

Analysis of Zach Collins' Psalm
for Euphonium Quartet

Written by:
Michael Waddell

Zach Collins' *Psalm*, written in 2013, is a beautiful work and welcome addition to the growing euphonium ensemble repertoire. Scored for 4 euphoniums, this work explores lush harmonies and beautiful textures, reminiscent of many contemporary choral works by composers such as Eric Whitacre and Morten Lauridsen. Harmonically this is achieved through the constant use of 9-8 and 4-3 suspensions throughout the piece, which is constructed with a clear emphasis on plagal motion. This plagal motion is a clear reference to the piece's title *Psalm*, as plagal motion is often present in hymns and other church music through "Amen" cadences. This gives the piece a reflective quality, despite having an overall sound that is far from a traditional church hymn.

From a form standpoint, the work is constructed in an overall A-B-A' form however with extended transitions used to build tension and interest throughout the piece. This harmonic landscape combined with beautiful melodic material makes for a piece satisfying to both performers and audiences alike. The tonal centers of this work are also clearly delineated along with the overall form as D major, Bb minor, some transitional material in G Major, and then back to D Major. See figure 1.

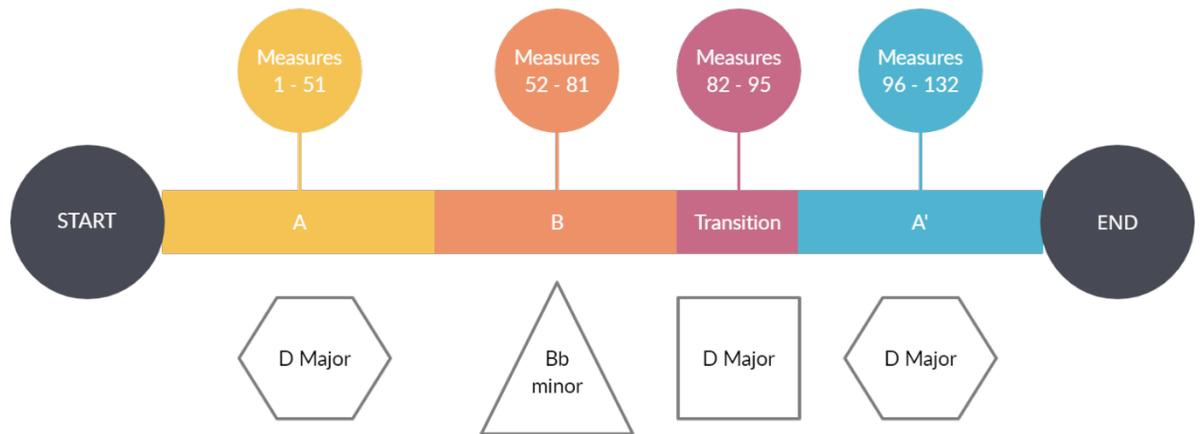


Figure 1

The ‘A’ Section of the work extends from measures 1 – 51. This section begins with a long introduction from measures 1-18 that does a lot to indicate the real flavor of the piece to come. The work opens with a 4-bar introduction in the euphonium 1 part that outlines this plagal motion of the I chord to the IV chord that is ever-present throughout the piece, albeit with some non-harmonic tones. In measure 4 the first part is joined by parts 2 and 3, and right from the start of the piece we are already treated to our first 4-3 suspension in the third part; in measure 6 the fourth part has the other suspension characteristic of this piece, a 9-8 suspension with the resolution displaced by an octave. This outlining of plagal motion and introduction of suspensions foreshadows the type of harmony that can be expected for much of the rest of the work (See Figure 2).

Figure 2

Toward the end of this introductory section, which is harmonically an extended play on IV-I plagal motion, an accelerando provides the transition into the first presentation of thematic material. This alteration of tempo is important, as it is the first in the piece, and is again foreshadowing to the rest of the work. Every transition in this piece is completed with some sort of alteration of time. Harmonically, this transition ends with a clear V-I Authentic Cadence in D Major, a rarity in this piece. At measure 19 we are introduced to the one of only two real themes in this piece. This theme first presented here in euphonium 1 is the clear primary melody and returns often throughout the work during D major sections and is often supported by plagal motion.

As the piece moves towards its “B” section at measure 52, we are presented with a curious harmonic transition. In measure 51 are 2 fermatas, the first clearly serving as final I chord for the conclusion of the “A” section in D Major, and the second as a 1-note transition that takes the piece into Bb minor. See figure 3.

(C) **Andante**

The image shows a musical score for five staves. The first staff begins with a circled 'C' and the tempo marking 'Andante'. The first measure of the first staff is marked 'p'. The second and third staves have 'p' and 'mp' markings. The fourth staff has 'p' and 'mp' markings. The fifth staff has 'p' and 'mf' markings. The score shows a modulation to Bb harmonic minor and a change to 3/4 time with a 6/16 measure.

Figure 3

Collins here chooses not to use a more expected modulation based primarily on harmony but makes use of stepwise motion in both ascending and descending directions in the first and fourth parts only, to step down and up to a Bb. The key signature and material presented at the start of “B” also marked with a time style change of *Andante* is clearly tonicized in Bb harmonic minor throughout. This unorthodox modulation to Bb harmonic minor is one of the ways that this new section takes an effective yet sharp turn in a very new direction during this new portion of the work.

In addition to this modulation and change in tonality, this section features a change into 3 / 4 time, as well as a measure of 6 / 16 thrown in to add variety with metric modulation. This section is not based primarily on a strong melody; instead, we find an ostinato present consisting of alternating 16th notes either stacked in thirds or fifths in the inner voices. Along with this, the composer continues this plagal motion in the outer voices, which from measures 52 – 62 continue to highlight this motion, in the case of this key from Eb to Bb. These features combined drive home the new tonality. See Figure 4.

C Andante

The musical score for section C, titled 'Andante', consists of four staves. The top staff contains a melodic line with a 'mf' dynamic marking. The middle two staves feature a dense, rhythmic ostinato pattern with a 'mp' dynamic marking. The bottom staff has a sparse melodic line with a 'mf' dynamic marking. Blue boxes highlight specific notes in the top and bottom staves.

Figure 4

In addition to the pervasive ostinato, this section also features the only other presentation of a clear theme other than the original theme introduced in the A section. This theme begins in euphonium 4 in measure 62 and is joined for a brief 4 measure canonical moment in bar 66 by the euphonium 1. The theme is then stripped away in measure 70 and deconstructed throughout the rest of the section, never to really return for the rest of the work. While this is a clear presentation of a new theme, the fact that it is stripped away so quickly shows the work's intention for this middle section to be strikingly different than the A and A' sections. See Figure 5.

D

The musical score for section D consists of three staves. The top staff has a melodic line with a 'marcato' dynamic marking. The middle staff has a rhythmic ostinato pattern. The bottom staff has a melodic line with a 'marcato' dynamic marking.

Figure 5

Throughout the first section of the piece, the harmonic and rhythmic motion remains relatively slow, with most of the section outlining plagal motion of IV-I, with the occasional V or vi chord, and a stream of various suspensions. The 'B' section, by contrast, contains a distinct increase in this harmonic and rhythmic motion, extending beyond the motoric sixteenth note ostinato of its beginnings, which the composer uses to increase tension. See figure 6. This section, with its ties across the bar line, creates the

sound of notes being out of phase. This, along with the increased harmonic motion, causes a great increase in tension in the piece, which sets up a long-extended transition that will eventually lead into a release of tension at the return to the original theme.

The image shows a musical score for four euphonium parts, labeled Euph. 1, Euph. 2, Euph. 3, and Euph. 4. The score is written in bass clef with a key signature of three flats (B-flat, E-flat, A-flat). The music is highly melodic and features a variety of ornaments, including slurs, ties, and grace notes. There are several triplet markings (indicated by a '3' over a group of notes) in measures 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200. The music is characterized by a strong sense of rhythmic drive and harmonic complexity, with a focus on stepwise motion and phrasing that creates a sense of tension and release.

Figure 6

The B section and the A' section of the piece are connected by a long and winding section of transitional material beginning in measure 81, the measure before *andante piu mosso* and extending through measure 101. The composer uses a similar technique here in bar 81 to transition into a tonality by using stepwise motion solely in the euphonium 4 part to move to G major. From measures 82- 93, there is an extended period of transitional material centered in G major, which returns to D Major in measure 93.

Again, an example of plagal motion.

Here at measure 93 is the real final transition back to the original theme of the piece and the climax of the piece. There is a huge crescendo and plagal motion that drives into a full climax at measure 100, where the composer places the highest and loudest notes of the entire work. This is directly followed by a ritardando and climax of the piece, as the original material returns at the *a tempo* at measure 102. At measure 92 Collins begins to setup this return as he slowly transitions us back to the main theme. This long transition back as well as false climax in measure 100 make the return at 102 extremely satisfying. The piece finally releases all the tension that began building in the 'B' section in Bb harmonic minor, which has not truly been released until this moment with this return to the original theme, supported harmonically in the same way it was during its second presentation in the original 'A' section. See figure 7.

Figure 7

This section featuring the original theme ends at measure 115, but the piece continues. Measure 116 – the end of the piece (m. 132), is a coda with some new material focused on a call and response motif between 1 part and the 3 other voices working together. The voice of the call shifts between euphoniums 1 and 3 throughout this ending section. See figure 8.

Figure 8

This extended closing section mirrors the extended introduction of the piece, providing wonderfully reflective bookends to the entire work. The piece ends very fittingly with a unique version of a plagal cadence, that closes with a cue from all of the suspensions

used throughout the piece. The last 2 chords are IV-I, both with 9ths, with the penultimate chord's 9 resolving, and the final chord's 9 not resolving. This leaves the audience without a true sense of conclusion, and with yet another opportunity for reflection. See Figure 9.

Figure 9

Zach Collins' *Psalm* is a reflective work that showcases the euphonium's lyrical qualities, while providing an engaging experience for performers and audiences alike. Its serene harmonic language and melodic interest will help solidify the work's place in the growing repertoire for euphonium ensemble.

Analysis of Anthony O'Toole's *War Machine* for Euphonium Quartet

Written by:
Michael Waddell

Anthony O'Toole's *War Machine*, written in 2012, has quickly become a staple of the growing euphonium ensemble repertoire. Scored for 4 euphoniums, it is a short tour-de-force showcasing technical prowess and lyricism, while being extremely accessible and enjoyable for many audiences to experience. From a form standpoint the work is constructed with relative simplicity, with a focus on a few repeated ostinatos and heroic melodic material. Harmonically the work explores a variety of different modes that take the listener on a hero's journey in this *War Machine*. This combined with constantly shifting meter, effective use of articulation variety, and intense dynamics make the work quite effective.

From a form standpoint this piece can be viewed as being constructed almost in modules that are linked together through rhythmic and melodic material. Labeling each section gives us a form of "A-B-C-D-E-AB'." These sections or modules are finally all brought together in a compelling synthesis of ideas toward the end of the work. See Figure 1.

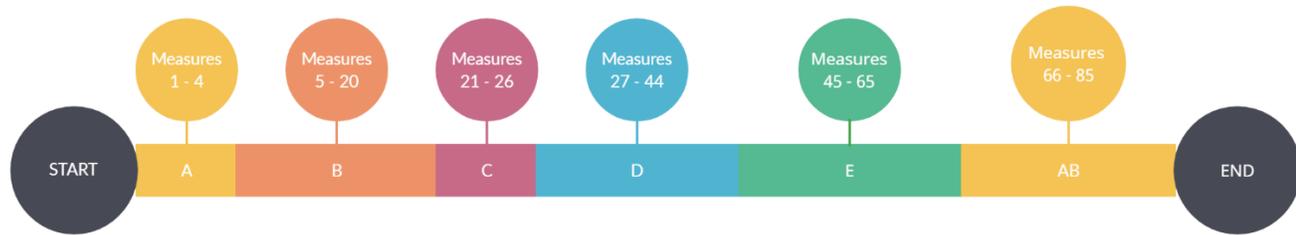


Figure 1

The “A” section, or intro, spans from measure 1 through beat 4 of measure 4. The piece begins with a rhythmic motif almost designed to give the listener no clear sense of meter. This pattern is stated with clear force in all parts and is referenced at several moments throughout the piece. Harmonically the introduction lines up with its unclear sense of meter by giving the listener an unclear sense of tonality. All the notes presented in the intro represent an Octatonic scale. See figure 2.

Figure 2

Following this intro, we have a 2-beat transition at the end of measure 4, that takes us into the “B” section of the piece. Here O’Toole introduces a rhythmic ostinato that will remain prominent for much of the piece. See Figure 3.

Figure 3

He initially presents this idea in all 4 parts, but breaks it up throughout the piece, interjecting it often in 2 or 3 parts. At measure 9 we are introduced to our first real theme of the piece in euphonium 3, marked “heroically.” This theme leads us all the way into our next transition at bar 17, and it gives the piece a very triumphant character, as if to signify this “War Machine” entering battle. For the duration of the theme, it is surrounded by the galloping ostinato in all other parts. See figure 4.

Figure 4

Harmonically this passage is effectively a long variation on a tonic chord in c minor. The ostinato presented in measure 5 is an exploration through c aeolian. This ties into the first theme of the piece that enters in measure 9 which is based on a c hypo-aeolian mode, exploring the higher tessitura of the passage.

After some transitional material that oscillates between Eb Mixolydian and Ionian modes from measures 17-21, the listener is with some clear new material at the ‘C’ section of the piece from measures 21-26. Here the listener really loses the sense of meter as we explore 7/8, 2/4 and 5/4 all in the span of 6 measures, with meter alterations in every bar. Perhaps the uncertainty and intensity of the war machine is being evoked here.

Harmonically O’Toole is using harmonic planning throughout this section, as generally all parts are moving together in parallel motion. See Figure 5. Part 4 serves as an outlier, joining and breaking apart from the rest of the voices every other bar. This adds to the disjointed nature of this section that helps lead us into our next section, and presentation of the second theme in measure 27.

Figure 5

At measure 27 we are clearly brought back to c aeolian as the bottom 3 parts have a new ostinato that carries into measure 33 here in section ‘D’. This pattern is like the pattern presented in the B section of the piece harmonically, as it comes back to the tonic and continues to experiment with playing c aeolian. Similarly, the theme here is similar to the one from measure 27 being in c hypo-aeolian, featuring c minor triads, and a similar register. The theme is extended through a transitional section from measures 33 – 44 where O’Toole used eighth note triplets against lyrical thematic ideas to drive us into Section ‘E,’ the most distinct section of the work.

For the duration of the E Section from measures 45 – 65 euphoniums 3 and 4 are working together in Quintal harmony. The euphonium 1 part brings back again this idea of

rhythmic ostinato, with the pattern first introduced at the introduction of the piece, giving us a bit of foreshadowing to a truer return in the work's final moments. After a 4-bar statement of these ideas, on beat 3 of measure 49 euphonium 2 enters with a new melody in C mixolydian. See Figure 6.

The musical score for measures 49-52 shows four euphonium parts. Euphonium 1 (Euph. 1) plays a rhythmic ostinato of eighth notes with triplets. Euphonium 2 (Euph. 2) enters in measure 49 with a melodic line. Euphonium 3 (Euph. 3) has a steady eighth-note accompaniment. Euphonium 4 (Euph. 4) has a low, sustained bass line. A dynamic marking of *mp* is present in measure 49.

Figure 6

This new melody stands out in several ways from the previous material. All the previous thematic material clearly started on beat 1 and could clearly be seen in 4 phrases, while this has no clear internal phrase endings and is really one 16 measure melodic arc. The more lyrical quality of this melody also makes it stand out as the emotional core of the work, as previous themes have been more heroic and aggressive in nature. Here we have a theme composed predominantly of half notes or longer, and we also have the highest note in the piece so far in measure 58. See figure 7.

The musical score for measures 57-60 shows four euphonium parts. Euphonium 1 (Euph. 1) continues the rhythmic ostinato of eighth notes with triplets. Euphonium 2 (Euph. 2) has a melodic line with a long note in measure 58. Euphonium 3 (Euph. 3) continues the steady eighth-note accompaniment. Euphonium 4 (Euph. 4) continues the low, sustained bass line.

Figure 7

The quintal harmony present here in the piece creates an ethereal atmosphere, one could conceptualize as the “calm before the storm” moment of a war, which is precisely what comes next in the final section of the piece.

The rest of the work, from measures 65 to the end, is a synthesis of all of the ideas previously presented and could be considered a pseudo-AB' section with a 4-bar coda at the very end. This is not mere repetition, as O'Toole instead chooses to synthesize many of the previous ideas throughout the 4 parts, including snippets of previous motifs, ostinatos, and slight variations on previous themes. In the final section we return to the

idea of uncertainty of meter as the composer again shifts us between 4/4 and 5/4 through to the end of the piece. The original ostinato returns to accentuate this uncertainty of meter, as if our “war machine” is in the heat of battle. The piece ends with a 3-bar rhythmic unison statement reminiscent of the introduction, however this time much more harmonically simple, written in open fifths until the last motif, where O’Toole inserts a 9th in the euphonium 3 part, to bring just a bit of extra harmonic integrity to the last note. See figure 8.

Figure 8

War Machine has quickly solidified itself as an important part of the euphonium repertoire, due in large part to how the music is structured to be satisfying for both performers and audiences alike. Its repetition of ideas is thoughtfully composed in intelligently scored ways. All of this is jam-packed into a work that is less than 3 minutes in length, creating something compelling and easy for a wide audience to enjoy.

Analysis of Anthony O’Toole’s Technodrone for Euphonium Ensemble

Written by:
Michael Waddell

Anthony O’Toole *Technodrone*, written in 2013, can be viewed as a follow up to his popular 2012 work *War Machine*. While these two pieces share some compositional similarities, they are unmistakably different in character, form, and scoring. Differing from *War Machine*, *Technodrone* is scored for not 4, but 6 euphoniums, an uncommon instrumentation, but one that allows for exploring many possibilities that cannot be achieved with just 4 players. *Technodrone* is a great adventure that explores the full range of the euphonium through its almost 4-minute romp of futuristic-machinelike textures and themes.

This piece can be considered a rondo, albeit not a traditional one. The piece follows the form “A-B-C-A-D-E-A-B-A-D-A-E-A”. See *Figure 1*.

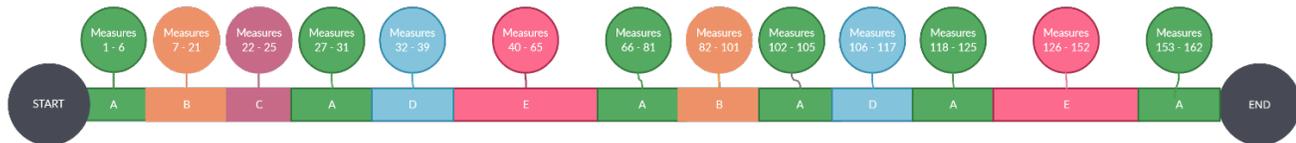


Figure 1

This constant return to A, always in the same tonal area, makes the piece formally familiar and easily digestible. Harmonically, this work is best analyzed by looking at O’Toole’s use of various modes and linear motion, and not so much the triads and their function, or lack thereof. In this regard, this is very similar to the harmonic strategies used in *War Machine*. The strong pitch structure, along with rhythmic ostinatos and

returning thematic material throughout the piece, makes for a grounded, yet exciting adventure.

The repeating A section that starts right at measure 1 gives an immediate taste of what this piece is going to be. It begins right away with the driving rhythmic intensity that is ever-present throughout the entire musical journey. The A Section is always divided into 2 ideas. In the initial presentation in what shall be called the “bass ostinato,” as the lower to parts are working together here to drive the musical bus. In the upper 4 parts are interjections, happening on various beats, through a variety of changing meters that work to give a shifting sense of meter whenever “A” is repeated. This original presentation explores Bb Mixolydian mode. See Figure 2.

The image shows a musical score for six staves, likely representing different instruments or voices. The music is in Bb Mixolydian mode and features a driving rhythmic pattern. The first four staves are marked with a forte (f) dynamic and contain rhythmic interjections. The fifth and sixth staves are marked with a forte (f) dynamic and contain a bass ostinato. The score is divided into measures, with some measures containing rests or specific rhythmic patterns.

Figure 2

Beginning with the “B” section of the piece at measure 7, we are introduced to a recurring ostinato in euphoniums 4 and 5, and a bass line in euphonium 6 that is derived from the original bass line. See figure 3.

The image shows a musical score for three staves, representing euphoniums 4, 5, and 6. The music is in Bb Mixolydian mode and features a recurring ostinato. The first two staves are marked with a mezzo-piano (mp) dynamic and contain rhythmic interjections. The third staff is marked with a mezzo-piano (mp) dynamic and contains a bass line derived from the original bass line. The score is divided into measures, with some measures containing rests or specific rhythmic patterns.

Figure 3

Measure 10 introduces the first true melody line which will recur throughout the piece in various segments and permutations. The theme provides quite a lot of variance in articulation, as well as many notes that are quite long, and contrast greatly to the underlying rhythmic patterns and bass lines. The theme is best described as one elongated 12 bar phrase that continues this exploration of the Bb mixolydian mode. See Figure 4.



Figure 4

Measure 22 marks the beginning of the “C” section of the piece. Here we have a repeated 4 bar section, one of many examples of repetition throughout the piece. This section is very transitional and serves to lead back into the first return of A. The ostinato continues here in the lower parts, while the upper 3 voices explore new material, albeit still exploring Bb mixolydian.



Figure 5

At measure 26 we have our first return of A, in slightly varied form. In fact, the returning A material that makes the work a rondo never returns in the same way; it always features a slight alteration or variation. In the case of this first return, the variation comes in the last two bars of the 6-bar phrase, which are changed from 4/4 to 5/4 to two measures of 2/4. O’Toole uses these 2 measures as a convenient transition into the next section, and to shift tonality out of Bb mixolydian. See Figure 6.

Figure 6

The next section, or “D” of the piece, shifts tonal center to G from Bb and brings in some more lyrical snippets and motifs for the first time, though with no change of tempo indicated. Snippets of the theme and bass line are scattered about, as well as a descending fifth motif reminiscent of the original theme that gets passed around the various parts. This section leads to section “E”, where the tonal center again shifts to Ab Mixolydian in measure 40 and to Cb Mixolydian in measure 52. The rate at which the composer is shifting modes is increasing, hence the harmonic interest of the piece here continues to build. Section E brings quite a bit of new material in other ways as well. There is a new ostinato here, albeit reminiscent of the previous one, and a new theme presented in euphonium 2, with euphonium 6 in contrary motion. This section continues the work’s idea of contrast, while now we have a nice lyrical melody contrasting with staccato eighth notes to make up the ostinato. See Figure 7.

Figure 7

The next return of A arrives at measure 66. Here we are greeted by the familiar material of the bassline and rhythmic interjections, voiced in the same manner as the beginning. The alteration of this return begins 6 measures later where O'Toole brings in new thematic material in the euphonium 4 part with a soaring technical, almost machine-like melody. This return also brings back to the return of Bb mixolydian, as does every return to 'A.' See figure 8. This section evokes a metallic and machine-like texture, in a similar manner to Alexander Mosolov's *Iron Foundry*. *Technodrone* lives up to its steam-punk title, alluding to the sounds of futuristic gears clanging against each other.

Figure 8

After concluding this return with a brief transition, the composer brings us to a return of the B material, the first repetition of something other than the original 'A,' material, and a trend that will continue through the end of the work. Similar to how O'Toole varies his repetition of the 'A' section, this is a return of 'B,' but it is not verbatim. The ostinato and bass line are back, and even the theme, but with some variations and extensions to each, such as 16th note runs in the bassline and the exploration of different modes. After this extended return of the B material follows yet another return of A, this one in the most varied manner that has been presented so far. For the first time this material is presented in only 4 bars, and staying in the same time signature, 4/4 the entire time. We also see a shift in the structure of the syncopation of the interjected figures. See figure 9.

The image shows a musical score for six staves. The top staff is a vocal line with a melodic line and lyrics. The second staff is a piano accompaniment with a rhythmic pattern. The third and fourth staves are piano accompaniment with a rhythmic pattern. The fifth and sixth staves are piano accompaniment with a rhythmic pattern. The music is in a key with one flat (Bb) and a 2/4 time signature. The dynamic marking is *f* (forte). The score is divided into two systems of two staves each.

Figure 9

After this brief return of “A” we are thrust right into a return of the original “D” section at measure 6. Interestingly, “C” never returns. Just like all the other thematic returns in this piece, “D” does not come back in exactly the same manner. In this case it is much more fragmented than its original interpretation with added rhythmic interest. This section serves to lead to the most varied return of the A material that occurs in the entire piece at measure 118. This section certainly captures the spirit of the original material, but with less emphasis on syncopation, and more on breaking up the bassline figures into different parts. The constantly shifting meter has returned, and we again return to an exploration of Bb mixolydian, where we remain for the rest of the work. See figure 10.

The image shows a musical score for six Euphonium parts, labeled Euph. 1 through Euph. 6. The score is in a key with one flat (Bb) and a 2/4 time signature. The dynamic marking is *f* (forte). The music is in a key with one flat (Bb) and a 2/4 time signature. The score is divided into two systems of three staves each. The music is in a key with one flat (Bb) and a 2/4 time signature. The dynamic marking is *f* (forte). The score is divided into two systems of three staves each.

Figure 10

Next, we return to a quite elongated “E” section. A familiar ostinato contrasts against the soaring lyrical melody, this time with more chordal support in the lower voices, which work in open 5th with suspensions on Ab major chords. See figure 10.

Figure 10

This leads to the final return of A, where the bass line remains present, but instead of a variety of interjections in the upper voices, a repeat Bb major chord with 9ths sustained for 5 measures. The final 2 measures of the piece are the only point in the entire work where all the voices are in rhythmic unison. The ostinatos and various thematic material drop out to clear room for a very fitting conclusion. See Figure 11

Figure 11

Anthony O'Toole's *Technodrone* is an exciting exploration of rhythmic variety and exploratory textures possible with six euphoniums. Its form grounds listeners and performers alike with its repetition, while never having a moment of dullness. Works for six euphoniums are rare, but this work is a prime example of why they should not be.