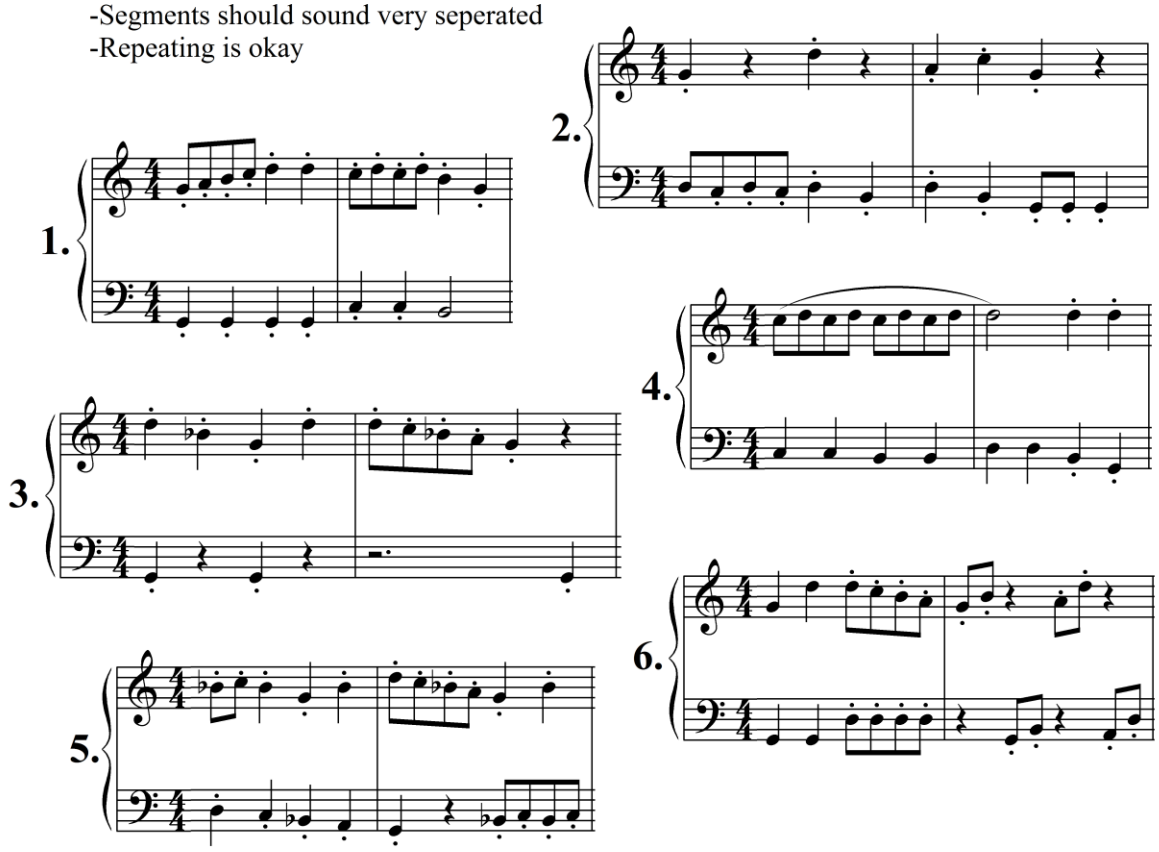


Mice in my Kitchen

Roll the Di

Elizabeth A Nix

Instructions:
-Roll a di cube to determine the order
-You can roll as you go
-Segments should sound very seperated
-Repeating is okay



The Month Song

Kids can come up with their own twelve-tone row!

Cut out the months to the right in order to place them on the keyboard picture below.

Rules for placing the months on the keys:

-Do not go in any order at all!
-Use a combination of:
Up, down, stepping, skipping a little, and skipping a lot!
-Remain within the octave

Cut out these months and place them randomly on the keys!

January	July
February	August
March	September
April	October
May	November
June	December

Sing the months in order! You can do this alone or maybe your teacher can do it too! Begin with "January"

You can also sing them in order of your favorite month to least favorite

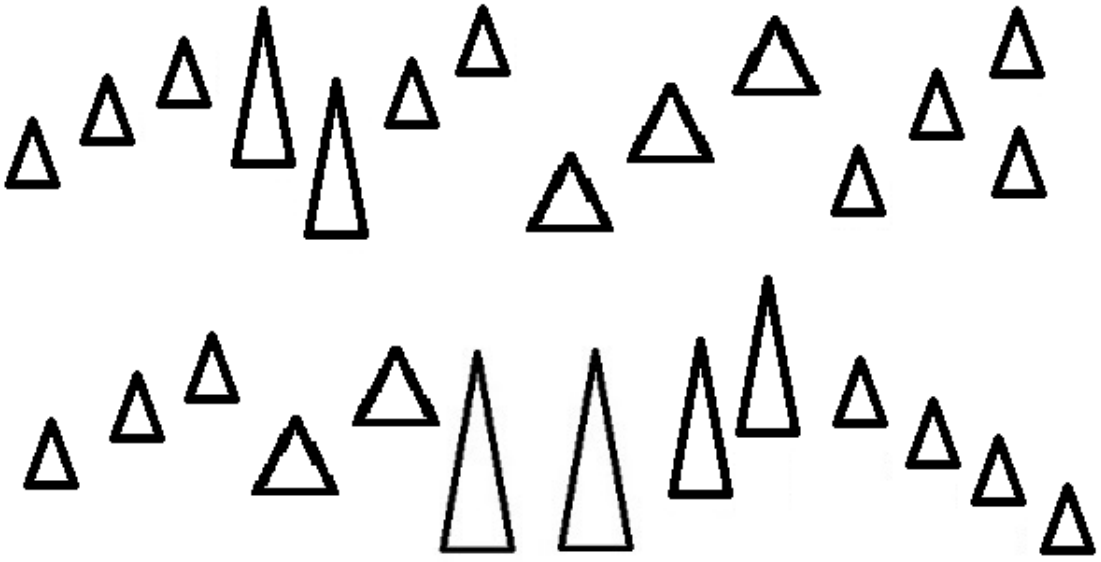
Board Games

Elizabeth A Nix

Instructions:
Assign a rhythmic value to each shape and write them into each shape. Be consistant (All ▲ should mean the same thing).
Play the rhythms using any pitches or chords that you like.

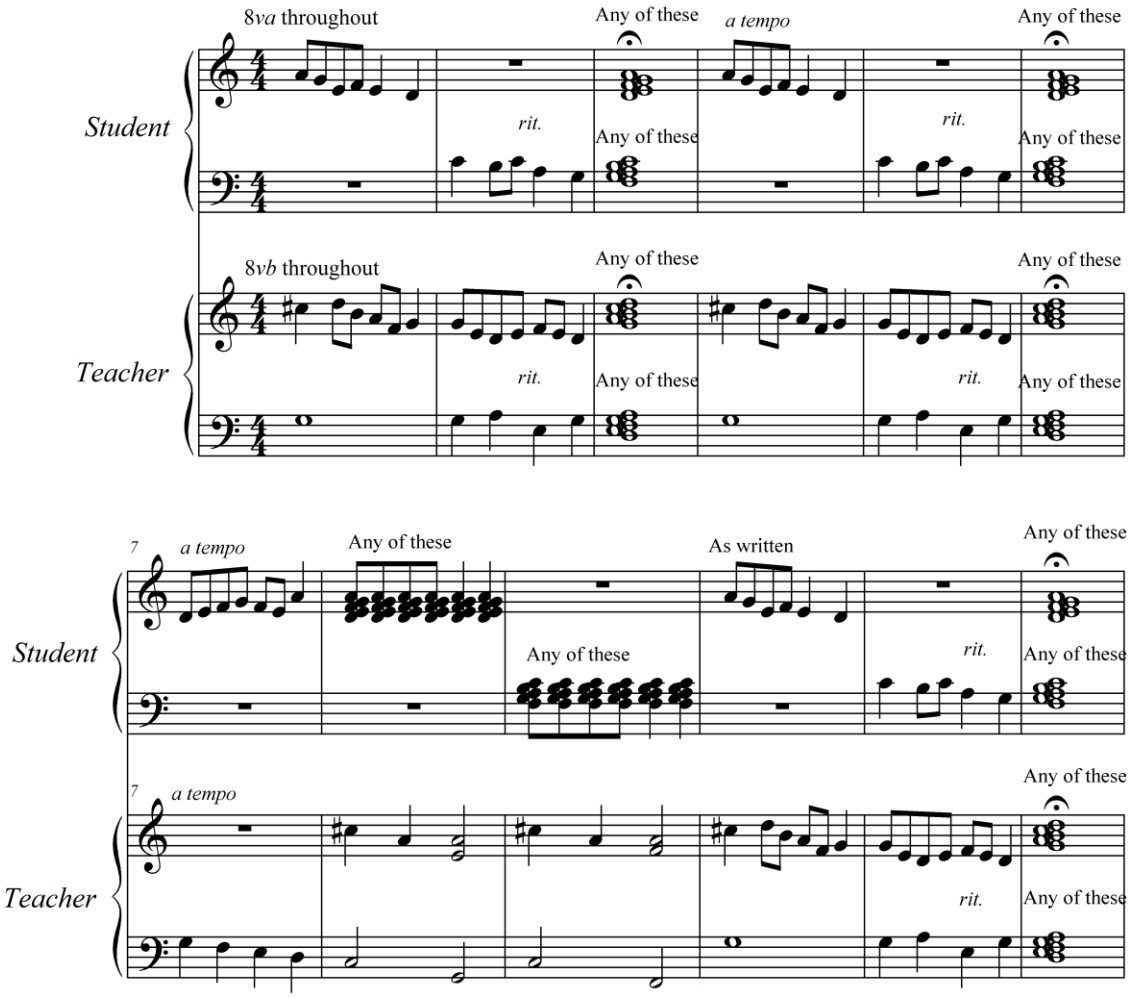
Sonar *Assign each shape a rhythmic value*

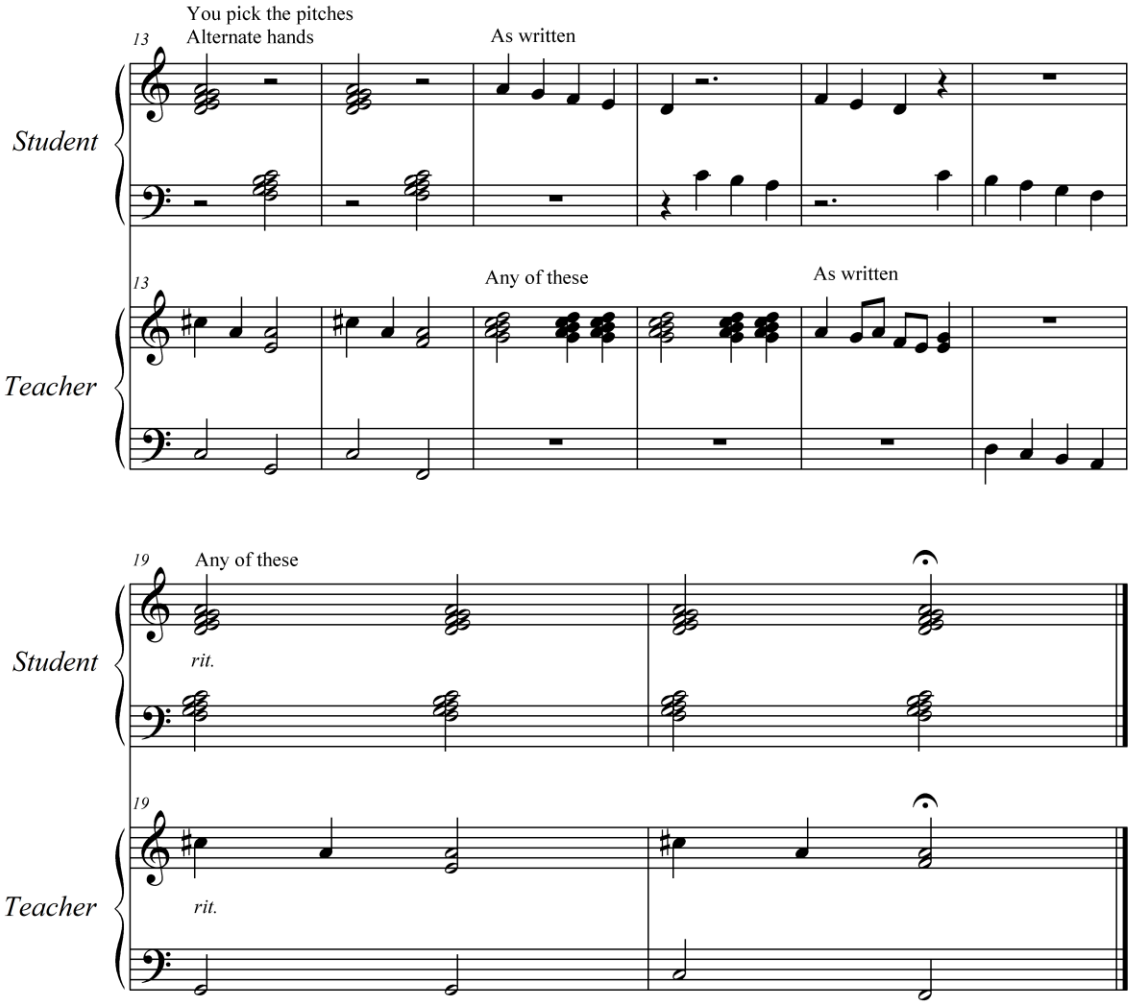
Indian Village *Assign each differently sized triangle a rhythmic value (4 types)*

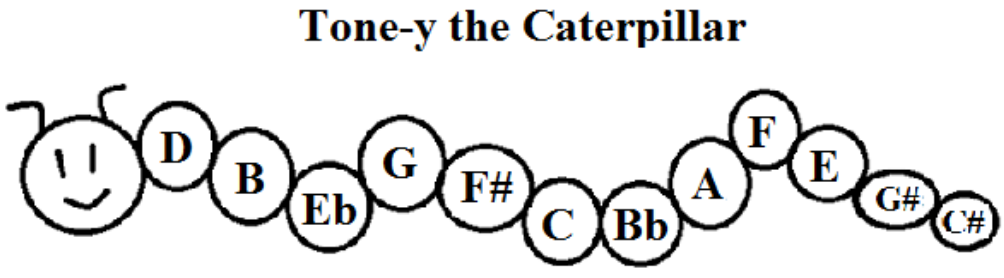


Who's Picking the Pitches?

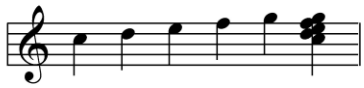
Elizabeth A Nix



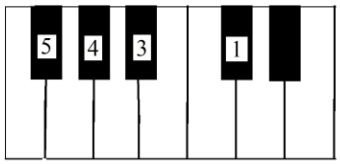

You pick the pitches
Alternate hands
As written
13
Student
13
Any of these
As written
Teacher
19
Any of these
rit.
Student
19
rit.
Teacher


Tone-y the Caterpillar
D
B
Eb
G
F#
C
Bb
A
F
E
G#
C#

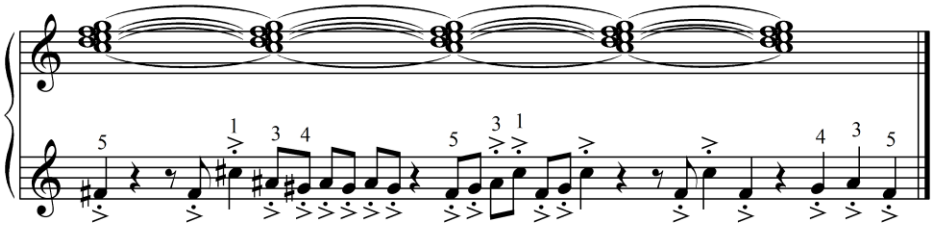
Before you start: Silently press down and hold each of these C-position notes until they are all down.



Left hand position:



Bats

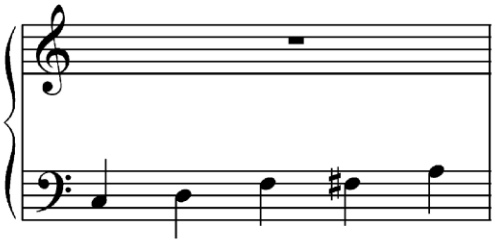


Try various octaves with your left hand. Which octave sounds better ?
Try with and without pedal. What does the pedal do to the sound of the overtones?

Plucking and Clucking

Elizabeth A Nix

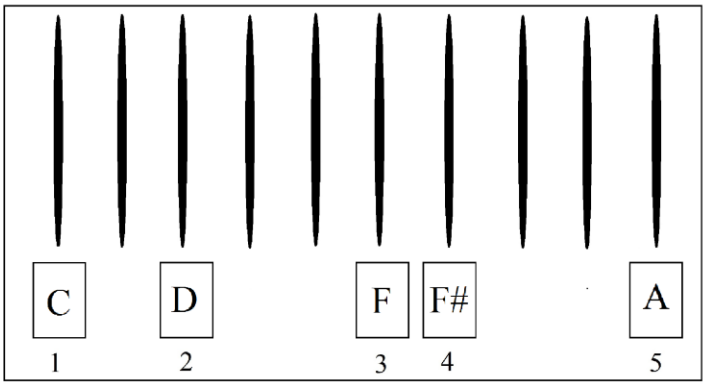
Teachers:
Place tape on the strings of these 5 pitches, 2 octaves below where they are written



Instructions:
-Touch each string using tape to find them
-Hold down the pedal (student or teacher)

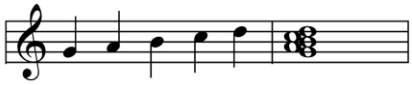
-Play each string 4 times (left to right)
-Play each string 3 times, (left to right)
-Play each string 2 times, with more space, (right to left)
-Play each string 1 time (left to right.... then right to left)

What it will look like inside of the piano:

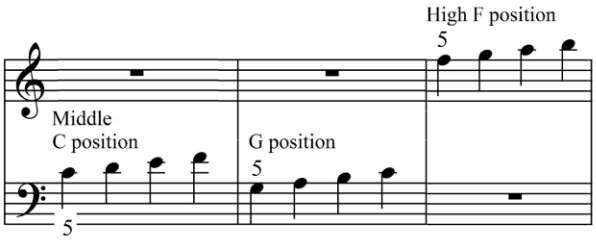


In Between: Instructions and positions

Right hand: silently press down each one of these notes in G-position until they are all held down.



Left hand: must locate the following four-finger positions. Be able to find C, G, and F with your 5-finger. Left hand will cross over the right hand.



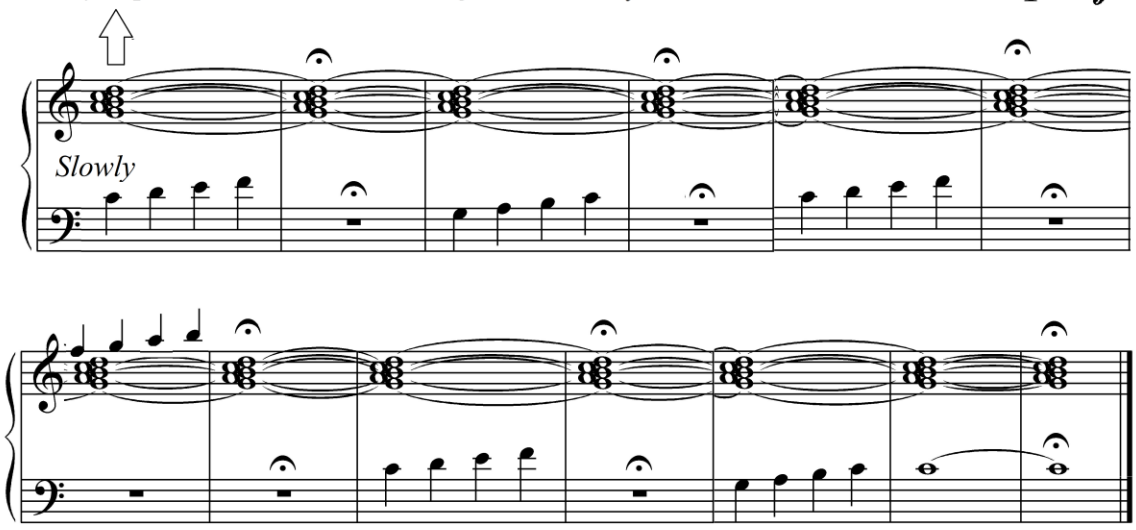
In Between

Elizabeth A Nix

(See Instructions Above)

Silently depress the RH before starting

Which dynamic makes better overtones? ***p*** or ***f***

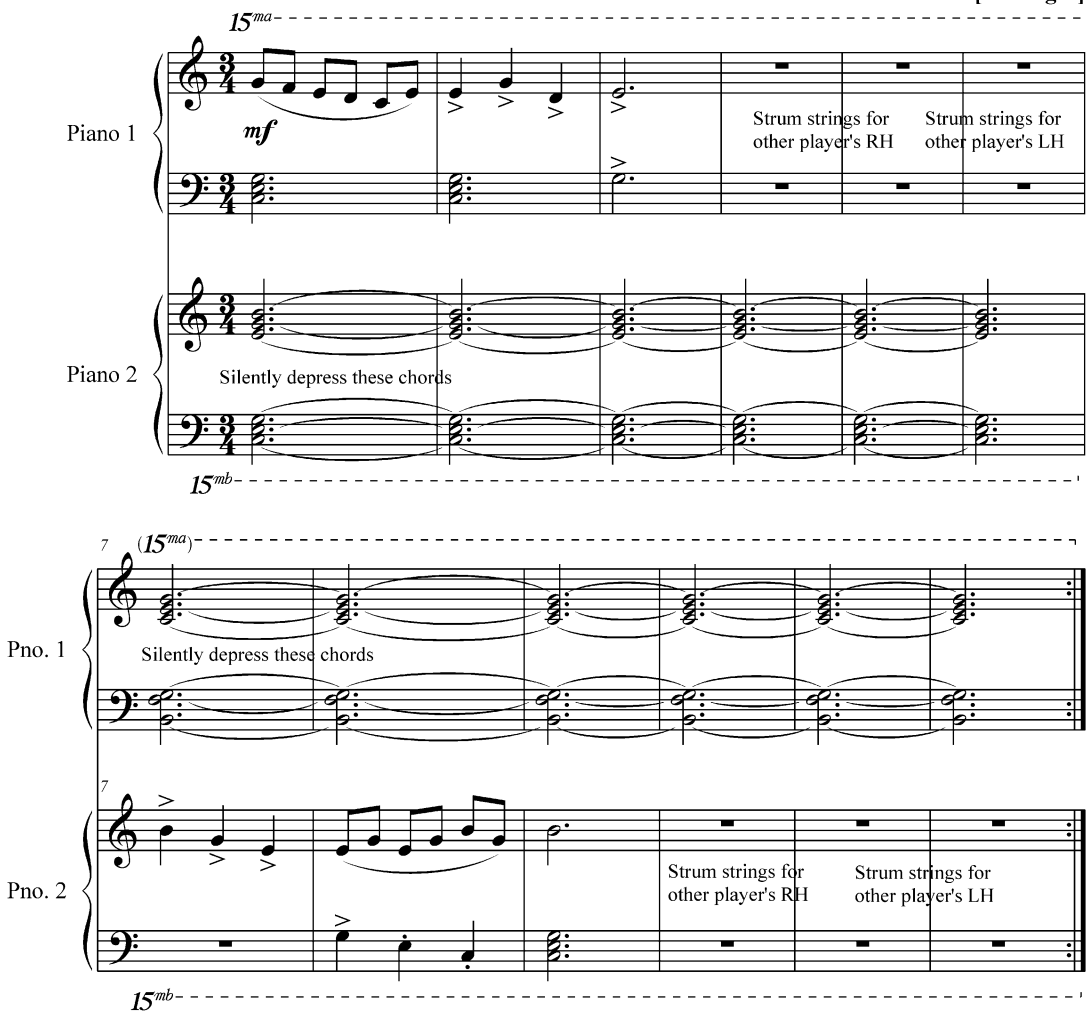


String Ensemble

Score

[Subtitle]

Elizabeth A Nix
[Arranger]



Instructions:

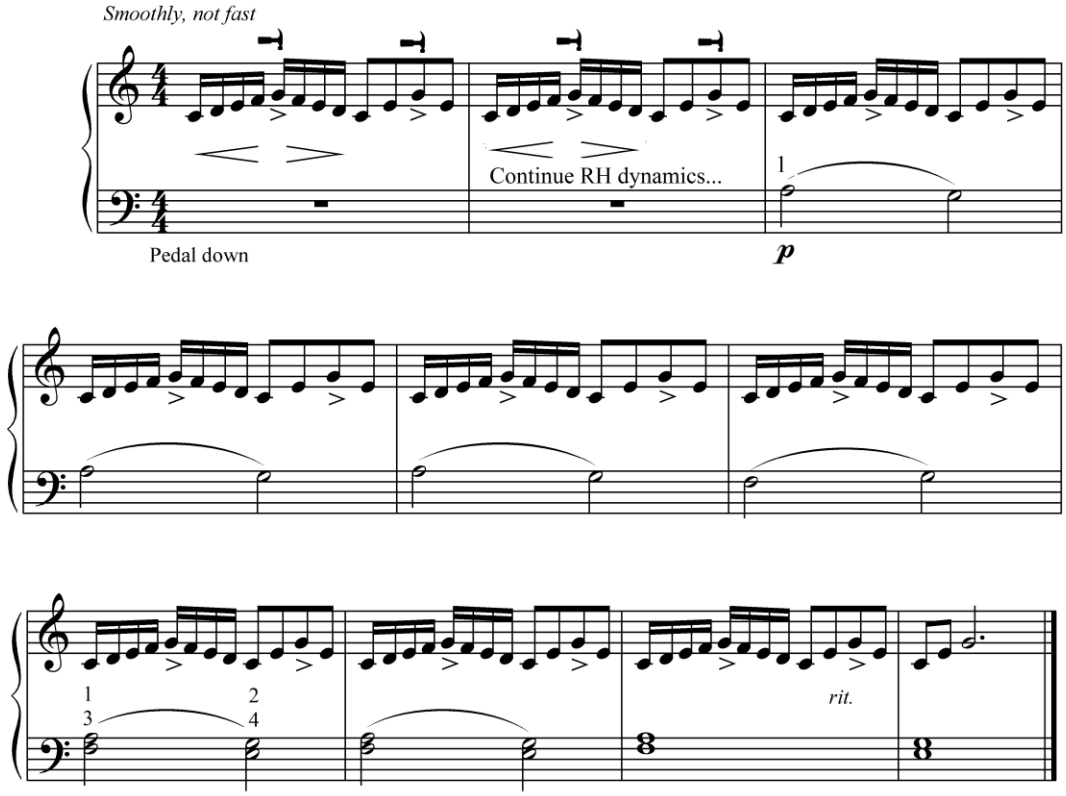
-Middle C pentascale is prepared with large cotton balls attached with pipe cleaners.

Hint: The G's are the hammered notes

Position:
-RH is in middle C-position
-LH is in d minor position

Daydreaming Blacksmith

Elizabeth A Nix



Preparation:
-One RH pitch is prepared (**C3**)
-other RH pitches are unprepared
-All three LH pitches are prepared
(**C2, E2, G2**)

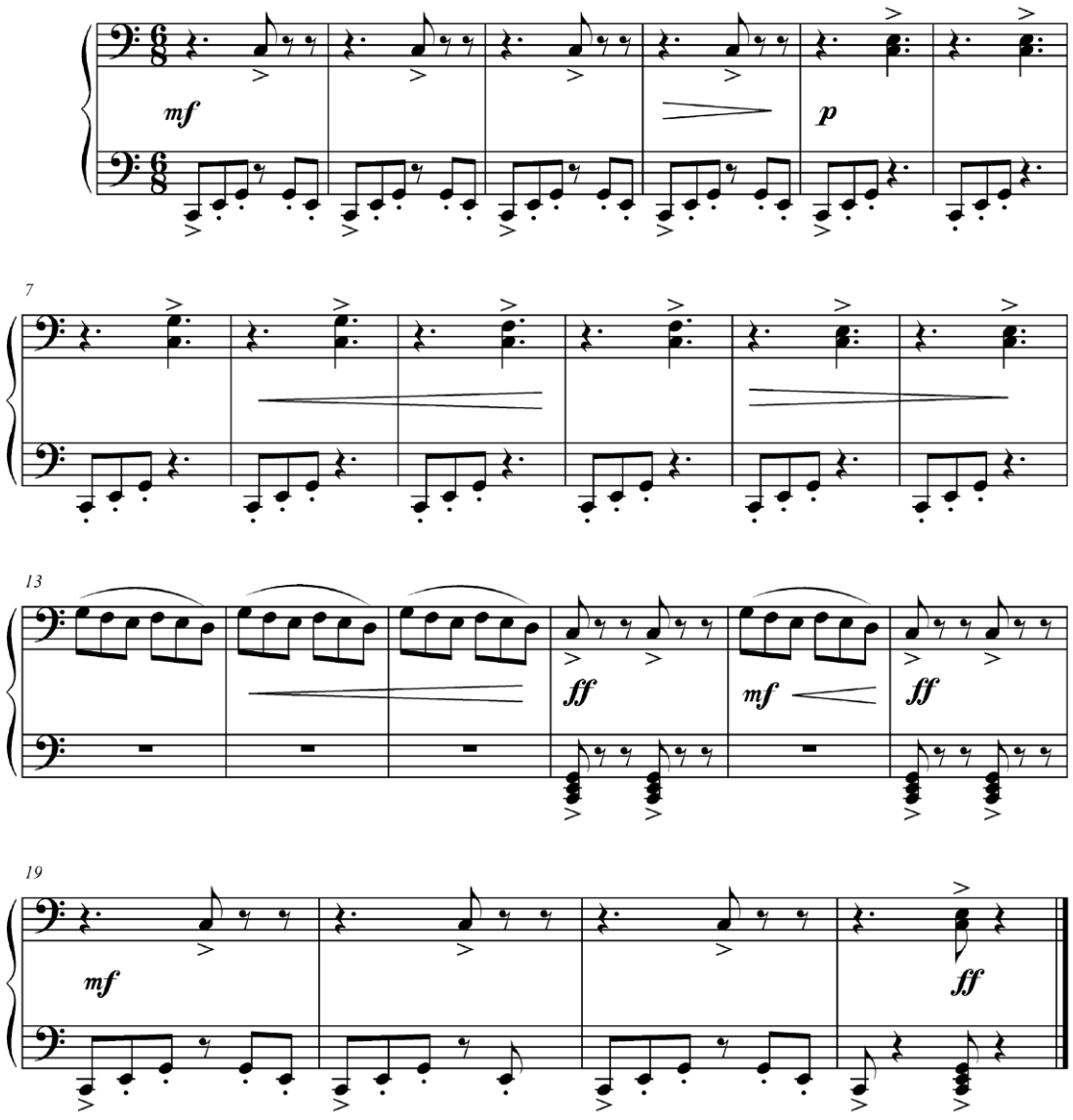
Safety Box:

Clothespins should be lightly tied to each string using 2 pipe cleaners to prevent objects from traveling. Place all objects away from the hammers and all moving parts.

Skipping through a Construction Site

Elizabeth A Nix

Quickly and forcefully



Instructions:

-Tie a large spoon to the lowest C on the piano with a pipe cleaner at it's smallest part. (**C1**)

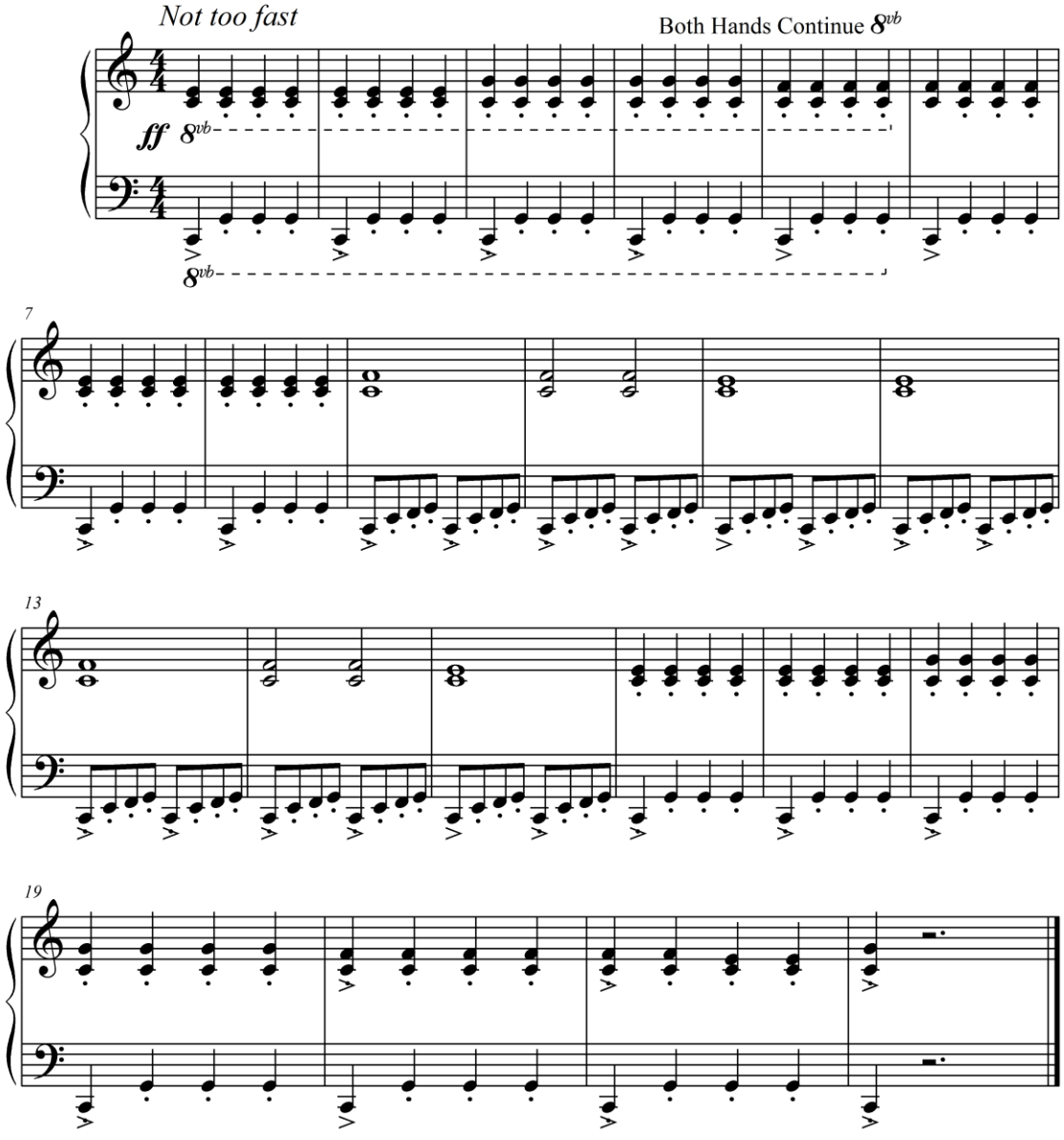
-Tie a clothespin to **C3** (below middle C) using 2 pipe cleaners.

Safety Box:

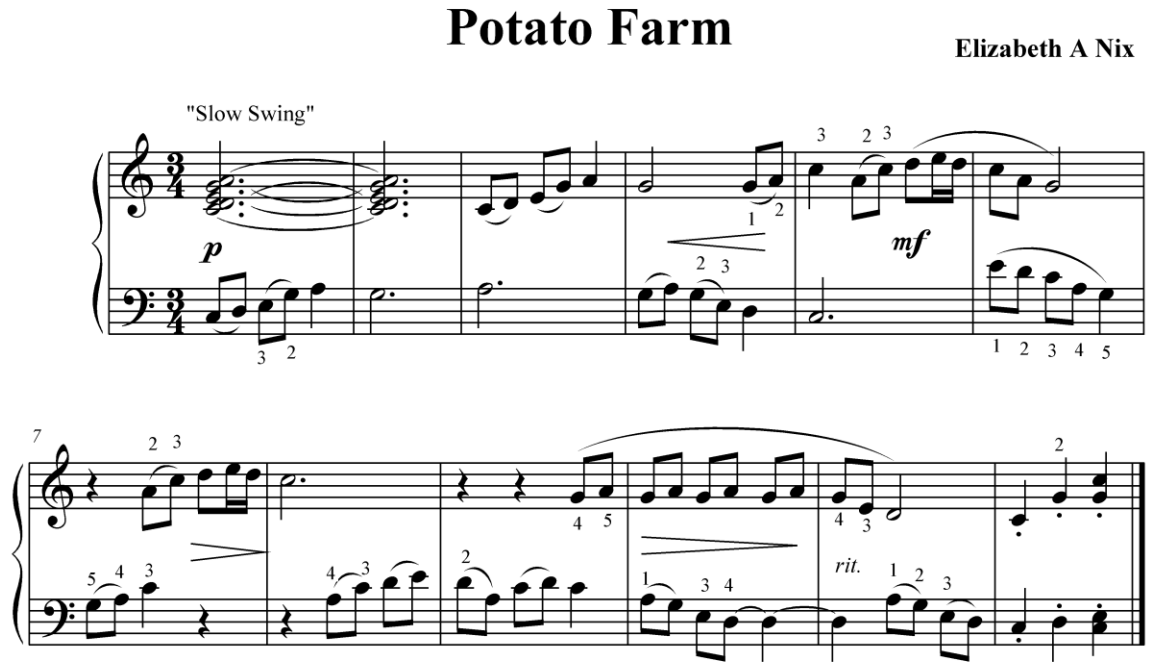
Keep an eye on the objects as these are objects that like to travel down the strings and should not be close to the hammers.

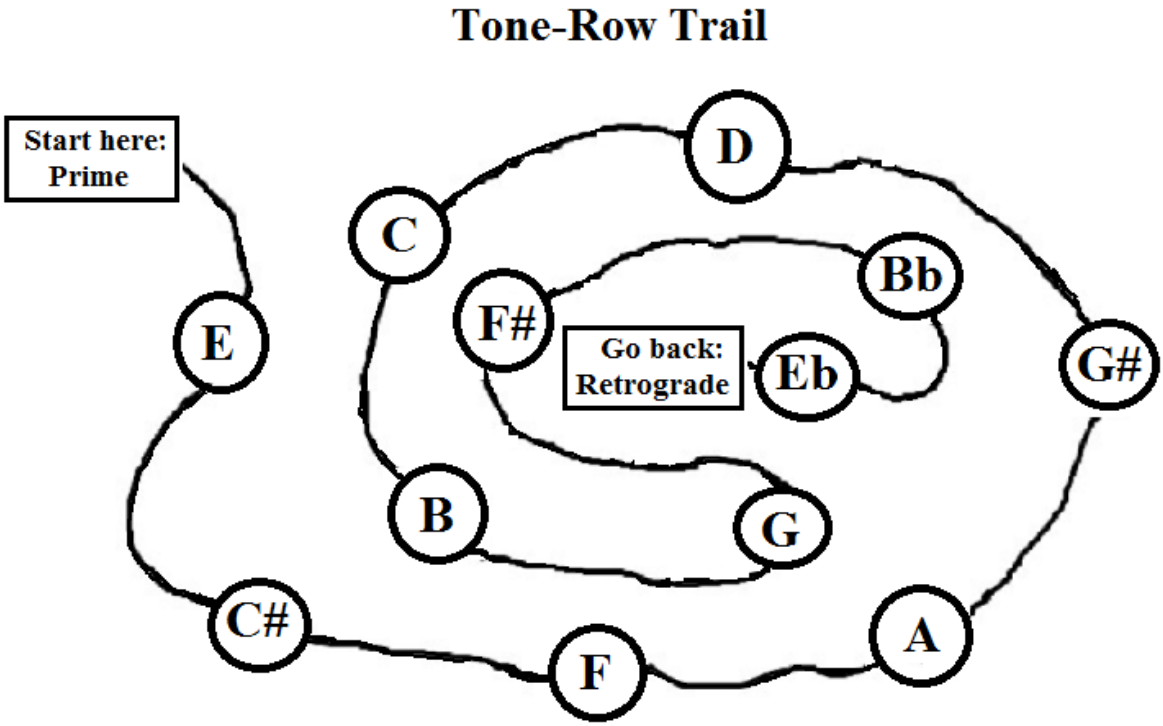
The Factory

Elizabeth A Nix



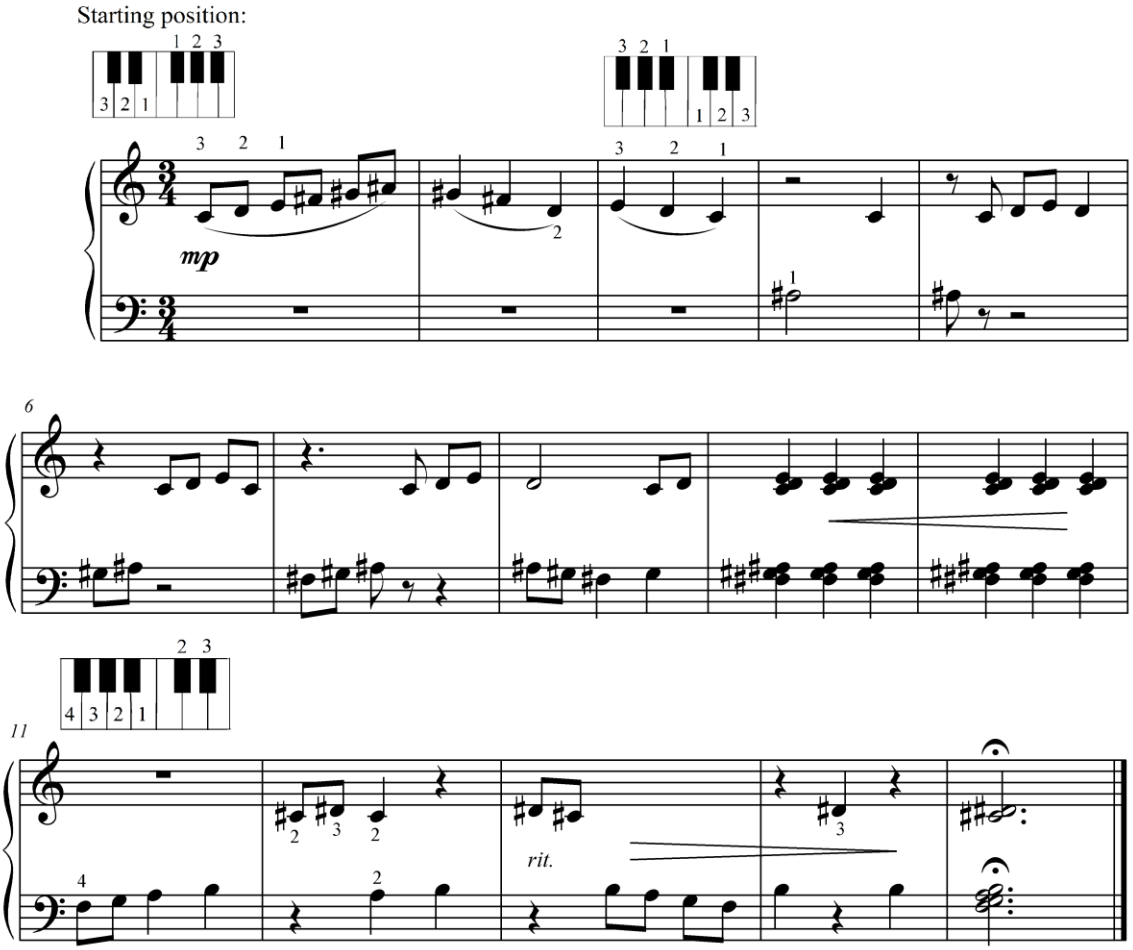
Level 2 Compositions

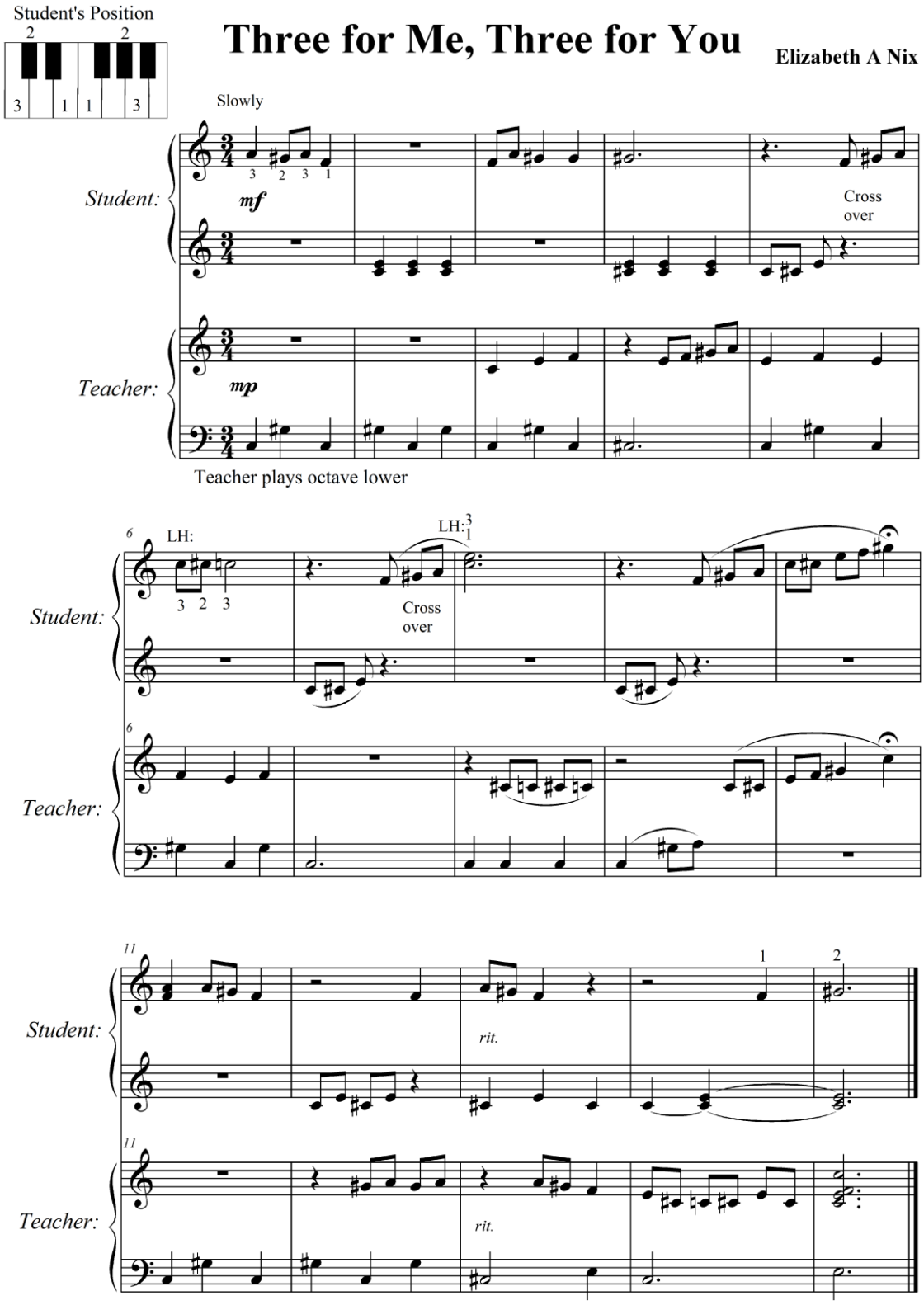




The Switch

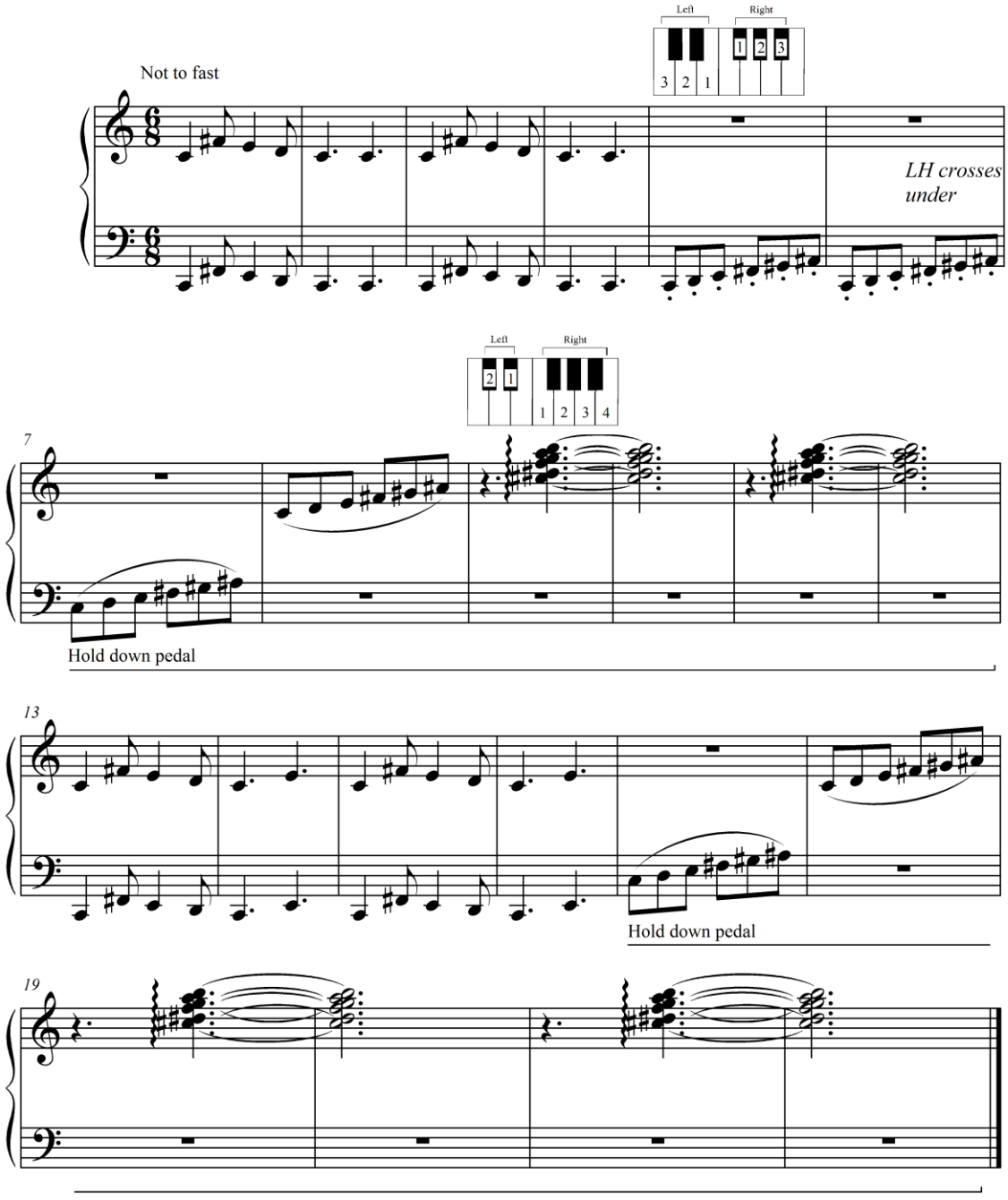
Elizabeth A Nix




Student's Position
Three for Me, Three for You
Elizabeth A Nix
Slowly
Student:
Teacher:
mf
mp
Cross over
Teacher plays octave lower
LH:
LH:
Cross over
rit.
rit.
1
2

Polar Bear on Ice

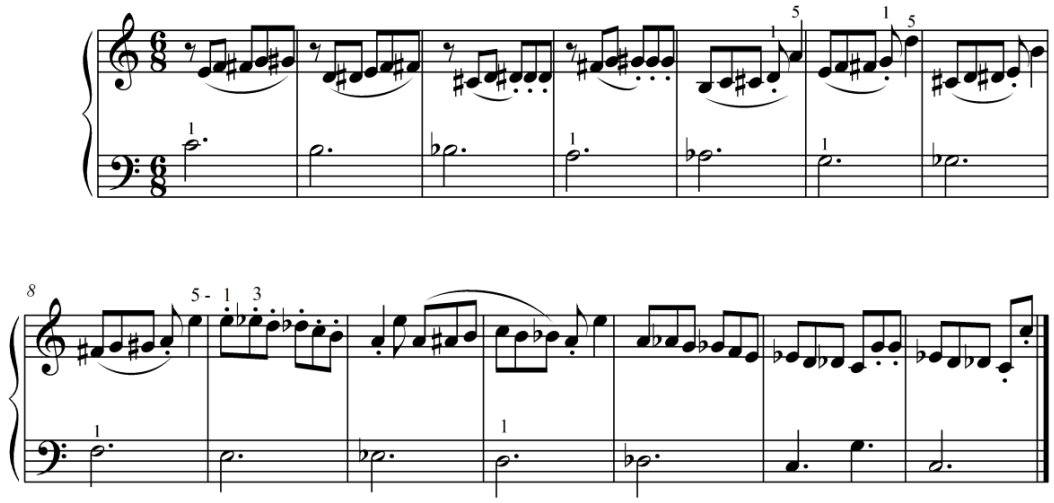
Elizabeth A Nix



Jumping Fish

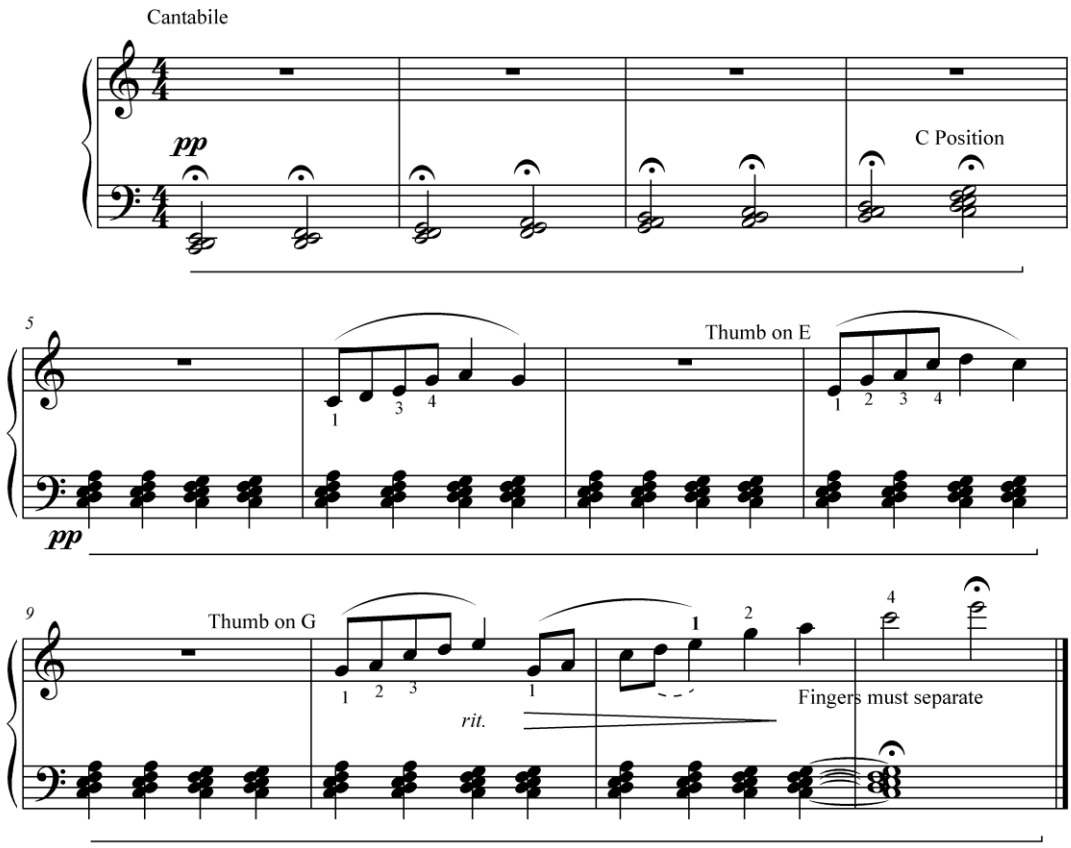
Exercises

Elizabeth A Nix



Growing Forest

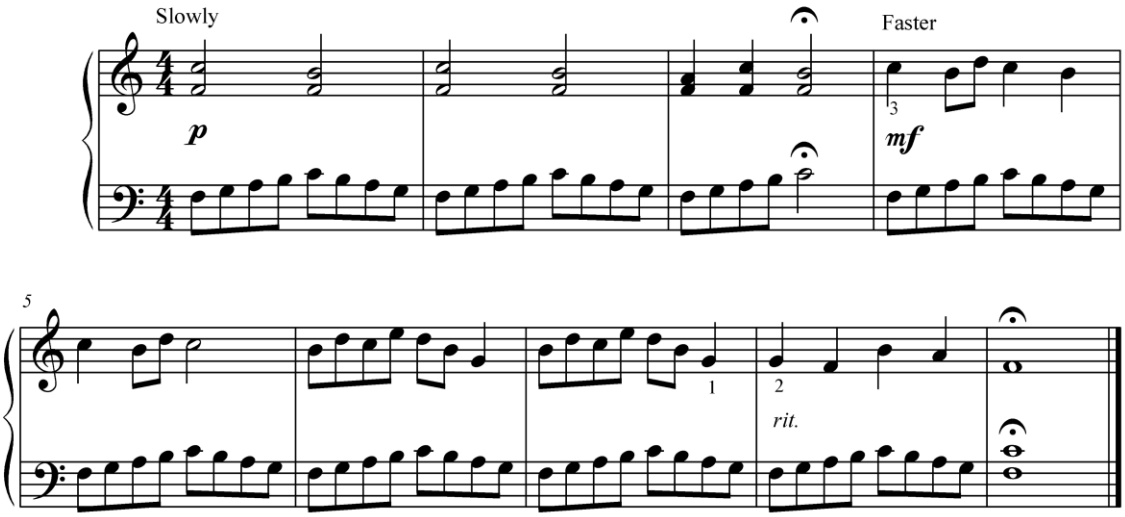
Elizabeth A Nix



Lydian Locust

on white keys

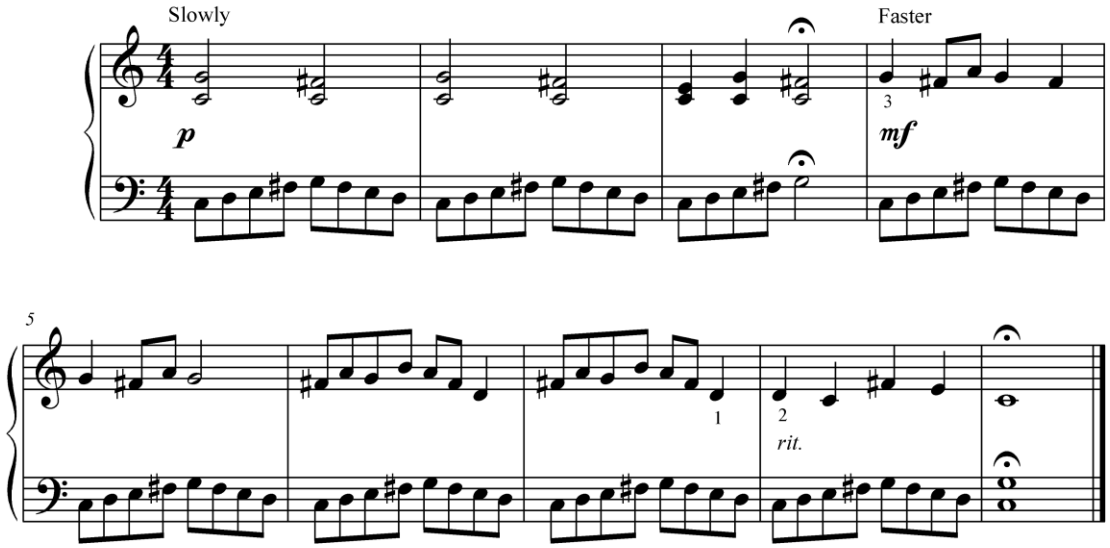
Elizabeth Nix



Lydian Locust

With F#

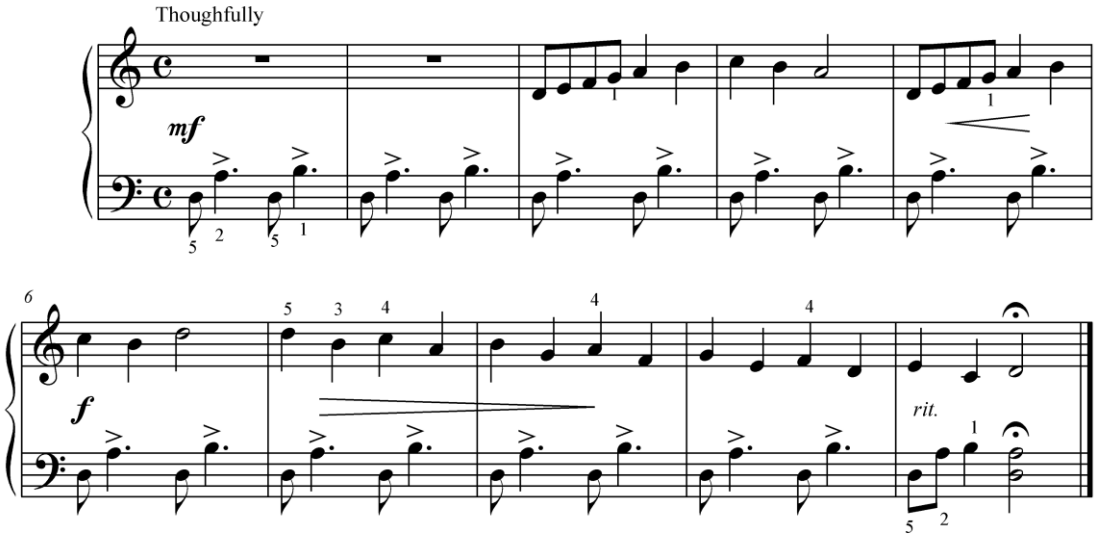
Elizabeth A Nix



My Day Was So Dorian

on white keys

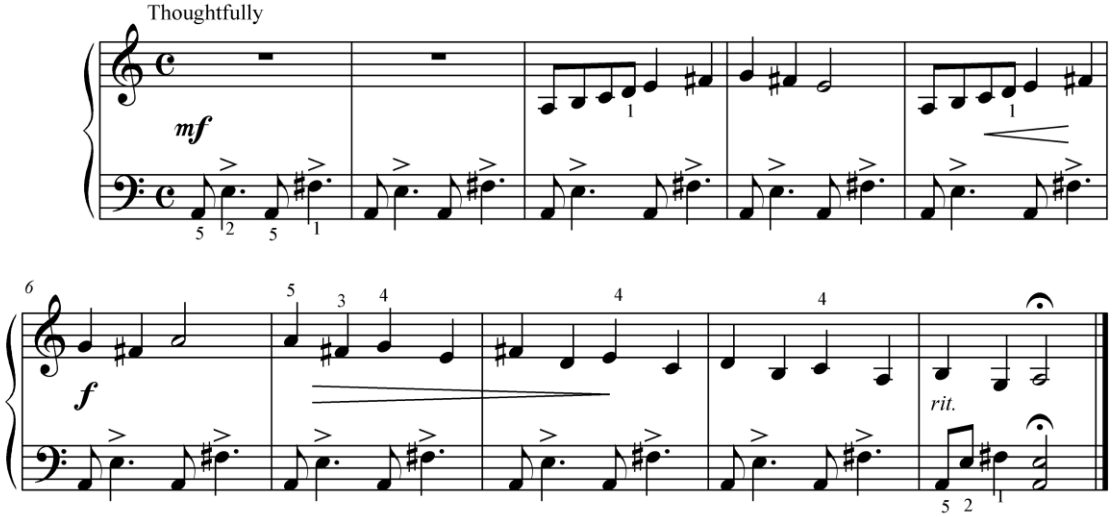
Elizabeth A Nix



My Day Was So Dorian

With F#

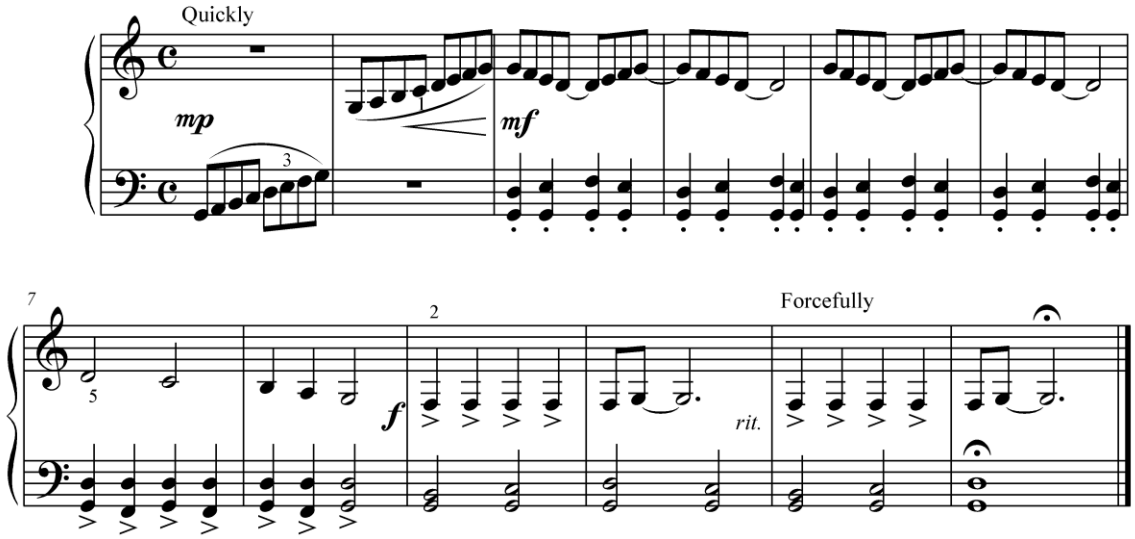
Elizabeth A Nix



Mixolydian Maniac

on white keys

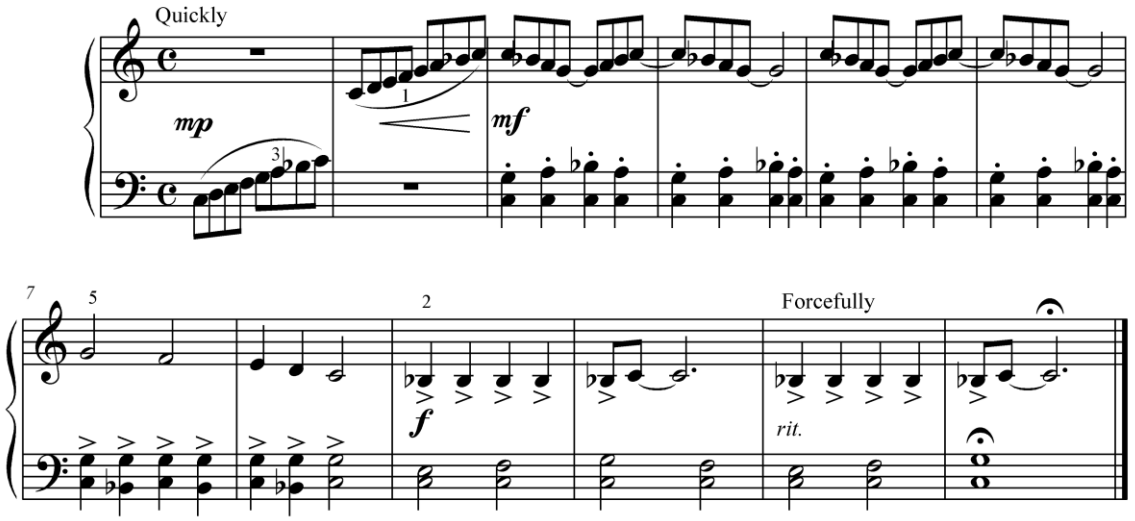
Elizabeth A Nix



Mixolydian Maniac

With Bb

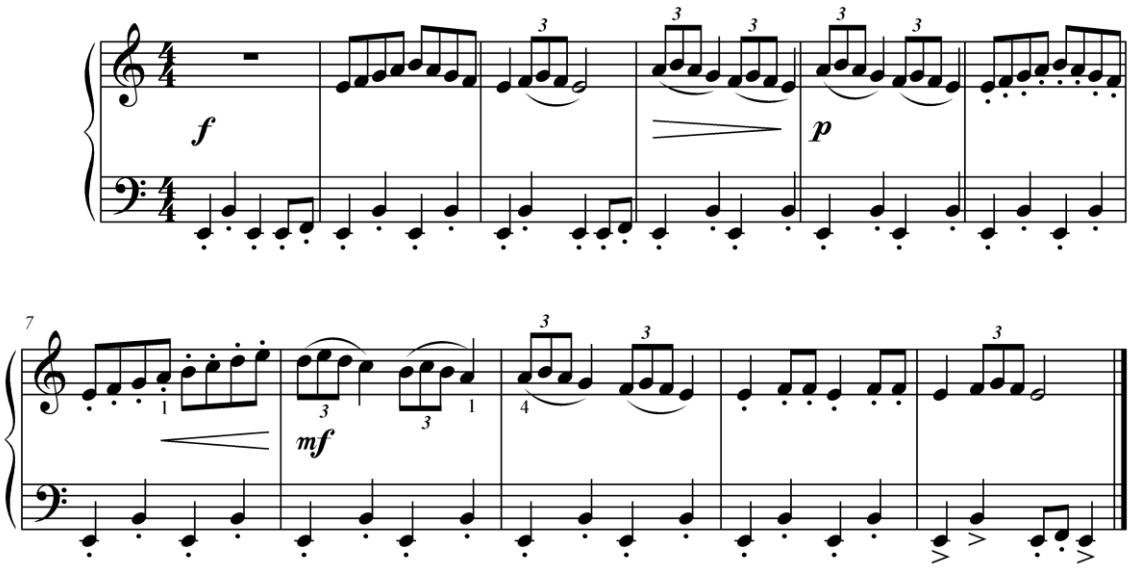
Elizabeth A Nix



Phrygian Pharaoh

on white keys

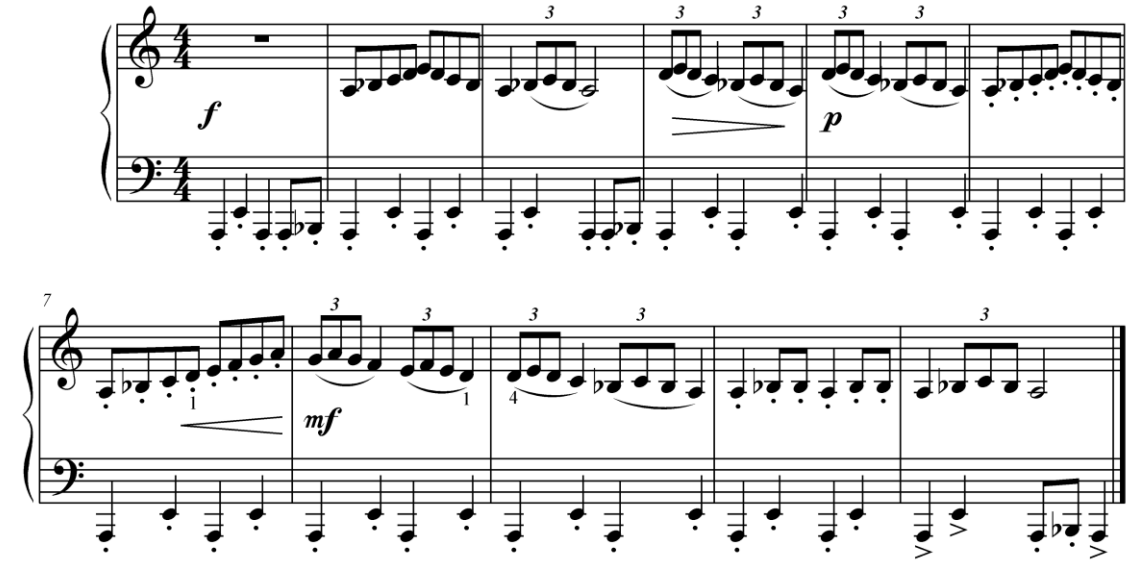
Elizabeth A. Nix



Phrygian Pharaoh

With Bb

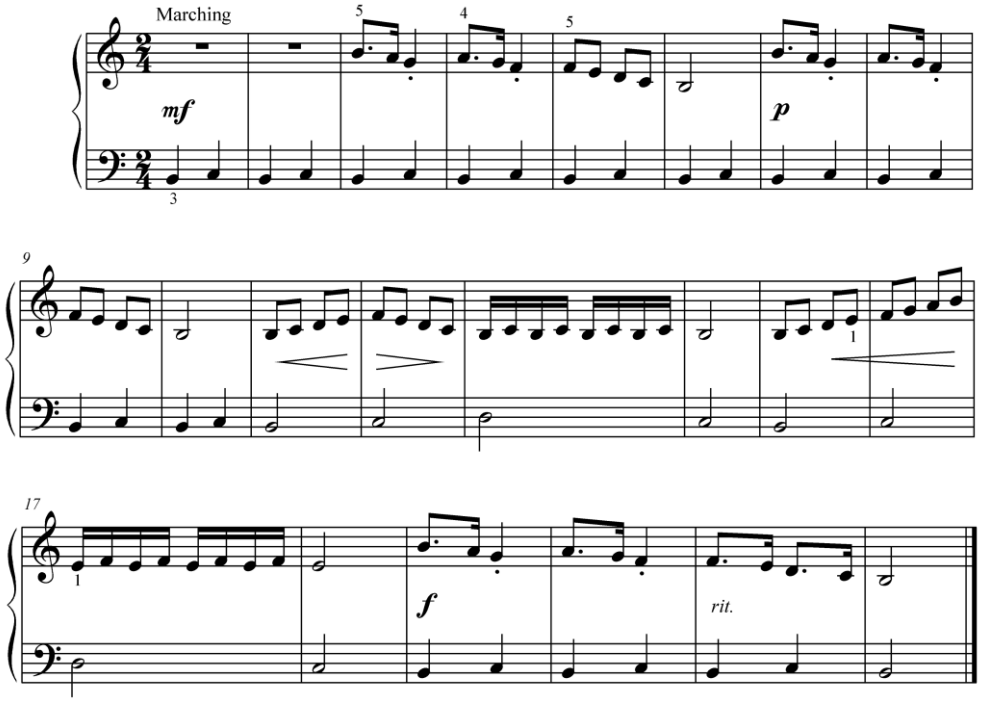
Elizabeth A Nix



Locrian Festival

on white keys

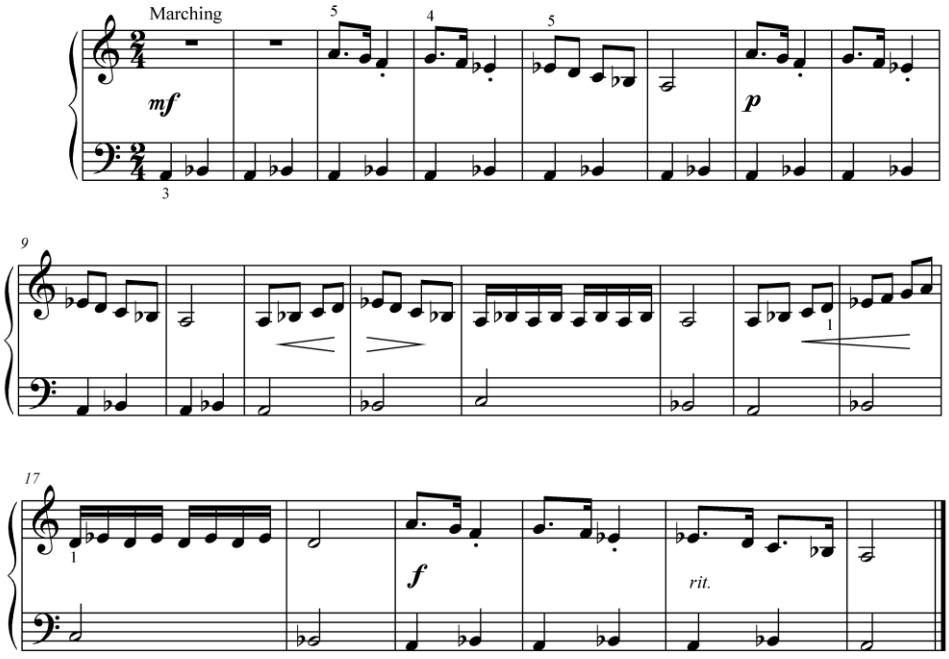
Elizabeth A Nix



Locrian Festival

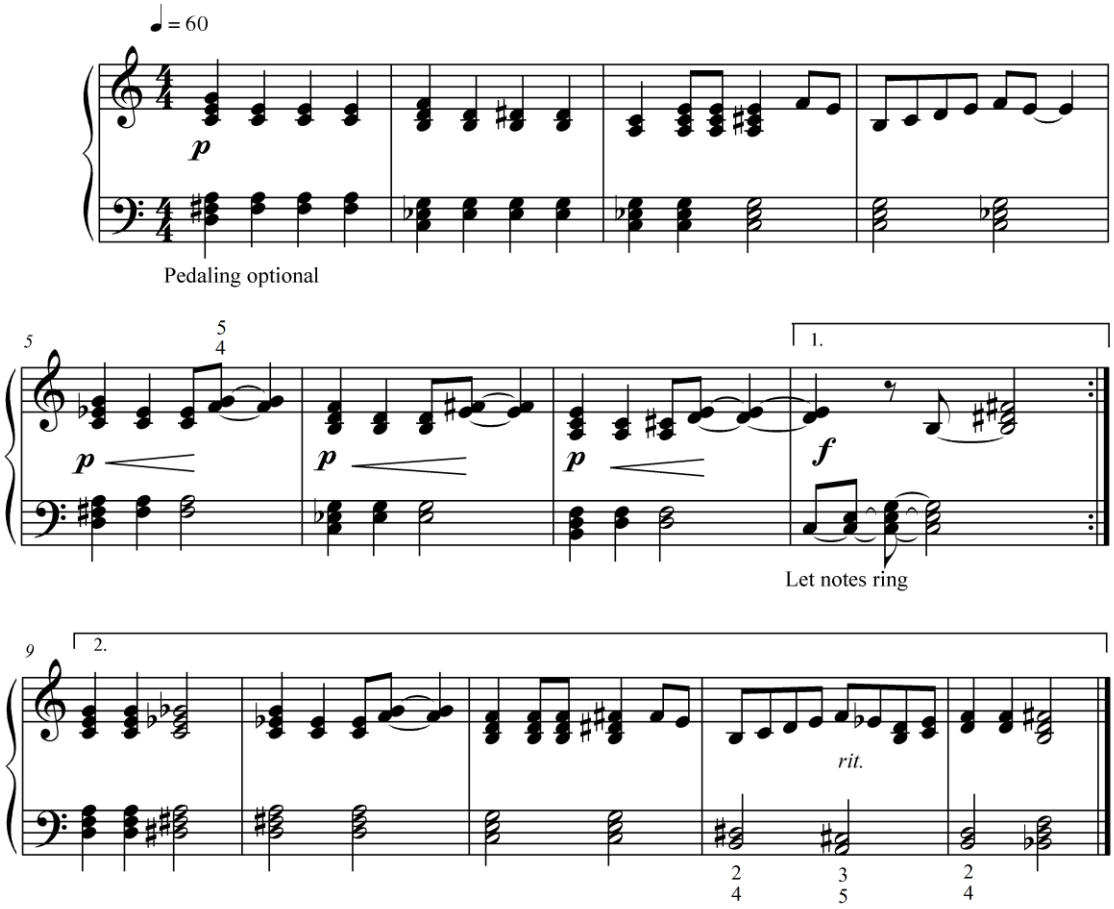
With Bb & Eb

Elizabeth A Nix



Snooze Button, Again

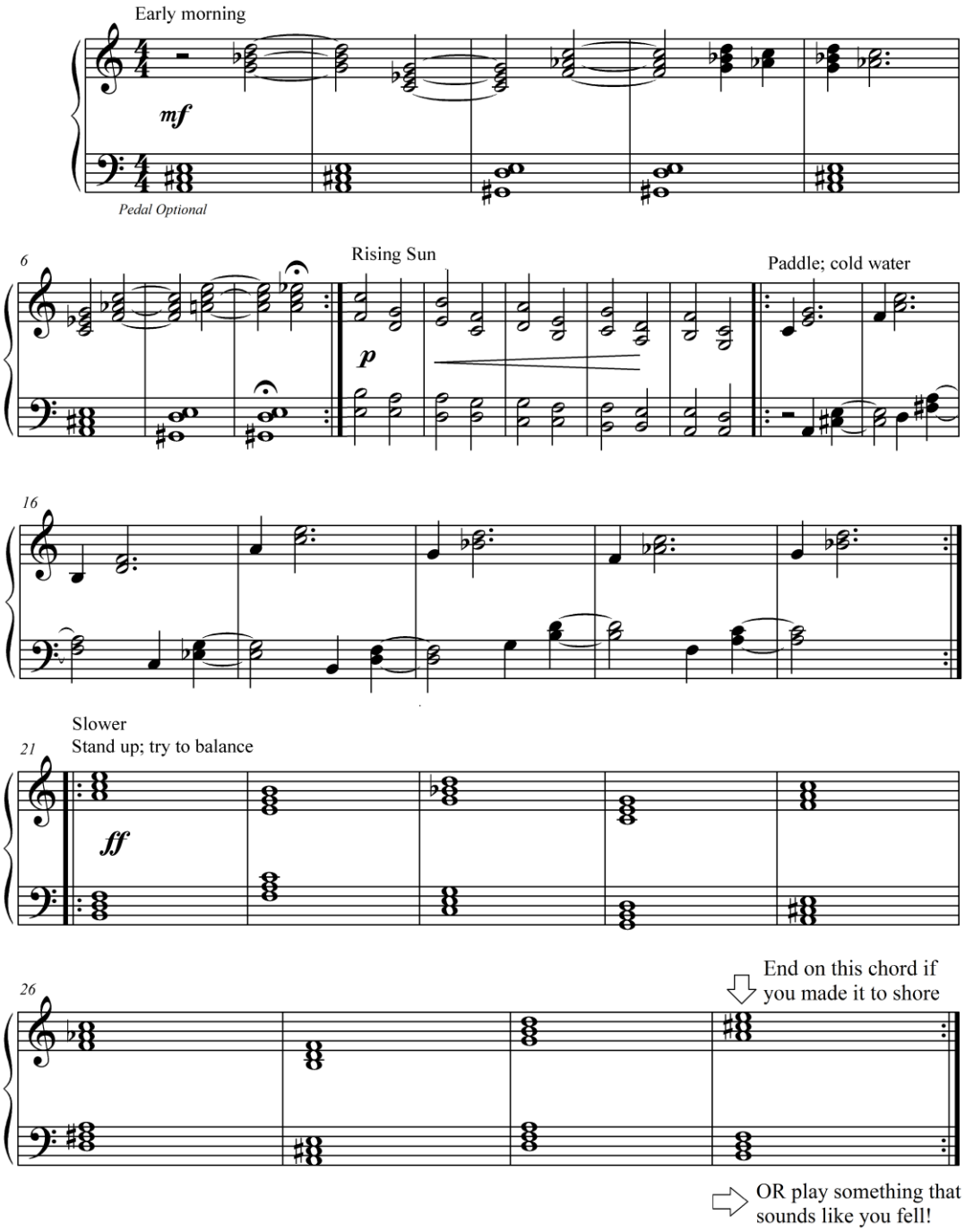
Elizabeth A Nix



Surfing Lessons

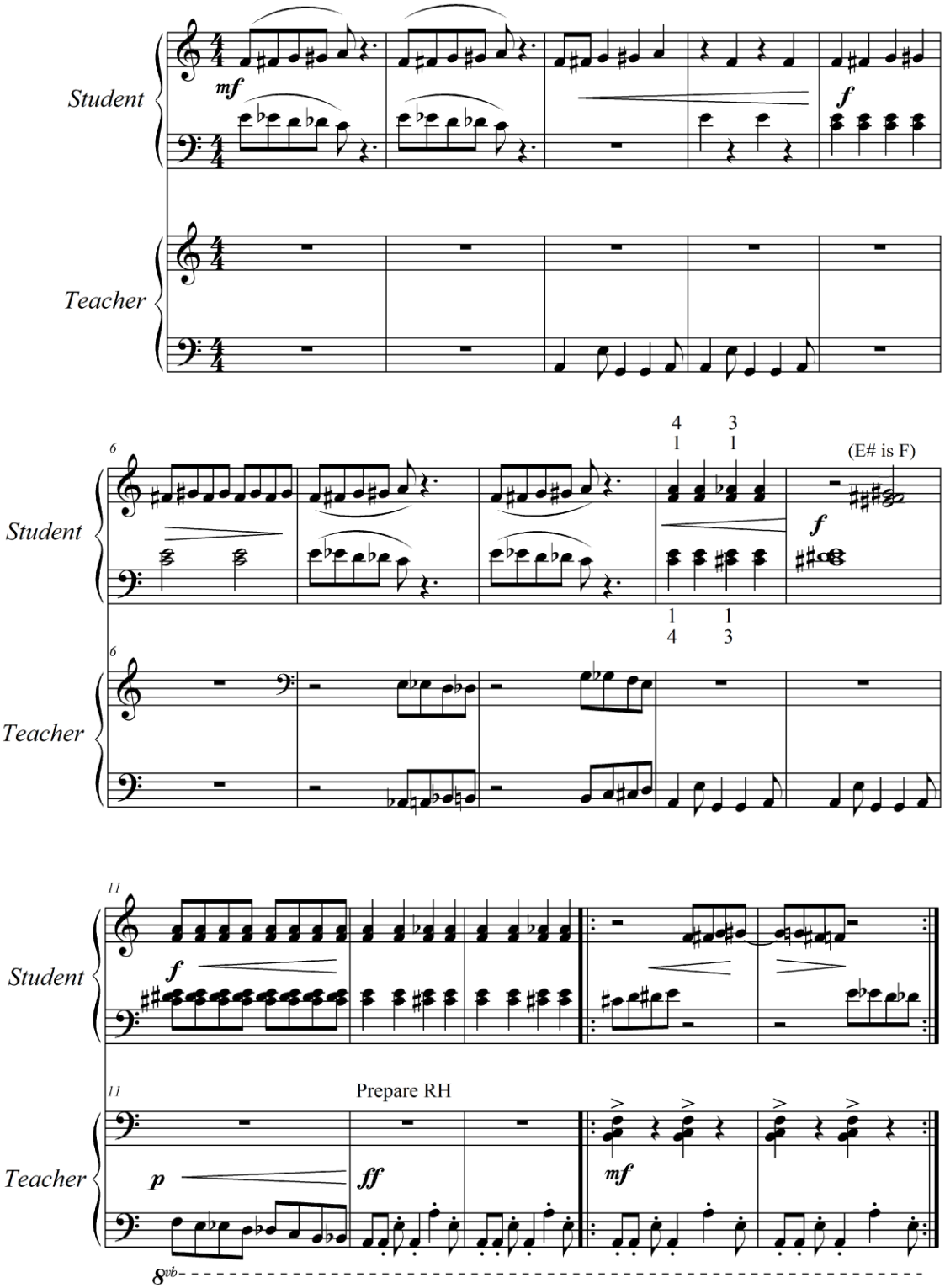
Exercise to Locate Chords Quickly

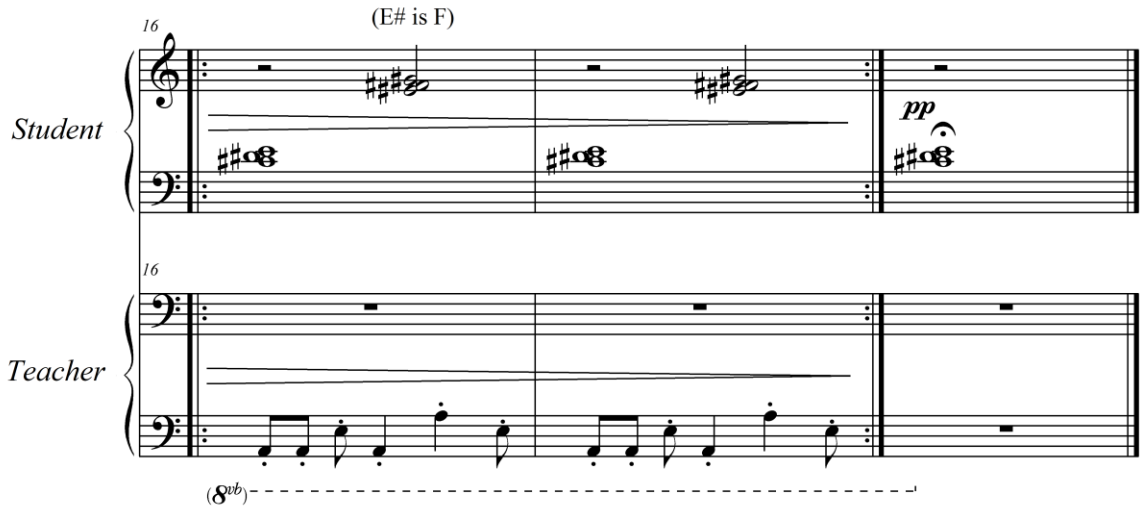
Elizabeth A Nix



Rock, Chromatic, and Roll

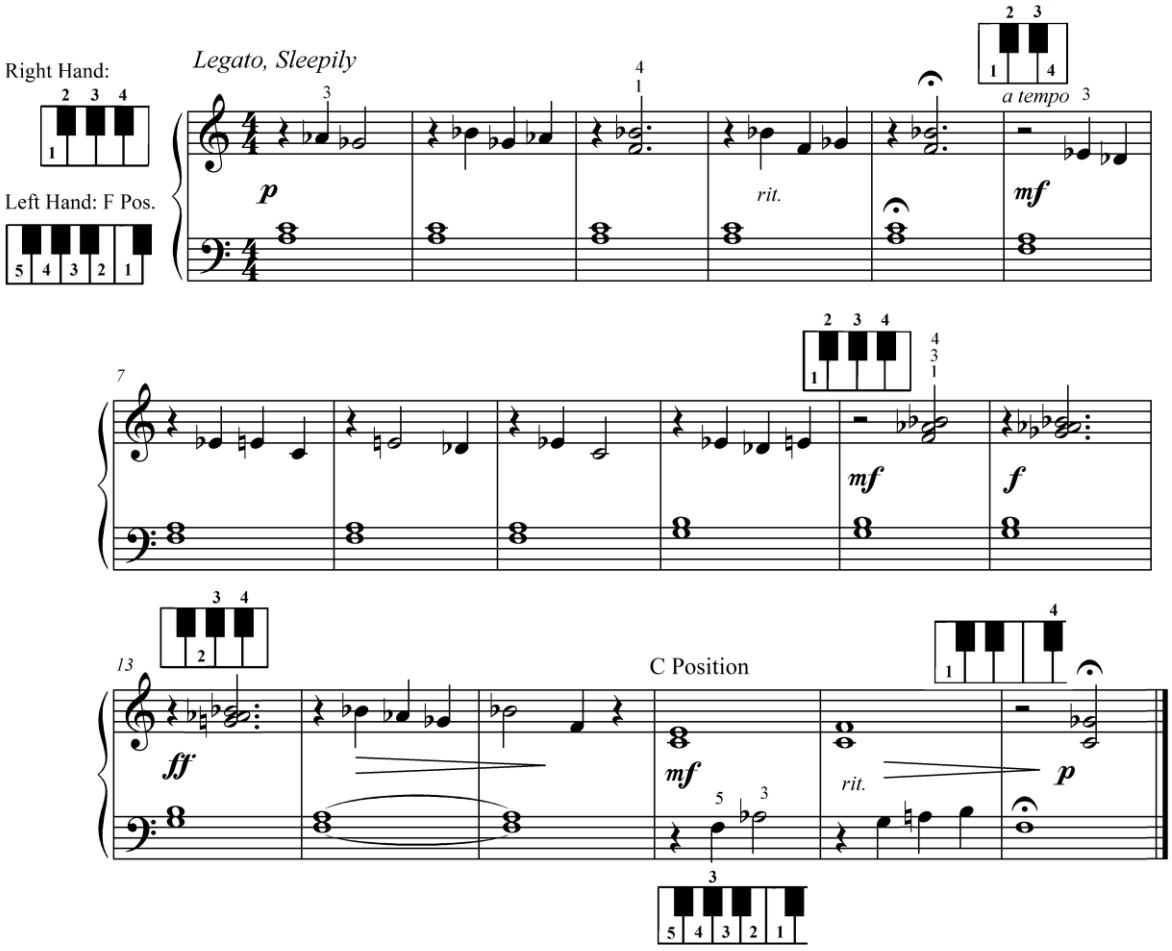
Elizabeth A Nix





The Dream

Elizabeth A Nix

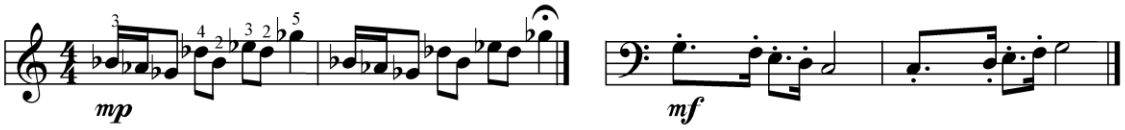


Fiona Relaxes in Tall Grass

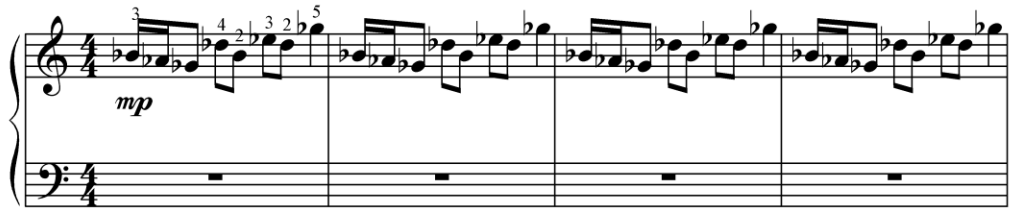
Elizabeth A Nix

Fiona Daydreaming
(Right hand)

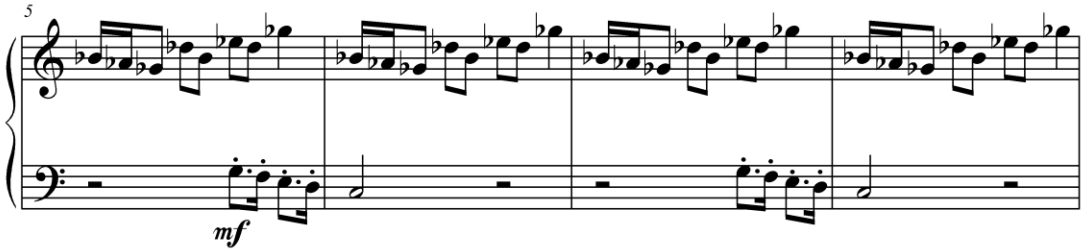
Gert Interupting
(Left hand)

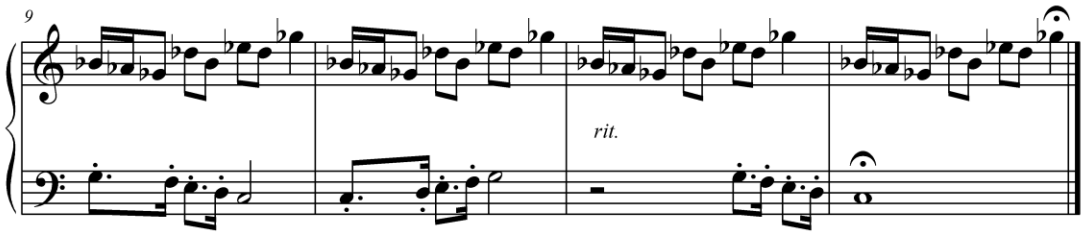


Legato



Hold Pedal Down



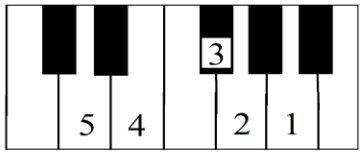


Fiona Ruins Gert's Walk

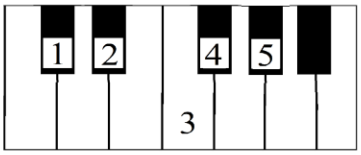
Elizabeth A Nix

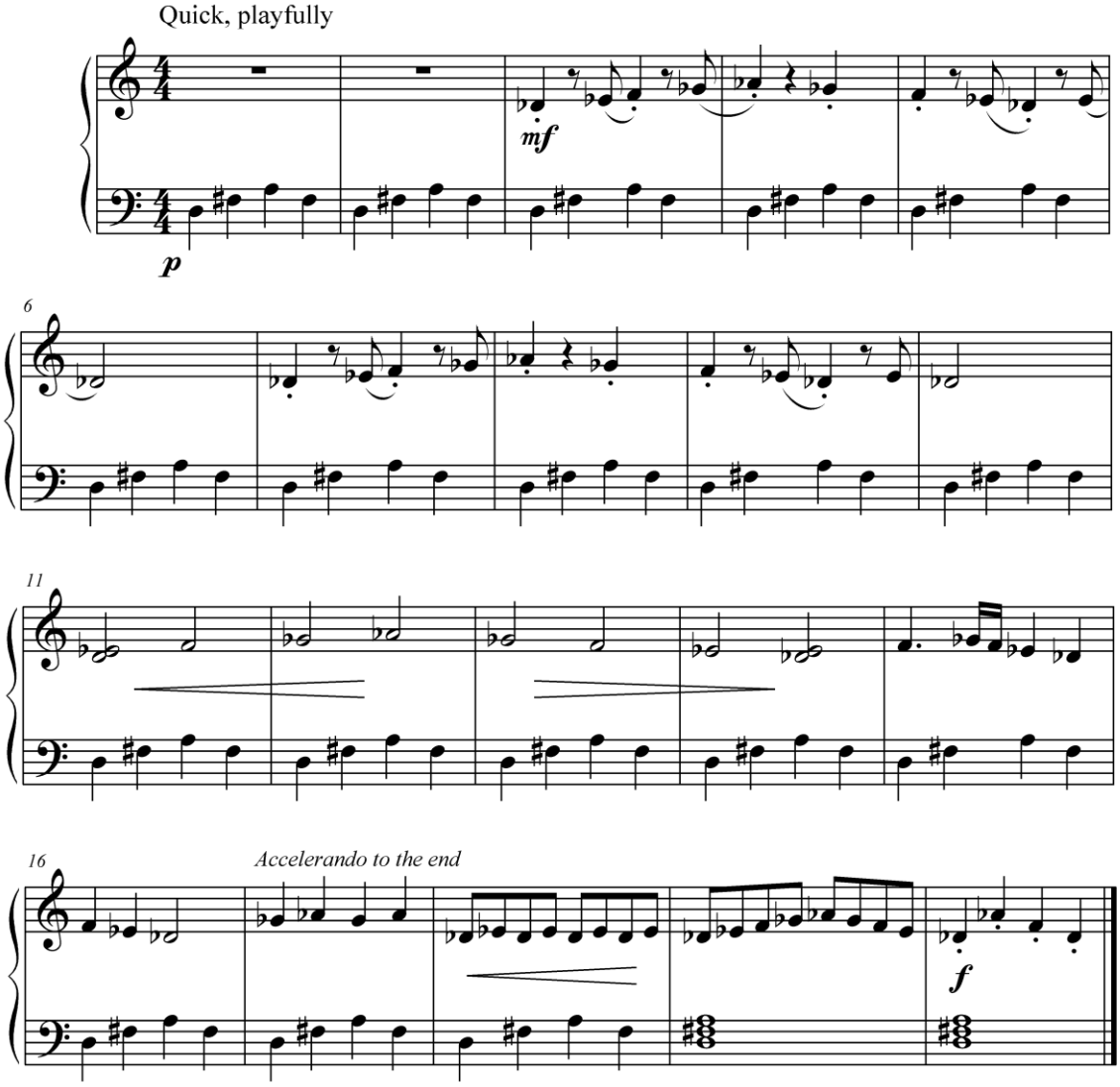
Be sure to play each hand seperately before playing them together.

Left hand position



Right hand position

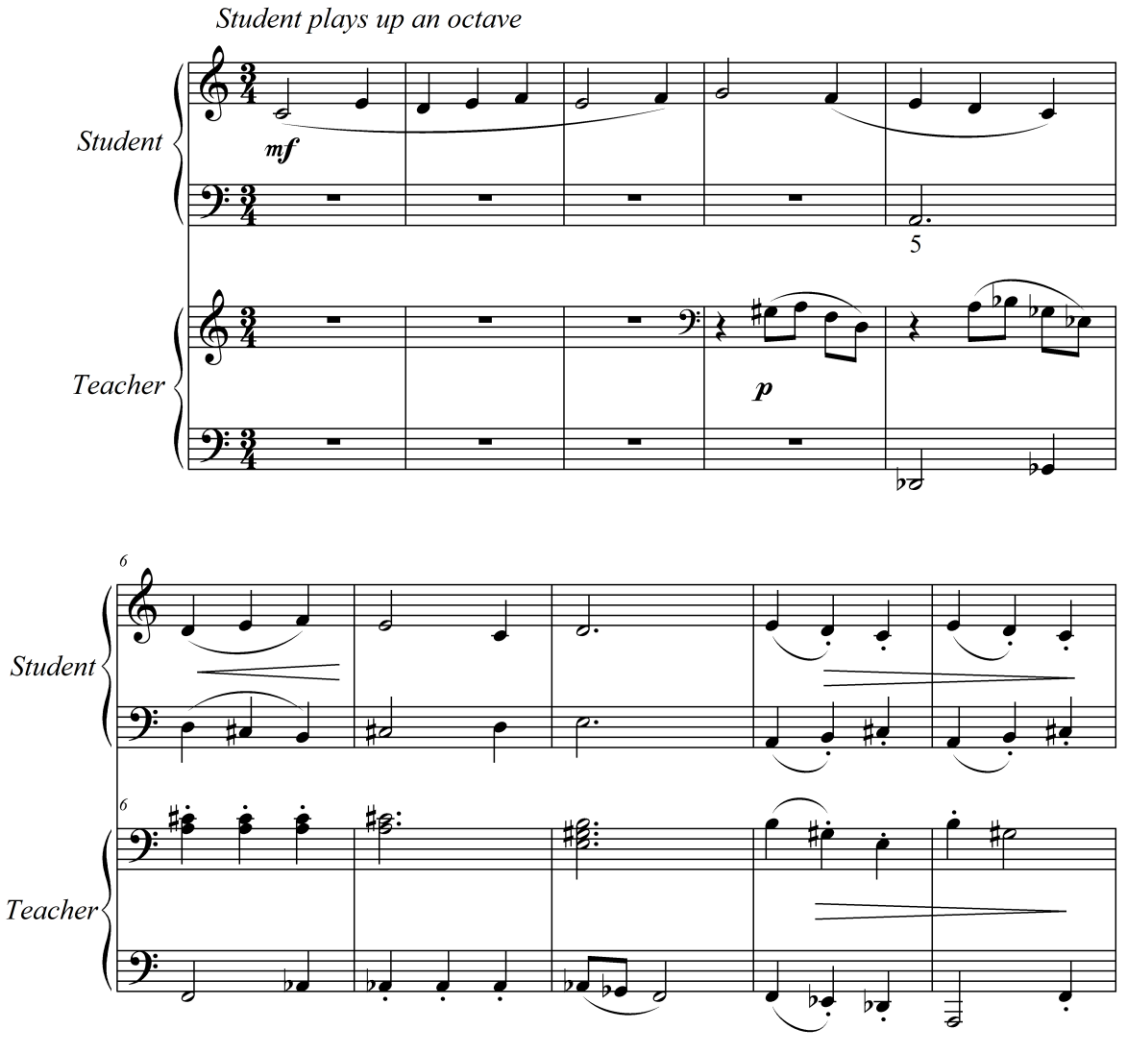


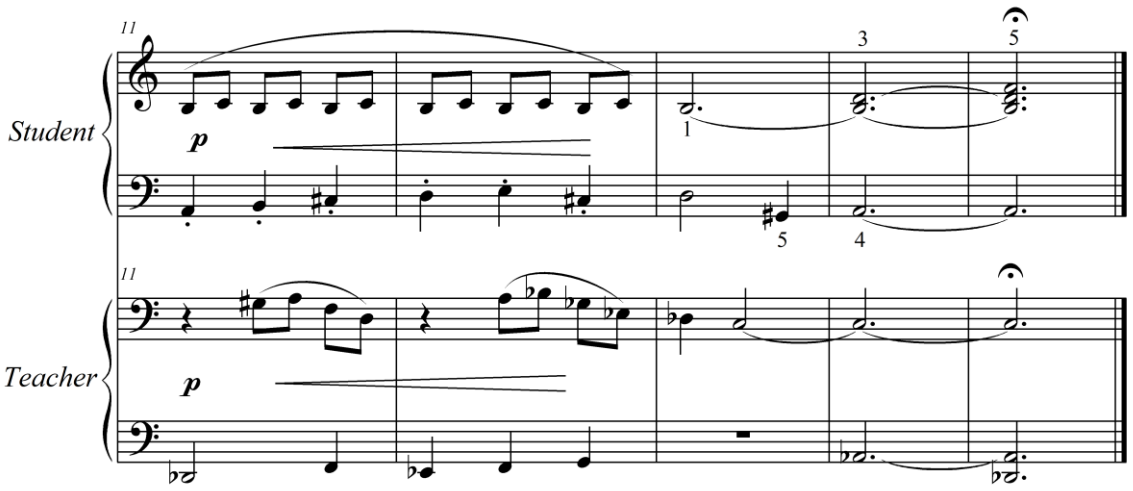


Where Are We?

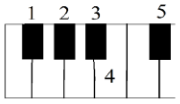
Elizabeth A Nix

A polytonal duet





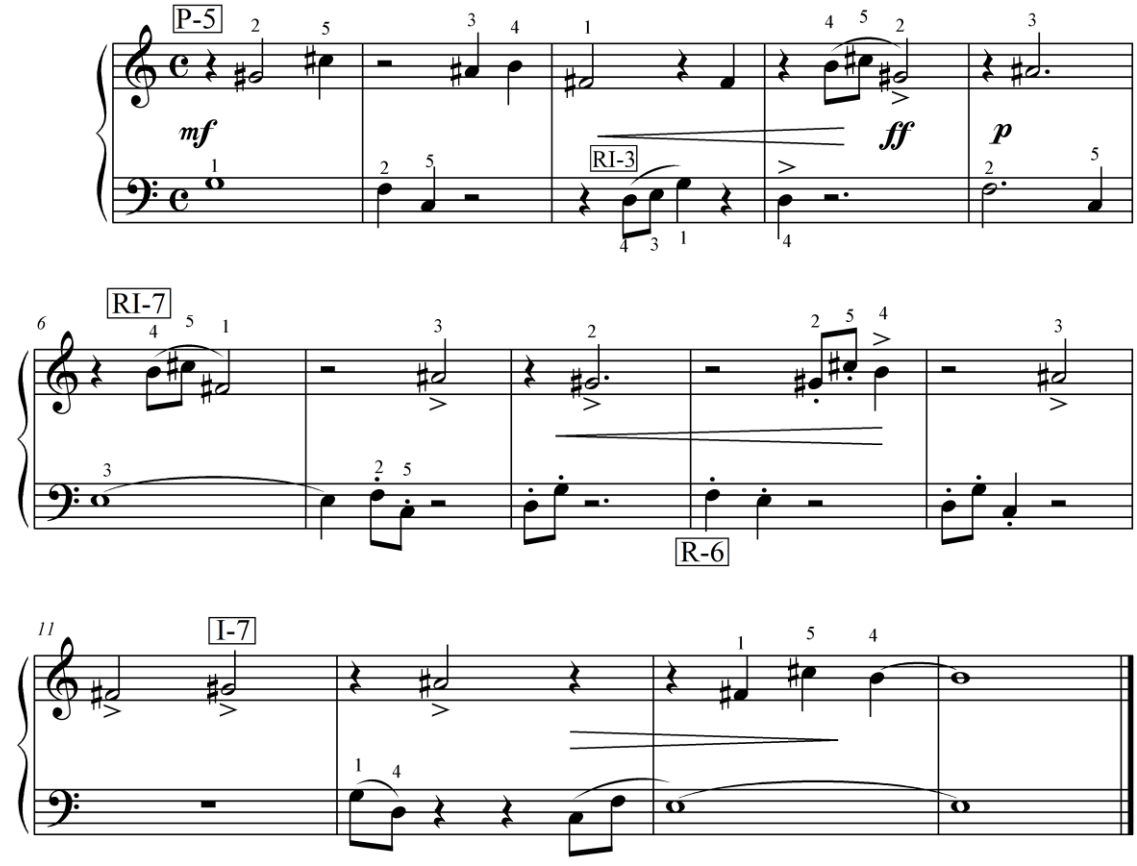
Right Hand:



The Equation

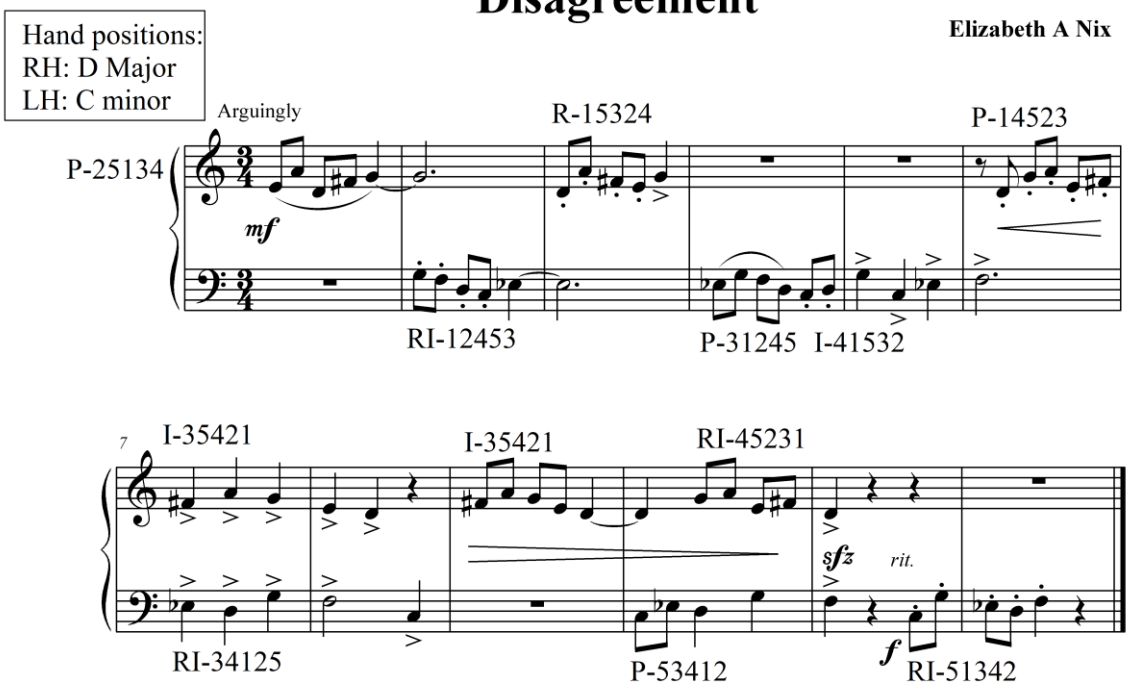
Left Hand: C Position

Elizabeth A Nix



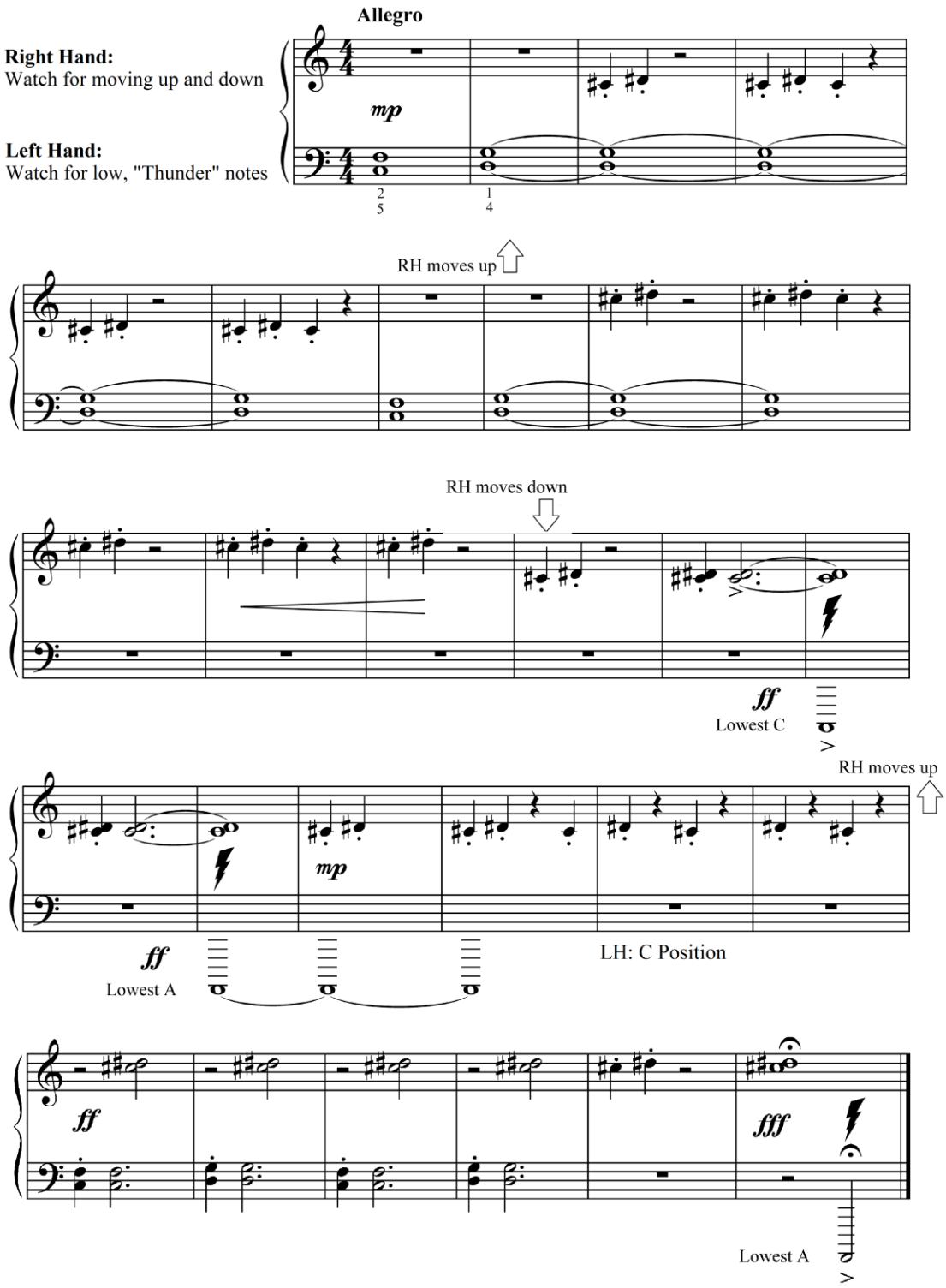
Disagreement

Elizabeth A Nix



Low-Note Thunder and Lightning

Elizabeth A Nix



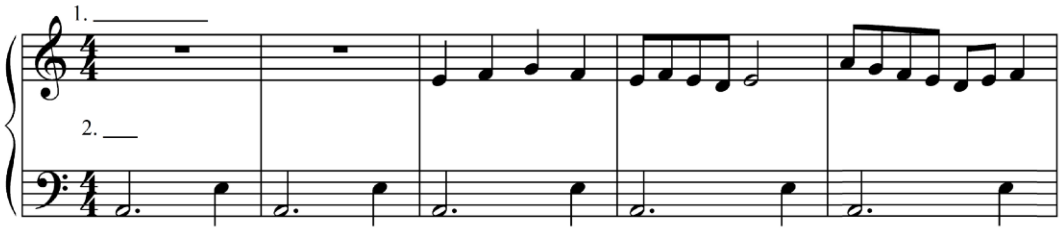
Coin Flip- How should I play this?

Elizabeth A. Nix

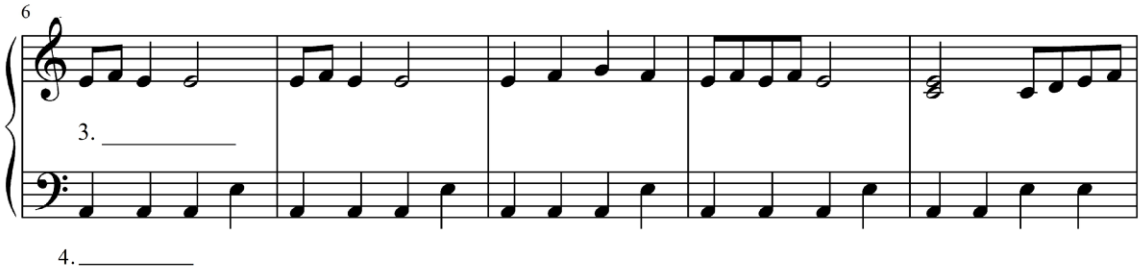
Instructions:

-Flip a coin for each of the 5 numbered points.
-Use the dynamic, style, and ending chosen by chance.
-Mark each answer with a pencil so it can be erased for future performances.

1. Opening measures- Heads: *Legato* Tails: *Staccato*
2. Opening dynamic- Heads: Softly - *p* Tails: Loudly - *f*

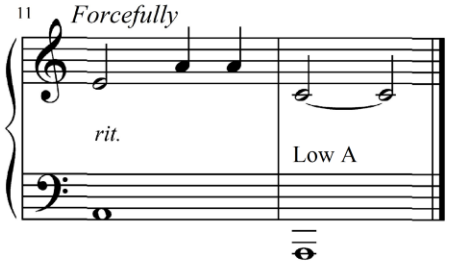


3. Measures 6-10- Heads: *Crescendo* Tails: *Diminuendo*
4. Measures 6-10- Heads: No pedal Tails: Hold down the pedal

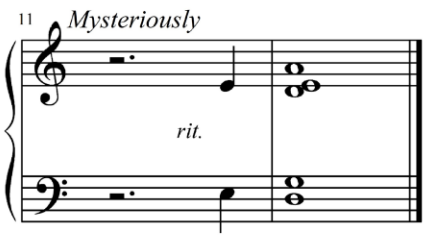


5. Flip to determine which ending to play and circle it - Heads: Ending A Tails: Ending B

Ending A



Ending B



Instructions for Preparation:

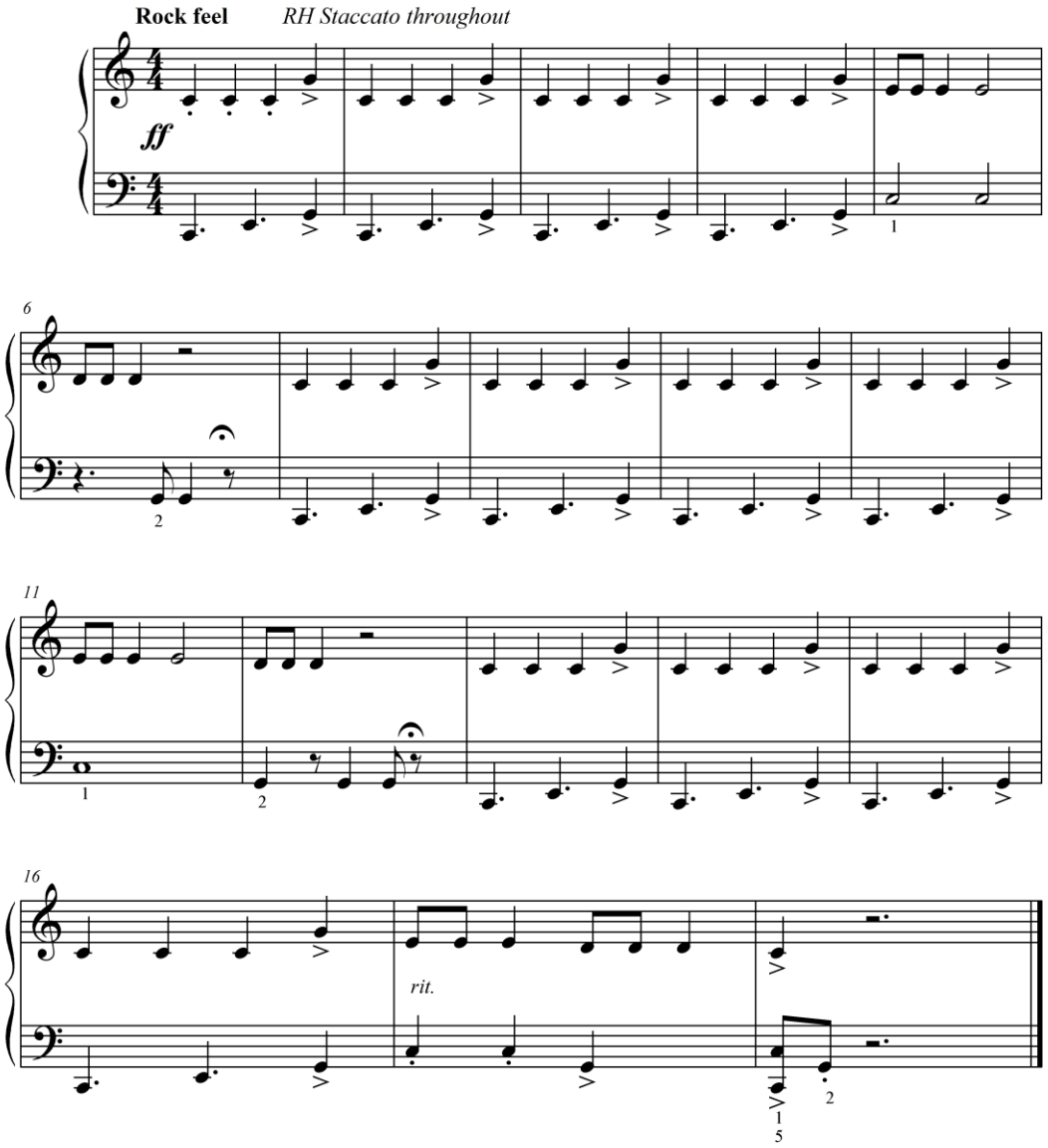
C2 & E2- tie erasers to the strings using pipe cleaners, balance a small/thick book on them.

G2- Tie two spoons to this string using two pipe cleaners, laying as much of the spoons on the string as possible. -Placement should be in the middle of the string.

C3, D4 & E4- tie a clothes pin to each one of these pitches using two pipe cleaners each. -Keep an eye on these as they like to move.

Terrible Tamborine Player

Elizabeth A Nix



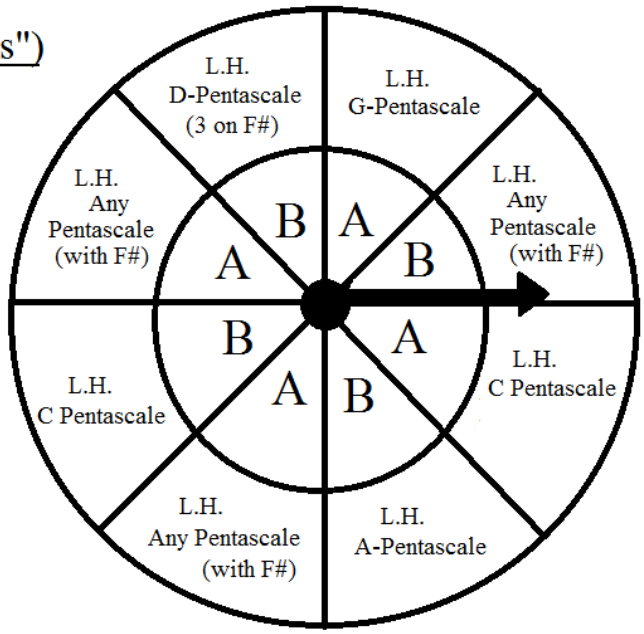
Aleatoric Music Chart for ("Bells")

Instructions:

Spin the Dial to determine which ending to play, and where to put your left hand!

Inner Circle: After the fermata: ending A or B

Outer Circle: Left hand position, only dotted half notes are to be used. You can choose any notes from the position chosen by chance.



Bell Choir

for Aleatoric Music chart

Elizabeth A Nix

Instructions:

Spin the needle on the Aleatoric Music Chart to determine which scale to use in the left hand.

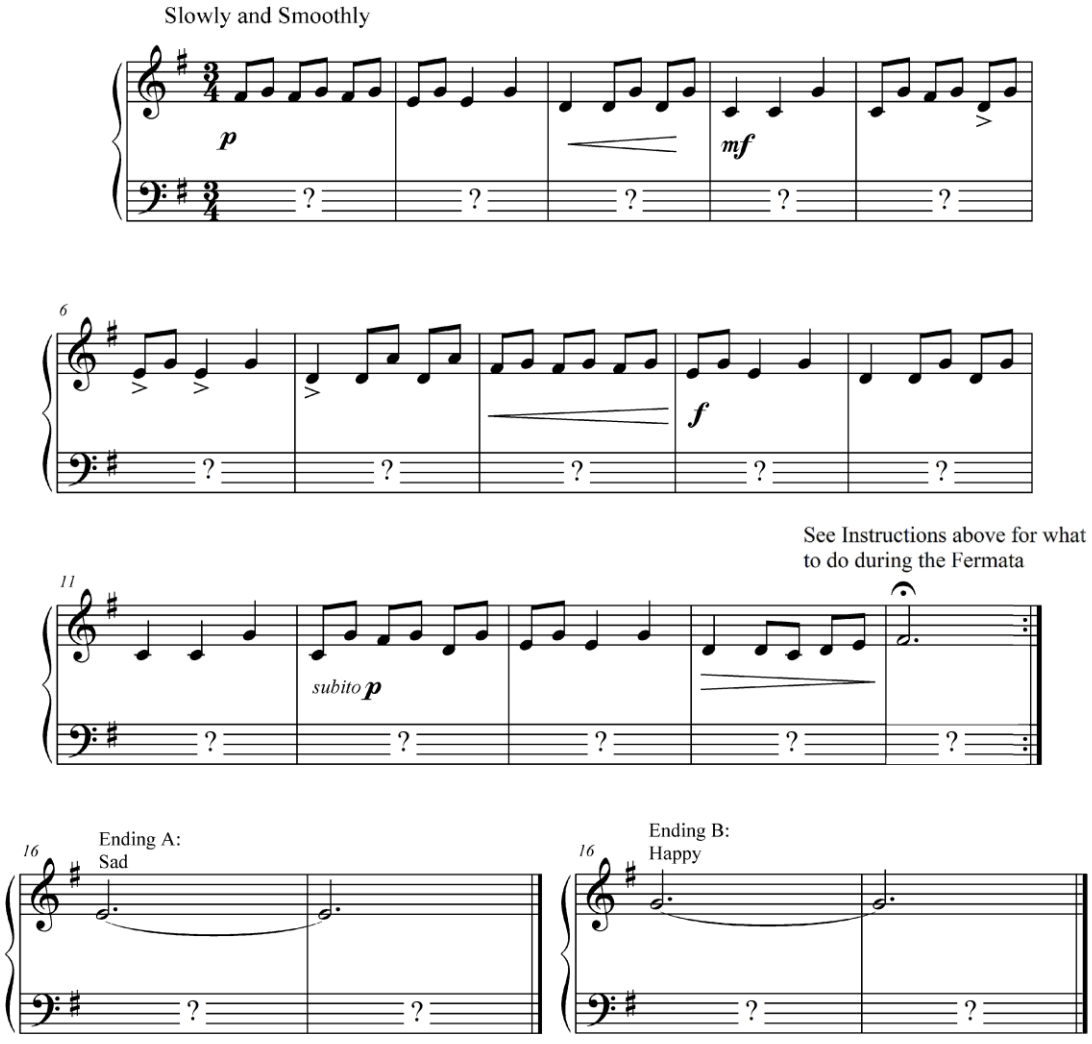
The left hand should play ONLY dotted half notes with no skips! You can start on any note, can move up or down, but you must NOT skip any notes!

Intructions during Fermata:

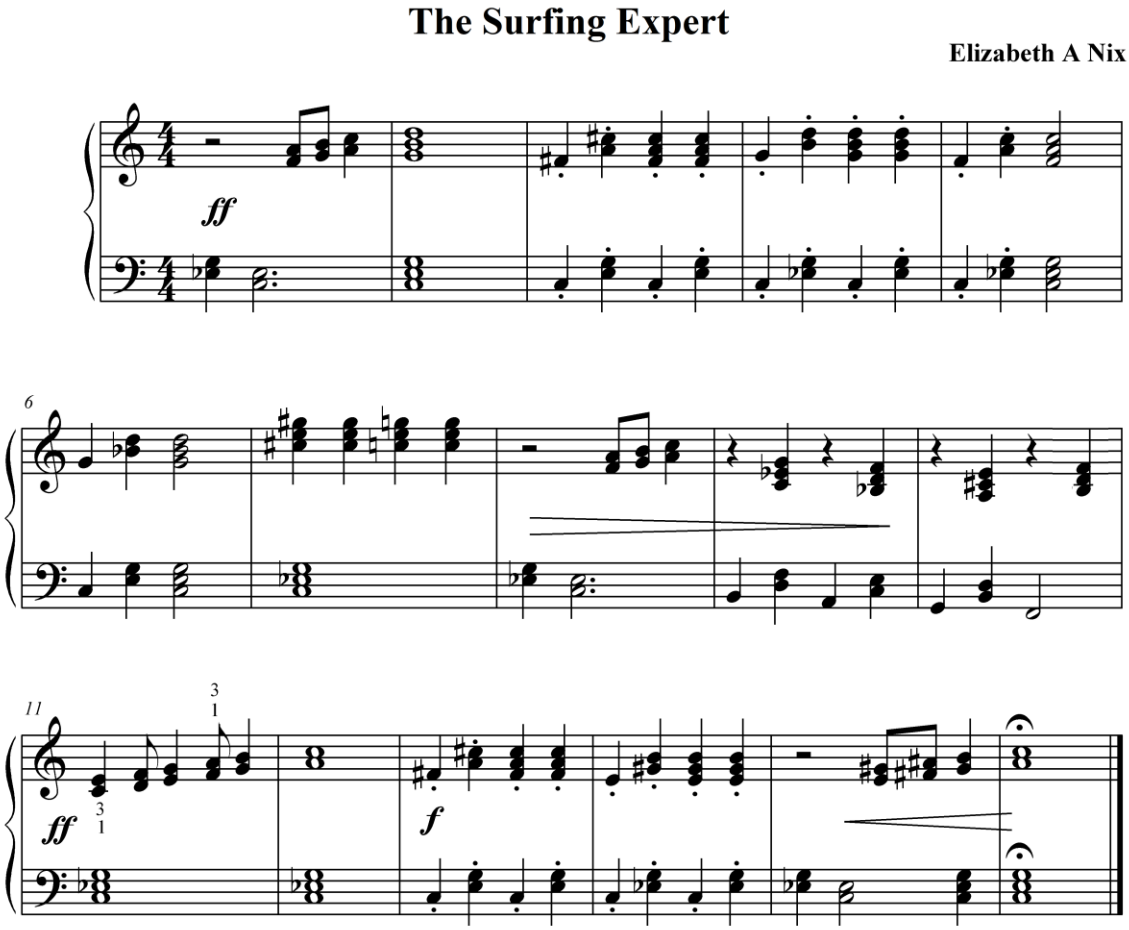
This piece can be repeated as many times as you like.

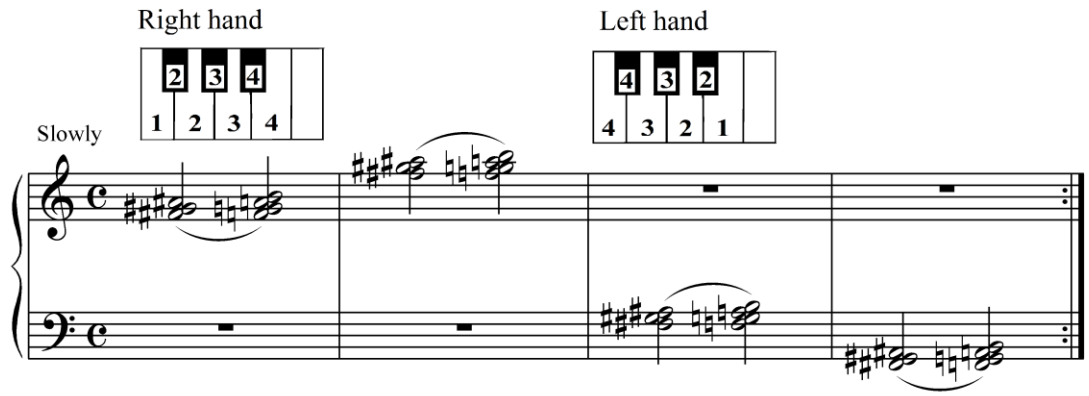
If you are repeating, during the fermata, spin for which position to use next.

When you are finished, during the fermata, spin for which ending to use.



Level 3 Compositions





Trampoline

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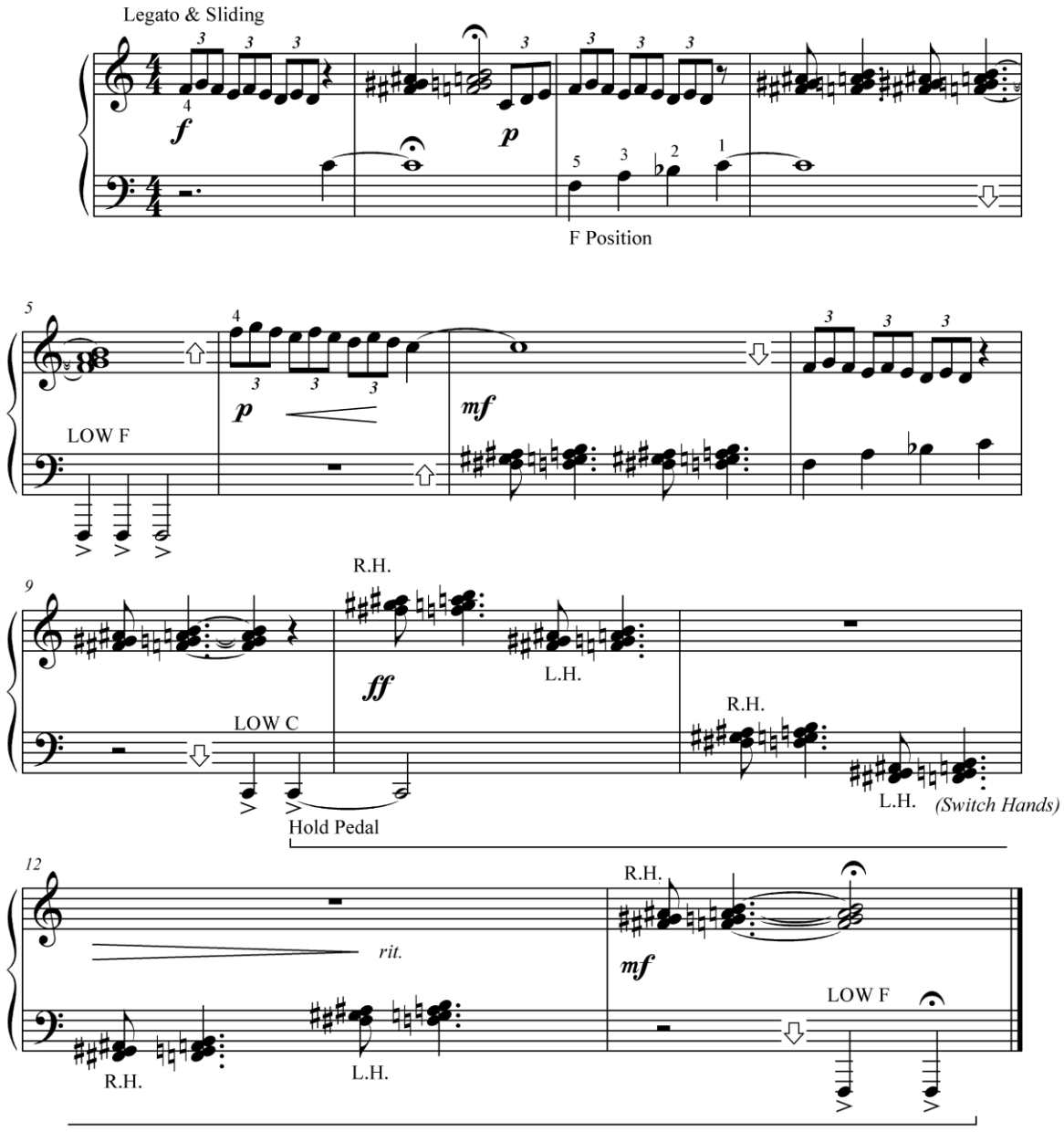

World Travels

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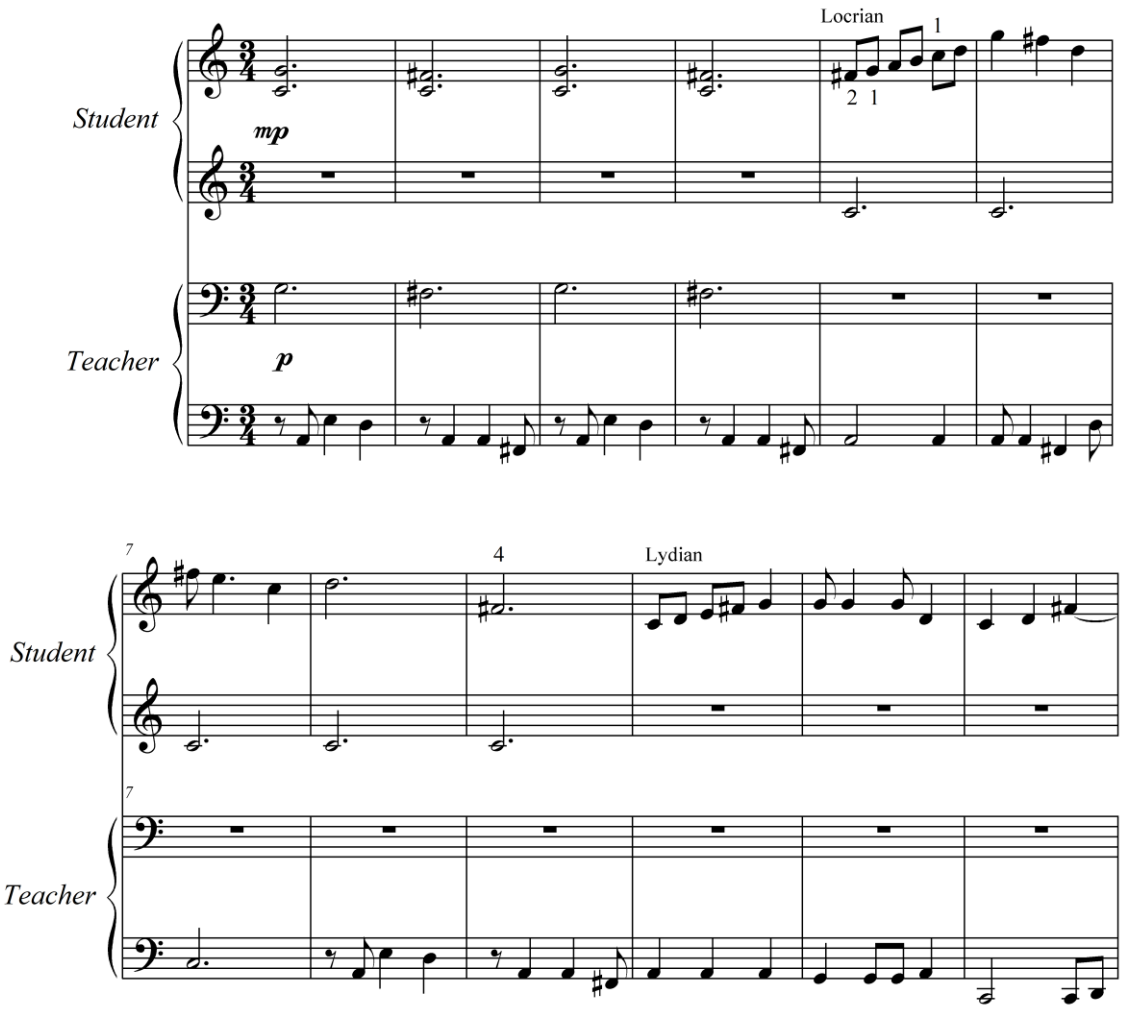
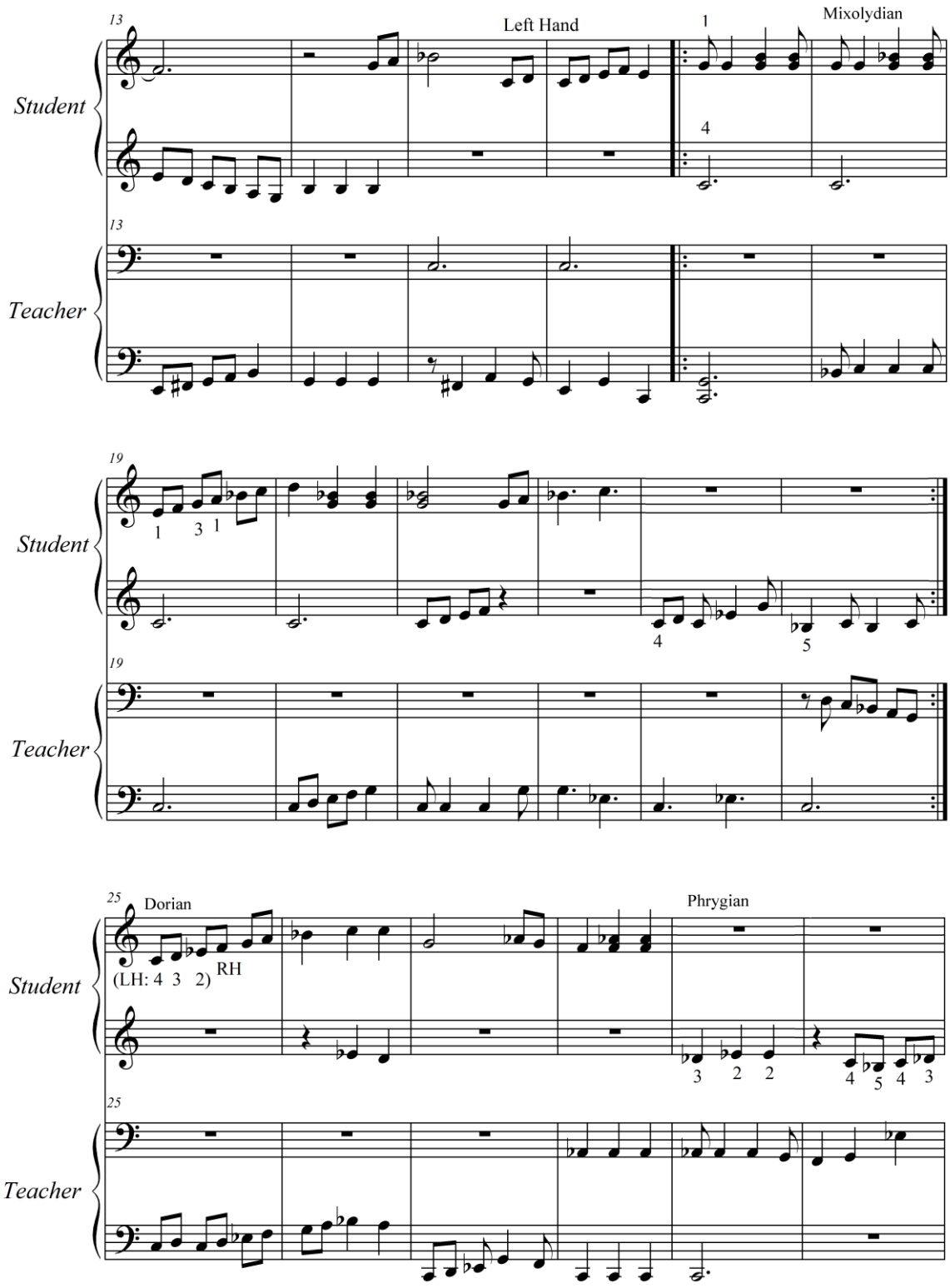
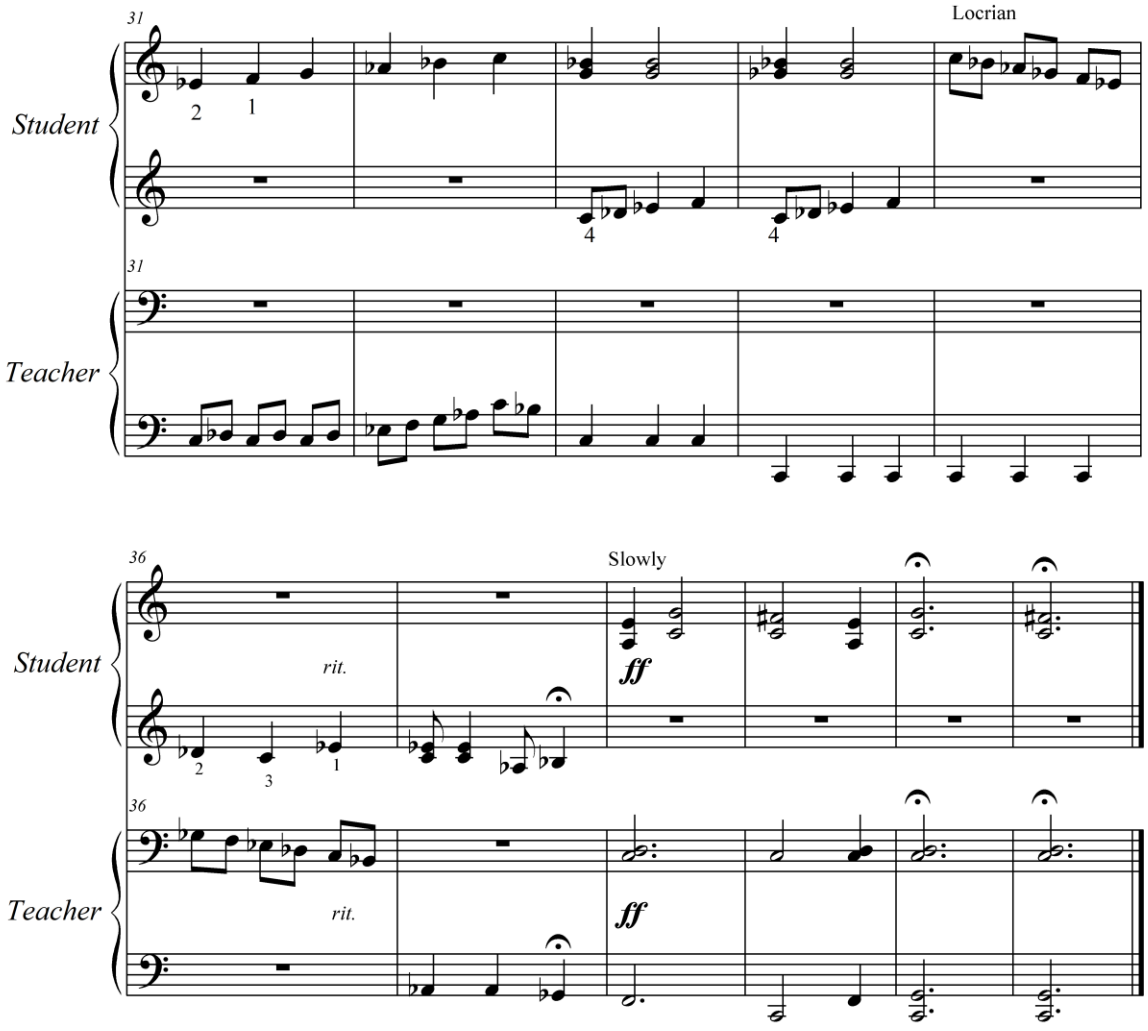


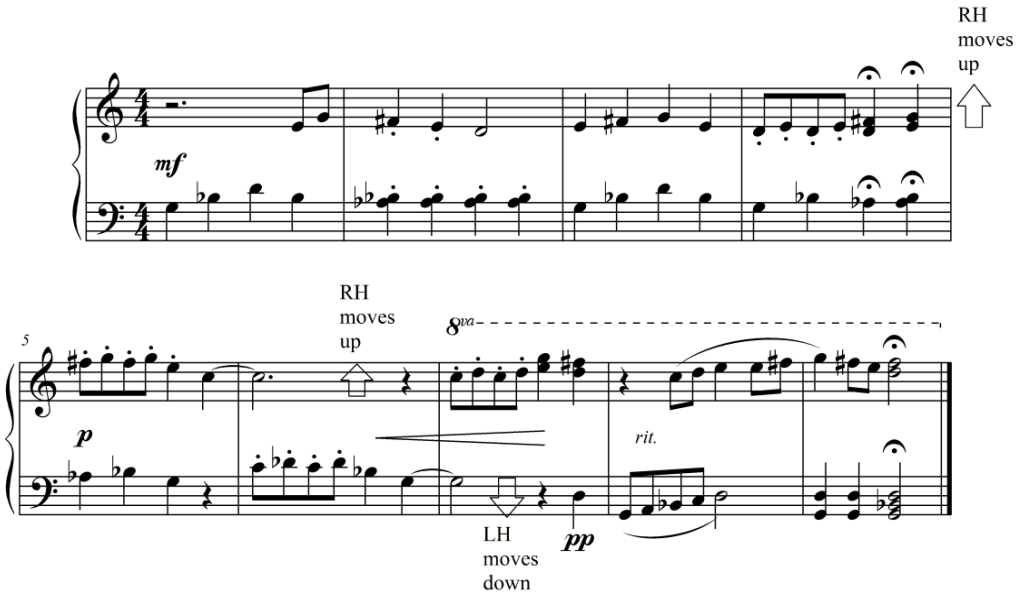

13
Left Hand
1
Mixolydian
Student
4
13
Teacher
19
1 3 1
Student
4
5
19
Teacher
25
Dorian
(LH: 4 3 2)
RH
Phrygian
Student
3 2 2
4 5 4 3
25
Teacher


31
Locrian
Student
Teacher
36
Slowly
rit.
ff

Pen Pals

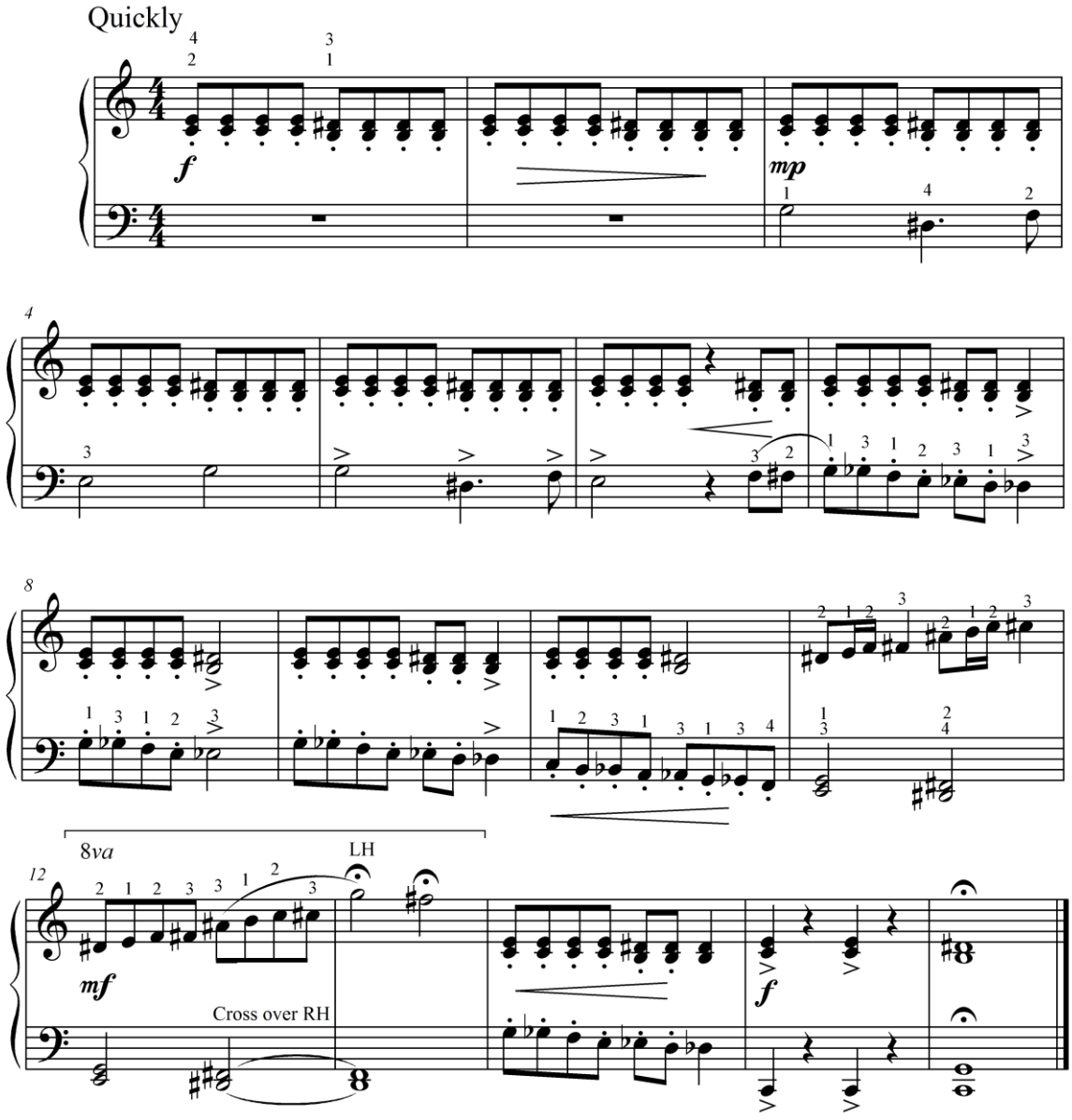
Hands moving further apart

Elizabeth A Nix



Playing in Ditches

Elizabeth A Nix



Nix, Elizabeth Ashley. Bachelor of Arts, University of Louisiana at Lafayette, Spring 2007;
Master of Music, University of Louisiana at Lafayette, Spring 2014
Major: Music Theory and Composition
Title of Thesis: Introducing Post-tonal Techniques to the Beginning Musician
Thesis Director: Dr. Matthew Steinbron
Pages in Thesis: 212; Words in Abstract: 116

ABSTRACT

Each chapter of this thesis explores a technique commonly found in post-tonal piano repertoire for students Levels 1-3 (Magrath). Post-tonal techniques evaluated for difficulty are Nonwestern scales, polychords and clusters, polytonality, atonality, serialism, aleatoric music, and experiments in sound. There are some inherent difficulties for beginner pianists in each of these topics that are discussed in detail. The appropriateness of these styles for students is evaluated and elements that are conceptually advanced are altered so that earlier exposure to these techniques is possible. Where there are areas of pedagogical weakness or a lack of material for young pianists, compositions have been supplied in a methodical order, introducing and expanding upon new and creative methods of approaching these techniques.

BIOGRAPHICAL SKETCH

Elizabeth Nix was born in Bryan, Texas. She is the daughter of Don and Mary Ann Nix. She received her Bachelor of the Arts degree in 2007 with a concentration in Piano Performance from the University of Louisiana at Lafayette. She maintains a large private studio, performs original music regularly as a singer-songwriter, and composes music for several genres including sacred music, instrumental music, and piano literature for children.