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Critical Analysis of the Compositional

Techniques and Devices used in Troy Roberts’

Album ‘The XenDen Suite’

Exegesis presented in partial fulfilment of the requirements for the degree of:

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ABSTRACT

Troy Roberts is a jazz saxophonist, originally from Perth, West Australia. At present, no academic research has been done on Roberts’ compositions or playing, making this research project a positive way of contributing new information to the academic body of knowledge.

His album, ‘The Xen-Den Suite’ was chosen as the material best suited to provide insight into Roberts’ musicianship (particularly focussing on his compositional and arranging techniques), as it is both intellectually complex and also musically innovative. The aim of the study was to identify and describe the use of various techniques and devices (including their relevance, purpose and function) present in Roberts’ music. Through this study, this researcher attempted to gain a basic overview of Roberts’ musical characteristics, with the objective to be able to utilise this information to further this researcher’s musical development (including compositions, arrangements and saxophone playing).

The findings were useful for direct application (i.e. the techniques could be used in the same manner as they appeared in the XenDen Suite, and could therefore be immediately applied to other areas such as composition, arrangement and improvisation), but the many different ways in which the techniques were used compositionally by Roberts provided a more insightful look into broader musical concepts, and their application.
PREFACE

The purpose of this project is to gain an overview of Troy Roberts’ music, including his compositional and improvisational style. His musicianship has been acclaimed in jazz circles; with reviews and articles in Downbeat magazine, achieving a semi-finalist place in the 2008 Thelonious Monk International Jazz Saxophonist Competition, and receiving a Grammy nomination as a sideman for Sammy Figueroa.

As with all jazz musicians, the integration of tradition with innovation is the method that allows for progress of the music, and Roberts is no exception. His unique application of the conventional jazz techniques described below, along with his own musical characteristics are part of what makes Roberts an interesting and progressive musician. This research aims to facilitate the progress of jazz music, by offering an academic perspective on some of the technical concepts, techniques and conventions of a contemporary jazz musician who has established a unique compositional and improvisational voice.
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CHAPTER ONE: INTRODUCTION

1.1 Research Question: What are the significant compositional techniques and devices in the XenDen Suite, and how does Troy Roberts utilize them to achieve thematic unity across the album?

1.2 Introduction

The XenDen Suite is an 8-part suite composed by Troy Roberts for ‘double quartet’, a term which in this instance refers to the pairing of the ‘jazz quartet’ (sax, piano, acoustic bass, and drum set), and string quartet (2 violins, viola and cello). Roberts plays both soprano and tenor sax on this album, and there are also supplementary instruments which are added to the ensemble for two of the pieces (concert flute, alto flute and a female voice are added for Part 6: The Scotsman’s Waltz, and a bass clarinet is added for Part 7: La Brecaton Minute). All of the pieces contain improvised sections (in the form of solos, cadenzas and improvised introductions/endoings), but the bulk of the music is composed and presented as written music.

The XenDen Suite is an unusual example of a modern jazz album; in that the instrumentation (namely, the use of a string quartet in a jazz setting) is atypical for a traditional jazz line-up. However, the use of strings in jazz is not a unique or new idea, dating back as early as the 1920s (with Jean Goldkette¹ and Paul Whiteman’s²

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bands). Charlie Parker\textsuperscript{3}, Clifford Brown\textsuperscript{4}, Stan Getz\textsuperscript{5}, Paul Desmond\textsuperscript{6} and many others have recorded jazz albums with strings; making it a legitimate and well-explored musical format (see Appendix A1, A2 and A3).

There are, however, unique characteristics prominent in this album, which will be explored in this research project.

Some of these characteristics are difficult to quantify, such as Troy Robert's own unique writing style, which draws upon many wide-ranging influences (but might not directly reflect this link upon observation; making it difficult to research).

However, there are characteristics which can be observed and identified (including compositional techniques and devices, and their respective relevance and functionality), allowing this researcher the ability to draw conclusions and gain further insight into the music of the XenDen Suite.

This type of research takes the form of musical analysis, essentially from the perspective of a jazz theorist (i.e. concentrating on the quantifiable, tangible uses of compositional devices, such as the use of \textit{hemiola}). This type of analysis assumes the reader of this document has a basic understanding of music (particularly jazz) theory, and ties in concepts that have been well documented, such as the chord scale relationships as is described in George Russell's text \textit{`The Lydian Chromatic Concept}


of Tonal Organisation’. Also partially employed in this project is the method of
analysis and description used by Dave Liebman in such articles as ‘John Coltrane’s
Meditations Suite: A Study in Symmetry’, in which Liebman analyses the
Meditations Suite in terms of its melody and harmony (particularly in terms of
intervallic use and tonality), rhythm and colour (tempo, tone/timbre, meter, etc.),
and then providing a personal view on the music.

1.3 Methodology

A methodology is required to extract this information from the recording. This
researcher aims to answer the research question using the following methodology:
1. Transcribe the XenDen Suite (all the instrument parts, and the saxophone solos).
2. Convert the scores into lead sheet/condensed score format, to facilitate the
analytical process through simplification of the compositions.
3. Analyze the material (in the format described above), and draw conclusions where
relevant.

1.4 Analytical Process

The analytical process is somewhat difficult to employ in this particular research
project. When looking at transcriptions of improvised solos, there are simple ways to
derive information relating to the improviser’s particular idiosyncrasies; e.g. the use
of extensions can be easily viewed by comparing the chord changes with the notes

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used in the solo. This type of analysis is similar to that used in the educational series by David Baker,\(^{10}\) James Aebersold\(^{11}\) and Jerry Coker,\(^{12}\) and is a useful way of clearly identifying the techniques and devices used in the solo.

This type of analysis will be used for solo analysis in this research project, but will not be applicable for the bulk of the analysis (as this researcher will be focusing on the compositional techniques utilized in the pieces, not the solos). Instead, the means used to investigate the compositions themselves will be ordered into such topics: **Harmony, Rhythm, Melody, Genre, Instrumentation** and **Form**. The analysis will follow the basic format and terms used in such texts as ‘John Coltrane’s Meditations Suite: A Study in Symmetry’, by David Liebman,\(^{9}\) and ‘The Jazz Theory Book’, by Mark Levine.\(^{13}\)

The analysis of the XenDen Suite will focus on the recorded music from the CD.\(^{14}\) There is also a DVD available,\(^{15}\) on which the Troy Roberts Double Quartet performs the XenDen Suite live, which this researcher has used as an aid for transcription, as it provides extra insight into what was played vs. improvised. It also provides a visual reference to help distinguish which individual parts are played by which instrument (particularly useful for differentiating between string players). However, the

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analysis will focus on the recorded CD version, as this researcher presupposes this version would have had the benefit of being edited in the studio (i.e. post-production changes could have been made, if the recording did not meet up to Roberts’ expectations). Therefore, this version would be closer to Roberts’ intentions and vision as an album; making any conclusions drawn from analysis of this version (compared to the live DVD recording) more significant and relevant.

The analysis will, however, involve (where relevant) all the different instrumental parts in the music (as opposed to just focusing on the lead sheet/condensed score format). The XenDen Suite was composed specifically for the double quartet instrumentation, and therefore it would be inaccurate to draw conclusions based on just the lead sheet/condensed score format of the transcriptions.

All excerpts provided in this research as examples will be in concert pitch, except the sax solo transcriptions (which will be in transposed pitch, to counteract notation difficulties due to extremes of range).
CHAPTER TWO: HARMONY

2.1 Dual Tonality/Dual Harmony

This concept is used in many of the pieces of the XenDen Suite, in different ways. One example of this is in Part 4: Memorialisation.

The piano fills (answers to the melodic statements played in unison by the sax and piano) use a superimposed key centre; i.e. playing in an unrelated key (dual tonality). The scale used in the fills is Eb Ionian (which could be otherwise thought of as using a G Phrygian mode). The key centre of Eb Major is superimposed over G (which would normally suggest G Phrygian), but the chordsSCALE relationship at this point suggests a G Aeolian tonality instead. The only difference between these two modes is the A♭ (from the G Aeolian) vs. the A♭ (from the G Phrygian mode).

This creates a semitone clash when the two modes are used together (i.e. when the piano plays the fills in the melody), resulting in an interesting texture that is quite jarring and unexpected to the ear.

First Fill:

Second Fill:
Third Fill:

This third fill uses a few different modes (as written in the example). This use of multiple tonalities being superimposed over the G minor key center could be viewed as taking the idea of **dual tonality** even further, or otherwise could be thought of as just making use of chromatic passing tones.

Note that this effect is not used on the live DVD recording, rather the piano fills outline the G Aeolian tonality more, with the use of some chromaticism.

The device of **dual tonality** is also used in Part 7: La Brecatton Minute. This device is used in the first section of the melody (sections B to D for instance), in which the bass, piano and saxes parts all relate to the Bb7(#9) tonality.

The string counterlines use several different, unrelated key centres. In the 1st violin part (see excerpt below), the phrases use E Ionian, G Ionian, D whole/half diminished scale, implying the chords EMaj7, GMaj7 and Ddim7. This opposes the Bb key centre established by the rest of the ensemble.

These counterlines are voiced using **parallel motion** (see Melody section); by transposing a voicing to match the intervallic movement of the 1st violin part. These
chords are usually voiced in either minor 3rds (resulting in a diminished 7 chord) or in minor 6ths. The **parallel motion** disregards the usual tonal method of adhering to a key center, creating even more harmonic ambiguity but still maintaining a strong sound of motion.

This device is also used by the string section in the second half of section G, and in the backgrounds of the second part of the sax solo (see excerpt below). **Oblique motion** (see Melody section) is used within the 4 parts (i.e. one voice moves at a time while the others sustain), with the changing notes essentially voiceleading through different Bb chord qualities. As this sound is superimposed over the Bbmin7 chord (established by the bass, piano and sax solo), the resulting sound is that of **dual harmony**.
Similar to the compositional device of **dual tonality**, is the use of **dual harmony**. Instead of two tonal key centres being used, **dual harmony** is the simultaneous use of two different chords which share the same key centre. This again creates harmonic ambiguity, and this device is demonstrated in Part 7: La Brecaton Minute. On the first beat of section C (see excerpt below), the piano plays a rootless V\(^7\)alt chord (F\(^7\)alt) on the downbeat, whereas the bass and LH piano unison note (Bb), contradict this by inferring the I (i.e. the I and the V of the Bb key centre are played simultaneously). This results in harmonic ambiguity, as the key center or tonality is evident, but the degree is not (i.e. it is unclear as to whether the chord is the tonic or dominant).

![Musical notation](attachment:image.png)

### 2.2 Harmonic Movement (root movement, substitutions)

There are a few recurring patterns used in the chord progressions in this piece. These patterns give the harmonic movement a quality which has sense of purpose (i.e. the chord changes sound deliberate), but also has an element of “randomness”, or unpredictability as the changes often are unrelated by tonality, or key centre. For example, there is a lot of harmonic movement in minor 3rds used in Part 7: La Brecaton Minute, especially in section F. Mostly this movement uses the same quality of chord (often which are Major 7 chords), therefore this movement is **parallel motion**. These 2 examples both come from the piano part in section E.
There is another pattern set up in the root movement near the end of section E (starting at bar 64). The pattern is: up a 4th, then down a semitone. Again, this following example is taken from the piano part in Section F. If one goes back to the bar before this example (bar 63) the chord is Gmin7, which still fits the repeating pattern.

This pattern is slightly modified in the next 4 bars (bars 68 to 71; see excerpt below), by changing the 4th movement to it’s tritone substitute (i.e. descending semitone motion instead of ascending 4ths). However, it still uses the same basic pattern to determine the harmonic movement.
2.3 Chord Qualities

The particular sound of certain chord qualities gives a timbral “character”, a concept which is used throughout Part 5: Villa.

Most of this piece is based around the Eb(add4) voicing, which is comprised of an Eb triad, with an extra semitone cluster created by adding in the 4th. This particular voicing gives the “quality” of the key centre that the piece is composed around. The chord is an integral element of the composition, and its frequent use makes it serve as a feature which provides thematic unity throughout the piece.

The first instance of this Eb(add4) chord being used is in the first bar of the piece, as a sustained RH piano chord (see below).

![Eb(add4) chord](image1)

The strings play an inversion of the Eb(add4) chord in section D. They play it as a staccato rhythmic figure, which “answers” the sax melody.

![String notation](image2)
The Eb(add4) chord is again played by the piano at section D, but this time using a different inversion. This adds a new timbral variation on the same basic chord, creating a different “quality” of sound overall in this section.

Later on in the piece, the same conceptual idea (of a major triad with a semitone cluster) is used in the string backgrounds in section F. Instead of adding the 4th to the Eb Triad, the b6th is used instead (see excerpt below). This voicing still uses the triad with a semitone cluster sound.

The Eb(add4) chord is very harmonically ambiguous; as the chord is both a Major triad and a Suspended chord (usually chords are one or the other; not both at the same time).

The use of this chord in section A also creates ambiguity of the key centre. There are lots of possible bass notes, and therefore, possible key centres that this chord could be inferring. For example, at the start of section A (see excerpt below), the bass notes and the RH piano chord together create the following chords: Eb(add4), Fmin11,
Eb(add4)/G, AbMaj9(omit 3), Bb13(sus4), AbminMaj9/B. The changing notes in the bass line essentially explores the harmonic possibilities and sonorities of the Eb(add4) voicing.
CHAPTER THREE: RHYTHM

3.1 Hemiola/Dual Meters/Dual Rhythmic Subdivisions

Hemiola is a technique extensively utilized in the XenDen Suite. This device is often present in the melodies, such as in Part 2: Freebie. The main melodic phrase (see below) rhythmically creates a “2 against 3” pattern, implying that another time signature or meter is being used. The hemiola used here creates rhythmic ambiguity, by generating conflicting subdivisions (i.e. presenting dual meters/dual subdivisions to the listener). This ambiguity is further reinforced by the fact that the melodic phrase starts on an offbeat, resulting in the two different meters not synchronizing at the start of the bar. This makes the opposing meters seem less compatible with each other. Because they do not line up at the start of the phrase, they don’t initially appear to work together. One can see that the hemiola is only used for short periods of time before switching back to the original rhythmic subdivision, or meter.

![melody](image)

The hemiola device is also used in Part 5: Villa. Lots of the phrases in this piece (melodies, bass lines etc.) are based around the rhythmic subdivision of a dotted crotchet. In the first four bars of section A (see excerpt below), the phrases are based around dotted crotchets. The quarter note pulse (of the 4/4 bars) and the dotted crotchet bass line creates a 3 over 4 hemiola.
This idea can also be seen in the bass line/LH piano unison part at section G (starting in the 3rd bar of the phrase below).

There are areas in this piece where this **hemiola** device is integrated more thoroughly into the piece, by using the whole ensemble to play the rhythms that suggest a different **meter**. The harmonic movement follows this same **rhythmic subdivision**, again reinforcing the **hemiola**. This excerpt is taken from the last eight bars of the section F.
3.2 Change in Rhythmic Subdivision

The concept of *hemiola* (implied *meter* or *rhythmic subdivision*) is further developed in section D of Part 2: Freebie (see excerpt below), by changing the *rhythmic subdivision*. The drum groove switches from a fast swing to a 6/8 Afro Cuban feel, but doesn’t change *meter* (i.e. stays in 4/4). Instead, the main *rhythmic subdivision* changes from crotchets (in the 4/4 swing feel), to crotchet triplets (in the 6/8 afro Cuban feel). This is effectively the same use of *dual* *meters/subdivisions* as the *hemiola*, but instead of implying the new *rhythmic subdivision* with just one instrument, it is embraced by the entire jazz quartet, until the strings come in playing phrases that are clearly in 4/4. This shows that the new 6/8 Afro Cuban feel is just superimposed on the 4/4 *meter*, rather than changing to 6/8 (as would be the case in a *metric modulation*).
The idea of alternate **rhythmic subdivisions** and **meters** being implemented and changing between them is also prevalent in Part 6: The Scotsman's Waltz. The melody frequently alternates between using the quaver quadruplets/quaver triplets and quavers as the main **rhythmic subdivision**. The different **subdivisions** being used imply different **meters**: quaver triplets imply 9/8, and quaver quadruplets imply either 9/8 or 2/4, whereas the crotchets and quavers imply 3/4.

The walking bass line uses mainly crotchets (implying 3/4), and strings chords often use dotted crotchets (implying 2/4 or 6/8).

This sensation of switching (or hinting at switching) between **duple meter** (2/4 or 6/8) and **triple meter** (3/4 or 9/8) through the use of alternating **rhythmic subdivisions** is an effective compositional device used to add interest and variety to the piece. The indistinct time signature (or rhythmic ambiguity) means the listener is hearing the music simultaneously in two ways (in **duple** and **triple meter**).
Note: this researcher decided it was best to write this piece in 3/4 instead of the above mentioned meters, firstly because it is a waltz (which is typically 3/4), and also for facilitating the reading for the musicians involved in playing the transcription (3/4 is easier to read than 9/8 for instance, as there will be less information per bar).

### 3.3 Metric Modulation

**Metric Modulation** is a device used in Part 8: Finale, as a way of transitioning between the different feels, meters and tempos used in the sections of the piece. The first modulation changes from 2/4 to 6/8 (between the Part 5: Villa section and the Part 7: La Brecaton Minute section), as can be seen in the example below. This **metric modulation** is a direct relationship between the old minim and the new dotted crotchet.

![Metric Modulation Example](image)

The next **metric modulation** is more complex, and goes between the La Brecaton Minute section (section E) and the Scotsman's Waltz section (section F). The drums hint at this new modulation in section E by playing 3 over 4 rhythms (e.g. subdividing using even multiples of quavers, i.e. crotchets or minim, gives a 3 over 4 polymrhythm) over the 6/8 bars, which becomes the quavers in the new 4/4 tempo. See the example below, which is not directly from the drum part, rather it has been
written as a guide for demonstrating how this modulation works:

The new 4/4 tempo is brought in by the drums after a fermata, which makes the transition easier for the musicians performing it. An excerpt from the drum part (in the transition between the Part 7: La Brecaton Minute and Part 6: The Scotsman's Waltz sections) can be seen here:

3.4 Uncommon Phrase Lengths

The use of unusual, or uncommon phrase lengths in Part 7: La Brecaton Minute is a device that is fundamental to the composition (i.e. the main phrase that the piece is based around is the bass line used first at Section A; see excerpt below). The uncommon phrase length (in this case, a 15 beat repeated phrase) used in this motif creates interest for the listener, as it is unexpected and unusual. Roberts uses changing meter to express this.
CHAPTER FOUR: MELODY

4.1 Melodic Instrumentation/Orchestration

The main melody instrument used in the suite is the saxophone (tenor and soprano), which features Roberts as the primary instrumental voice, soloist as well as composer and arranger. There are instances in which the sax melody is strengthened by playing it in unison with another instrument, most often the piano (e.g. section A of Part 4: Memorialisation, section C of Part 2: Freebie, section B of Part 7: La Brecaton Minute). Other instruments commonly used to play the melody in unison with the sax are the 1st Violin (e.g. section J of Part 7: La Brecaton Minute, last 8 bars of section D in Part 1: Tebrocnala), the viola (e.g. sections A and B of Part 5: Villa), or even the whole string section (e.g. section H of Part 2: Freebie, section D of Part 8: Finale, section E of Part 3: Feb 19).

When the saxophone is not playing the melody, the viola is usually given the melodic role (e.g. sections A and B of Part 3: Feb 19, section C of Part 4: Memorialisation, counterlines in section A and B of Part 5: Villa, etc.).

When the string section play in duophonic harmony (as opposed to the usual 4-part harmony), usually the 1st and 2nd violin play in unison, and the viola and cello play the other part in unison (e.g. 5th bar of section B in Part 7: La Brecaton Minute, 9th and 10th bar of section E in Part 2: Freebie, 19th bar of section C in Part 6: The Scotsman’s Waltz). Occasionally this pairing is changed to 1st violin and viola vs. 2nd violin and cello (e.g. in section J of Part 7: La Brecaton Minute). This alternative pairing of instruments gives a different timbre, and is generally used in octaves in
order to better work with the ranges of the instruments (which also gives a thicker, fuller sound than using duophonic harmony in unison).

The left hand piano and bass often are used together to play phrases in unison (e.g. section A of Part 5: Villa, section E of Part 7: La Brecaton Minute, last 2 bars of section A in Part 2: Freebie).

In both Part 6: The Scotsman’s Waltz and Part 7: La Brecaton Minute, additional instruments are combined with the double quartet. These new instruments add another element of timbral variety to the compositions, and add interest by bringing new sounds and instrumental roles to the ensemble.

In Part 6: The Scotsman’s Waltz, the melody is played in unison or an octave apart by three instruments: concert flute, alto flute and female voice (singing just vowel sounds, i.e. without lyrics). This 3-part unison acts as the alternative melodic instrument to the saxophone (who initially states the melody at section A).

The bass clarinet is used in both Part 6: The Scotsman’s Waltz and Part 7: La Brecaton Minute, and it’s role is similar in both instances. It is mainly used to double the bass line (e.g. section A of Part 6: The Scotsman’s Waltz, and section J of Part 7: La Brecaton Minute), or as an independent voicleading harmony line (e.g. the start of section D in Part 6: La Brecaton Minute).

4.2 Use of independent/contrapuntal lines (oblique/parallel motion)

There are many example of oblique motion being used in the suite, particularly in the string parts. This device creates harmonic movement without changing the whole chord (similar to the idea of voicleading to keep connection and similarity
between different chords, i.e. avoiding random chord movement).

An example of this is at the beginning of Part 6: The Scotsman’s Waltz, in the string quartet introduction (see excerpt below). In the first part of this introduction, the device of **oblique motion** is used to strengthen, or reinforce the sound of the moving parts. As there is generally only one moving part (i.e. part that changes note) at a time, the movement is much more audible and obvious to the listener.

**Oblique motion** also used by the strings and sax in Part 7: La Brecaton Minute, in the second half of section G (see excerpt below). The motion in this example mostly works in pairs; i.e. two different instrumental parts move together while the others sustain. The pairs of instrumental parts descend in either semitones or tone intervals, which creates an interesting effect of rapidly changing chord quality (i.e. the **oblique motion** essentially voiceleads down through different qualities of chord over the Bb7(#9) tonality, which is outlined by the bass/piano unison line).
Another example of **oblique motion** being used in the strings is in section C of Part 4: Memorialisation (see example below). This section mainly features just 3 voices: the viola, cello and bass. The **oblique motion** is cleverly arranged, and creates the overall rhythmic effect of almost every quaver in each bar being played (by one of the 3 parts). The bass line slowly descends during this section, creating a lot of harmonic motion (ie. by creating a chord change at least once per bar).

![Musical notation](image)

**4.3 Melodic use of Intervals/Scale Degrees**

There is a distinctive use of certain **intervals** and **scale degrees** for creating **tension/release** (i.e. **dissonance/consonance**) in the melodies of the XenDen Suite. These intervals are often used to outline/contrast the difference in character of various harmonic degrees, often between an **extension** (or **alteration**) and a **scale degree**. This method of intervallic analysis (and their relative inversions) is similar to that used by Mark Levine in his book ‘The Jazz Theory Book’.\(^\text{14}\)

Commonly used **tension/release scale degrees** used are:

- $\#3^{\text{rd}}$ and $#9^{\text{th}}$
- $\#5^{\text{th}}$ and $b13^{\text{th}}$

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\(^{14}\) Levine. *The Jazz Theory Book*. pp 3-12
• 3rd and 4th (although these are unaltered degrees of the scale, this intervallic relationship still creates tension, as their use together on a Major chord creates a dissonance from the minor 9th interval)

• 11th and 5th
• b9th and 6th
• b9th and 1st

The tension/release between these scale degrees is most often created using these intervals:

• Semitone
• Augmented 5th/Minor 6th
• Major 7th
• Minor 9th

Note: The intervals listed are obviously present throughout the XenDen Suite (as all music is made up of intervals). The reason for listing these particular examples is due to their prevalence in the music, being used as devices to create tension/release through extensions and alterations (i.e. not just to navigate the harmony consonantly). Instead, this list is created with the intention of discovering common harmonic/melodic trends in the melodies of the XenDen Suite.

Semitone

Part 1: Tеброcнaлa: 5th bar of B, between b9 and b1.
Part 2: Freebie: 7th bar of section B, between 3 and 9. In the 7th and 8th bars of section C, between 3 and 9, then the 11 and 5. In the 6th bar of section D, between 9 and 3.

Part 4: Memorialisation: 3rd bar of D, between 4 and 3.

Part 5: Villa: 3rd and 4th bars of section A, between 5 and 6. Also used in the 1st bar of D, again between 5 and 6.

Augmented 5th/Minor 6th

Part 1: Tebrocnala: Bars 14 and 15, between 9 and the 6 (but this could be also be regarded as harmonically anticipating the 3 of the I chord).

Part 5: Freebie: This interval is used a lot in the sax/bass unison section, e.g. in the 9th and 10th bars of this section.

Part 6: The Scotsman’s Waltz: 12th bar of section A, between the 1 and 13.

Major 7th

Part 1: Tebrocnala: Used between bars 4 and 5. If we consider this to be harmonic anticipation, then this interval is between the 9 and the 9.

Part 2: Freebie: 7th and 8th bars of section C. If we consider this to be harmonic anticipation, then these intervals are used between the 3 and the 9, then between the 5 and the 11.

Part 4: Memorialisation: 2nd bar of Section A, between the 11 and the 5.

Part 7: La Brecaton Minute: 5th bar of E, between 3 and the 9.

Minor 9th
Part 1: Tebrocnala: 4th and 5th bars of B. If we regard this interval as being an example of harmonic anticipation, then this intervallic jump contrasts the ♯1 with the ♯9.

Part 3: Feb 19: 1st bar of section E, between the ♯13 and the ♯5.

This melodic use of intervals is also prevalent in several of Troy Roberts’ solos, i.e. in keeping with the character of the tune he improvises appropriately using the same sorts of intervallic contrasts. For example, in the sax solo on Part 7: La Breconian Minute, Roberts contrasts the ♯3 and ♯9 in the same way it is featured in the melody (the sound of the B♭7(#9) chord used in the main section of the melody). Also, in the solo over section G of Part 5: Villa, Troy Roberts contrasts the sound of the ♯5 and b6 (harmonic generalization of F Mixolydian b6), in the same way it is used melodically throughout the piece (e.g. first 4 bars of melody). In the second section of the solo in Part 4: Memorialisation (over D7(b9) concert) the phrases often contrast the sounds of the ♯3 and ♯9. This highlights the quality of the altered dominant sound, and creates a lift in intensity. This chord is not featured in the piece before the solo, but is used as the climax (with the harmonic conflict of the altered dominant sound increasing the intensity created by the rhythm section).

4.4 Melodic Development

There are many ways in which the device of melodic development is used in the suite, not just in the melody, but for backgrounds and harmony parts also.

Some of the simplest examples of this are prevalent in the sax melodies of Part 2: Freebie, and Part 4: Memorialisation. Both melodies use the same format; start with a phrase, then reiterate the first part of the phrase, but this time change or develop
the end. This creates a “question and answer” effect; by using the same material again the listener is able to recognize, and therefore understand and relate to the music more easily. The **melodic development** (altering the end of the phrase) device is a way of making the “question and answer” phrases different to one another, but compatible (i.e. there is a relationship between the two phrases; giving each other more purpose and meaning). This can be seen in first 8 bars of the melody of Part 4: Memorialisation (see below).

The same technique is employed in the same way in the melody of Part 2: Freebie, but over a larger scale (i.e. the phrases are longer). One can see the same basic beginning of the melody is used in section A and section B, but from the 5th bar onwards, they are quite different (i.e. the original phrase has been developed).
The **melodic development** is used in more subtle ways, such as in the string backgrounds in the solo section of Part 2: Freebie. Again, old material is reused in a different context, with some development. Here is the phrase the strings play in section C:

![Musical notation]

This material is used again, but developed to take the form of backgrounds in the solo section. The half notes used at the start of the original phrase are omitted (presumably to leave more space for the soloist), instead the line leading up to the high chord (shown at the start of the 5th bar in the above example) is condensed into an eighth-note run (with some note changes). The excerpt below shows the phrase as it exists in the solo section.

![Musical notation]

**Melodic development** is a fundamental technique or device used in the main theme of Part 3: Feb 19 (i.e. sections A and B). The main theme (played by the strings, featuring the viola as the main solo voice) has 3 components, which are:

The main theme at the beginning of the piece has 3 components:
1. Pizzicato notes (which are played by the cello).

2. Melodic statement played by the viola (the main melody instrument in this piece), initially 2½ bars long.

3. Sustained note, initially played just by the viola.

All of these components are developed as the theme progresses, mostly by the use of expansion (of instrumentation, harmonic density and length):

1. The pizzicato notes start off with just the cello. This is developed with each repetition: upon the first repeat of the theme all the instrumentation is expanded (all 4 strings play a note), and then the next time the harmonic density is increased to a 5-note voicing (which is achieved by the viola playing a double stop).

2. The viola’s melodic statement is 2½ bars long, which remains unchanged for the first repetition. The next repetition is then expanded to become 4½ bars (and is also up an octave). After this, the following statement remains the same length (again 4½ bars long), but it has slight variations to the melody and rhythm (using semiquavers rather than quaver triplets), but overall has the same basic contour. After this, the next repetition is again expanded to 7½ bars. Again, this version has more changes to the melody (rhythmic and notes) but uses the same overall contour.

3. The sustained note is initially just a single note held by the viola for 3½ beats. After the first unchanged repetition, this component features development, through expansion (the sustained note is held longer with each subsequent repetition) and increase in harmonic density (going from a single note, to 2, to 3, to 4). The increase in harmonic density increases the tension, as the
added voices are either a semitone or a tone apart. The resulting voicing is more clashy/dissonant with each added note, and with the expansion in instrumentation (more instruments playing with each repetition) causing a dynamic increase, and the resulting effect is more intensity and tension with each development.

The use of **melodic development** is also used throughout Part 3: Feb 19 and Part 4: Memorialisation. Parts 3 and 4 are intended to operate as more of a singular unit than their individual titles would suggest; as Roberts describes in the CD liner notes\(^\text{16}\): “Parts 3 and 4 are intended to portray the sequence of emotions on the morning I received the call informing me of Alan’s tragic and untimely death (part 3, Feb 19), and at his memorial service (part 4, Memorialisation).” The connection or relationship between these two pieces is somewhat difficult to discern, but there is some subtle use of **melodic development** that can be seen to provide correlation between them.

Also, the basic viola melody in Part 3 (first stated in section A) alludes to the string backgrounds used in Part 4 (see excerpts below). Here is the viola melody as it is used in Part 3:

Here is the **development** of this basic melodic phrase, as it is used as the string backgrounds in the solo section of Part 4:

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Other connections between the two pieces can be seen in the use of **tonality**: Part 3 is based in the key of Bb Major, and Part 4 is in the relative minor key of G minor. Part 3 ends on a unison G note (played by the entire ensemble), and this essentially "picks up where it left off", by starting Part 4 in a G **tonality** (G minor).
CHAPTER FIVE: GENRE

5.1 Genre

The music is composed specifically for the double quartet (i.e. jazz quartet and string quartet), and could not be performed without this particular instrumentation (without adaptation or arrangement). The music has elements that are distinctly jazz influenced (i.e. swing, improvisation, strophic form\(^\text{17}\), use of chords commonly found in jazz), but also draws on influences and techniques/devices that stem from the conventions commonly used in classical music (such as perfect/plagal cadences, string quartet instrumentation, sonata form\(^\text{18}\) etc.).

Note: Classical Music is a “blanket” term, which will henceforth be used to refer to the Western Art Music spanning from 1600 to the present (including music from the Renaissance, Baroque, Classical, Romantic and Contemporary periods), as a means of facilitating the description.

At times he music in the XenDen Suite seems to be solely jazz; i.e. without any classical music influence. This is often when just the jazz quartet are playing, for example in the piano solo in Part 2: Freebie. Other times the music seems to be purely classical music, and again this often is when just the string quartet are playing (e.g. introduction to Part 6: The Scotsman’s Waltz). However, the vast majority of the material in the suite uses both quartets together (the number of bars of music


composed for both quartets far exceeds the number for either quartet by themselves, see Appendix A6), and integrates characteristics of both genres.

The incorporation of the classical and jazz elements in the music is not always equally distributed, i.e. sometimes there are elements of both genres present, but one is more heavily favoured than the other. An example of jazz being favoured is in the Part 2: Freebie, the material of which is mostly unchanged jazz with the addition of strings (see Appendix A1). There are classical elements used, such as the basic Sonata Form (see section 7.2), but otherwise the music is mostly jazz influenced. An example of classical music being more heavily favoured would be from the 9th bar of E in Part 6: The Scotsman’s Waltz to the end. The music here is written for the unaccompanied string quartet in a chamber music style (i.e. favours the classical side), but the addition of the saxophone improvising in a jazz style does add some jazz influence.

Where the music is incorporated relatively equally (i.e. at the end of section C in Part 3: Feb 19, the harmony uses both typical classical cadences and jazz chords), the genre becomes more like “Third Stream”.19 This is a term first used by Gunther Schuller, used to describe music that combines and integrates elements of both jazz and classical music equally (i.e. essentially a “hybrid” genre).

CHAPTER SIX: INSTRUMENTATION

6.1 Instrumental Arrangement in relation to Range/Register

The arrangement of the string section often favours their lower registers, frequently going down to the lowest notes of the various instruments. There is not very much high register used in the violin parts; instead Roberts has opted for using the lower register which has a richer sound, that is more conducive to blending (within the section and ensemble).

Some exceptions to this general rule are when the high register is used as an effect, e.g. the two violins sustain a high Db in section E of Part 7: La Brecaton Minute (see excerpt below).

This sustained tone is much higher than the rest of the ensemble at this point, and acts more as a monophonic pad which voiceleads through the harmony as it changes.

The rest of the ensemble contrasts this with a more spacious role; they play shorter fragmented phrases that use space in between. The use of strings to play sustained pads is a technique that is common throughout the album, but usually as a section (as opposed to the monophonic pad in the above example).

The use of the lower range of the strings may be a by-product of the arranging restrictions of this particular instrumentation (rather than a deliberate compositional decision by Roberts). The tenor saxophone (and sometimes soprano
saxophone) is the main melody instrument in the ensemble, and the average range of this is about the same as the cello (i.e. lower than the violin and viola). As standard jazz arranging practice is to voice the melody as the highest note\(^{20}\), this places constrictions on the range in which there is room for all five voices (sax and strings) to be voiced in a 5 part chord. There are some situations in which the other voices go higher than the melody note e.g. the last 2 bars of section C in Part 7: La Brecaton Minute:

There are 3 voices (Violin 1, 2 and Viola) all playing higher than the melody, but this is worked around by doubling the melody note an octave higher (violin 1’s part). This strengthens the melody enough to mean that it isn’t lost amongst the other voices.

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This system of voicing below the melody note also affects the piano playing on the album. The pianist’s role in this ensemble is mostly comping, and again the restriction of the relatively low tenor saxophone range means the comping is usually in quite a low register (to avoid playing higher than the melody note). For example, in Part 2: Freebie the piano comping on the hits of the main melody is usually based a third below the melody. See excerpt below (taken from the beginning of Section A):

Sometimes the piano doubles the melody note by voicing it at the top of the chord. This helps to strengthen the sound of the melody by doubling the **orchestral weight**, which makes it more present in the overall mix (similar to the way the soprano and piano play the melody to Part 4: Memorialisation in unison to strengthen the sound). This technique is used the last 4 bars of section F of Part 7: La Brecaton Minute (see excerpt below). The F7(#5#9) chord and the EMaj13(#11) chord both double the melody note at the top of the voicing. The other chords in this example (DbMaj7, Ebmin7 and Ab7sus4) all feature the same technique as mentioned previously, i.e. voiced a 3rd below the melody. It seems as if the use of a doubled melody note is a technique reserved for more impact, as in this example it is only used on the chords that are more heavily accented (and more prominent in the context of the song).
6.2 Instrumental Specific Voicing

The voicing of chords within the string section is generally quite straightforward. Where the strings are functioning as an accompanying section (i.e. mostly when they are being used with the rest of the ensemble), the chords are most often a direct translation of 4 note jazz piano voicings. Interestingly, Sammy Nestico suggests (in his book “The Complete Arranger”\(^{21}\)) that this type of voicing (which he refers to as “a closed, saxophone-type voicing”; essentially the same as 4 note piano voicings) is not the best use of the string section, as it sounds “meager”.

One type of voicing used in the suite is **root position 4 note voicings**. These are often (but not always; see backgrounds in the solo section of Part 1: Tébrocnaíla) used when the string section is playing unaccompanied, as there is no bass note provided. An example of these unaccompanied **root position 4 note voicings** can be seen at the end of Part 6: The Scotsman’s Waltz (see excerpt below).

Rootless 4 note voicings are another commonly used type of string voicing. Often these chords are A and B rootless voicings (A voicings from lowest note to highest: 3rd, 5th/6th, 7th, 9th. B voicings from lowest note to highest: 7th, 9th, 3rd, 5th/6th as defined by Dan Haerle’s book, “The Jazz Language”\textsuperscript{22}). The string chords often utilize basic voicelowering to follow the harmony; similar to the way a pianist would voicelead one-handed 4-note chords.

These are most often used when the string section is playing with the rest of the ensemble (and the bass note is provided). This example below is taken from section F of Part 2: Freebie.

Other types of string voicings that are translated from piano chords are **quartal** voicings (i.e. based on 4\(^{th}\) intervals). An example of this in Part 4: Memorialisation is at the end of section C (see excerpt below).
Another example of **quartal voicings** being used in the strings is in the 34th bar of section E in Part 6: The Scotsman’s Waltz (see excerpt below). At this point in the music, the string quartet is the only part of the ensemble accompanying the sax, and therefore they have to take a different approach (i.e. the arrangement is restricted to using **root position voicings**, with the bass note being played by the cello). The **quartal voicing** used here works well to provide a rich, full sound within the string quartet.

**Quintal voicings** are used occasionally in the string quartet, such as the final chord of Part 6: The Scotsman’s Waltz (see excerpt below). The chord is a Bbmin9 at this
point, and Roberts has used a common **quintal voicing** (from lowest note to highest: 1\textsuperscript{st}, 5\textsuperscript{th}, 9\textsuperscript{th}, 3\textsuperscript{rd}, 7\textsuperscript{th}); directly translating it to the string quartet and sax instrumentation. Note that the tenor saxophone is voiced in the middle of the chord (i.e. the melody note becomes a harmony part), rather than the usual method of voicing it as the top note. The arrangement does not cause the melody note to sound “lost”, or inaudible however, as the sax note sounds first and then brings in the strings. This allows the listener to identify the note when it is played solo, and then hear the same note in the context of the chord.

There are instances in the suite where the arrangement of the string section takes a different approach to voicing chords to create a new texture. In Part 3: Feb 19, the string section often plays chords that are comprised of semitone and tone intervals. These types of voicings are also known as **secundal chords**\textsuperscript{23}, or **tone clusters**. These are similar to **cluster voicings** (see the **cluster voicings** section in “Jazzology” by Robert Rawlins\textsuperscript{24}), but use exclusively tone and semitone intervals. This type of chord creates a harmonically dense, and dissonant sound.

The orchestration of this voicing into the string quartet works effectively to create a different tone colour, or **timbre** to those achieved with the types of voicings mentioned previously. The excerpt below taken from section C of Part 3: Feb 19, and shows the implementation of the **tone cluster voicing** described previously.

6.3 *Instrumental Use Of Timbre*

In Part 4: Memorialisation, the different techniques of arco vs. pizzicato string playing is used effectively for creating changes in **timbre**. These changes are used for creating variety between contrasting sections, and take advantage of the different **timbres** the string section can produce to create interest in the compositions. With the first basic segment of the piece (sections A through B), the pizzicato strings are used for an accompaniment role; behaving more as an extension of the rhythm section than an individual section. The excerpt below (taken from section A) shows
how the strings use the pizzicato technique rhythmically to create a mechanical, or
clockwork sounding timbre. The definition of the word memorialisation is: ‘a
ceremony to honor the memory of someone or something’.25 This piece could be
recreating the sound of the funeral procession (i.e. a funeral march) for Alan Corbet.

In the next contrasting section (section C) the arco strings are implemented, and the
resulting texture, or timbre is quite contrasting (i.e. more legato, and smoother
sounding).

The use of different playing techniques in the string section to create timbral
variation is also prevalent in Part 5: Villa. Again, these different techniques are used
in accordance with the contrasting sections of the piece.

The first main section (sections A through D) utilizes the strings for mostly
countermelodies and sustained pads. This uses the arco technique to play legato

phrases. The excerpt below (taken from the end of section B) demonstrates this use of legato arco technique.

In the next contrasting section (section D), the strings are used to play staccato figures with the bow (i.e. short but still arco). They also play legato phrases (as shown before), but in this section they mostly are more heavily accented. This creates a variation in timbre from the previous contrasting section. The excerpt below is taken from section D, and shows the staccato and accented legato arco techniques being used in the string section.

The next use of the string section to provide a different timbral variation is in section G. Here the strings are used to play a pizzicato chord (which is an inversion of the Eb(add4) chord frequently utilized throughout the piece) on beats 1 and 3. This creates timbral variation within the piece, and effectively adds another element of interest in this contrasting section. The excerpt below shows how the
strings use the pizzicato technique in this section.

The use of bowing techniques in relation to the production of timbral variation is utilized in the final chord of Part 3: Feb 19 (see excerpt below). The final chord is played by the string quartet with a “bowed tremolo” technique (as clarified in Cecil Fosyth’s book, “Orchestration”26). This technique, combined with the fp/crescendo dynamic motion creates dramatic intensity, and adds a new timbre to the piece. The use of the tremolo chord within the string quartet provides a fitting accompaniment for the soprano sax cadenza, which is at the apex of the intensity of Part 3: Feb 19.

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The use of *timbre* is relevant when viewing the final chord of the suite; the Db7 at the end of Part 8: Finale. The string voicing of the Db7 chord is all in double stops, with each of the strings playing either the root and/or 5th (i.e. duophonic harmony). This use of the strings gives a rich, warm sound, that although is very simple harmonically, is nevertheless effective at creating a settled and “finished” sounding end to the piece. At this point the piano plays a brief improvised cadenza, establishing the “bluesy” character, which matches the *timbre* created by the string section.
CHAPTER SEVEN: FORM

7.1 Overall Form

An interesting perspective on this album is that it is composed as a suite (defined by the Collins Dictionary via thefreedictionary.com\textsuperscript{27}: ‘An instrumental composition in several movements less closely connected than a sonata’), rather than a collation of individual pieces. While on many jazz albums there may be some purpose, or conscious choice as to the order of the tracks on an album, mainstream jazz albums are not created with the intention of being experienced or viewed in their entirety. In other words, the individual tracks are stand-alone units, and generally speaking, were not created with such a unified direction from piece to piece\textsuperscript{28}. The concept of a suite is more commonplace in classical music\textsuperscript{29} (but not unheard of, e.g. John Coltrane’s “A Love Supreme”\textsuperscript{30}, amongst others), and again shows the integration of typical characteristics from the two different musical disciplines, or genres.

7.2 Form Within Individual Pieces/Parts

When analysing the types of form used in the XenDen Suite, there are many different examples. There are sections that repeat various instrumental parts indefinitely (such as a bass ostinato, a set of chord changes etc.), in which it is up to the soloist to cue the ensemble to proceed on to the next section. This open repeat (i.e. undefined

\textsuperscript{27} Collins English Dictionary – Complete and Unabridged. ‘Suite’. Available from \url{http://thefreedictionary.com}, last accessed 24/1/12.
\textsuperscript{29} David Fuller. Grove Music Online, Oxford Music Online. ‘Suite’. Available from \url{http://www.oxfordmusiconline.com}, last accessed 24/1/12.
number of repeats which is left up to the performer’s discretion) idea is used in the
solo sections of Part 4: Memorialisation (sax solo), Part 5: Villa (piano solo and
bass/sax solo), Part 7: La Brecaton Minute (sax and drum solo) and Part 8: Finale
(improvised sax/drums introduction, piano and sax solos, drum solo). Similar to this
idea of **open repeats** creating undefined length of sections is the use of **improvised
cadenzas**. The **cadenzas** are as long as the performer decides to continue playing,
and then again cues the next section. **Improvised cadenzas** occur in Part 2: Freebie
(piano introduction), Part 3: Feb 19 (bass and sax cadenzas), Part 4: Memorialisation
(sax cadenza and piano outro), and Part 8: Finale (drum cadenza).
The open improvised solo sections also could be described as using **strophic form**\(^\text{31}\),
which is often the type of form used in jazz (i.e. when playing jazz standards)\(^\text{16}\). The
harmonic construct used in the solo section repeats indefinitely (until cued to
proceed to the next section by the soloist), which is a use of **strophic form** for these
sections.

There are instances in which **sonata form** is used in the suite, one of them being
Part 5: Villa. This brief analysis will follow and compare Part 5: Villa with the
description of **sonata form** as described by James Webster in his entry in Grove
Music Online\(^\text{32}\).

The **exposition** is as follows: Sections A through C are the **first subject group**,
Section D is the **transition** section, Sections E and the Solo Section are the **second


\(^{16}\) The New Grove Dictionary of Jazz. ‘Forms: Structures, Techniques and
Procedures’. pp 396

\(^{32}\) James Webster. Grove Music Online, Oxford Music Online. ‘Sonata Form’. Available
subject group (which is in a different key, a typical trait for the second subject group), with the last 16 bars of B7sus4 taking the basic format of the codetta (which brings the second subject group to a close, usually with a perfect cadence, but in this case with an interrupted cadence; B7sus4 to Eb(add4)).

The development is from Section F right through to the end of the Bass and Sax Unison section which, in keeping with standard practice of sonata form, modulates through many different keys, and elaborates on material used in the exposition (such as the use of the Eb(add4) chord and the Eb Mixolydian b6 tonality, development and elaboration of the melody etc.). It also introduces new material, such as the melody in the bass and sax unison.

Section H takes the form of the recapitulation, by reiterating the material from the exposition (repeating the transition section, and the second subject group), but surprisingly with the omission of material from the first subject group (not in keeping with standard practice of sonata form; usually the recapitulation gives prominence to the first subject group). However, the material taken from the second subject group (recapitulated in section I) is changed from Major to minor, with slight modifications to the chords, which is commonplace in the recapitulation. There is no coda section to speak of, but this is not a requirement for sonata form, rather more of a commonly used ending.

The basic model of sonata form (i.e. using exposition, development and recapitulation) is used in all the pieces/parts of the suite except Part 3: Feb 19. Part 3 does not repeat sections (but uses repetition or motivic development within
sections), instead uses a combination of variation form$^{33}$ and through-composed music$^{34}$. In this piece, components of the melody are taken and altered for use in contrasting sections, and therefore uses elements of variation form (in which aspects of the previous material are repeated in an altered way). The different sections are otherwise unrelated, therefore employing elements of through-composed music (in which no sections repeat).

For example, the initial melodic statement played by the viola is reused in an altered form later on in the piece, demonstrating the melodic development used to create relationships between the contrasting sections; i.e. implementation of variation form. Here is the original melodic statement as it is used at section A:

![Melodic statement for section A](image)

An alteration of this melodic phrase is next played by the sax in the next contrasting section (section C). This melodic development provides a relationship between the two otherwise unrelated sections:

![Melodic statement for section C](image)

In the next contrasting section (section D), the cello motif used in section A is reused. Here is the original cello motif from section A:

![Cello motif for section A](image)

---


Here is how it is used in section D:

\[
\begin{align*}
\text{Violoncello} & \quad \text{Pizz.} \\
\end{align*}
\]

The 1st violin melody in section D is also a derivative of material from the previous contrasting section (section C). Here is the original material from section C:

\[
\begin{align*}
\end{align*}
\]

Here is how this material is used in section D by the 1st violin (it has been modified rhythmically and transposed, but otherwise it has the same basic melodic contour):

\[
\begin{align*}
\end{align*}
\]

The **melodic development** demonstrated above provides the links between the contrasting sections in Part 3: Feb 19, and demonstrates how this use of **variation form** is used to provide the piece with the overall structure it needs to function as a purposeful and effective piece of music.
7.3 Repetition/Development of Form

The use of repetition and development as it relates to form (rather than melodic repetition/development) is a fundamental compositional component of Part 8: Finale. This piece serves as a reprise, or summary of all the other pieces in the suite. It comprises of sections that are based upon the main themes of most of the other pieces (in the basic format of a medley), but they have been developed in some way (e.g. change in tempo, key, groove, instrumentation).

This type of reprise, featuring the main themes of the preceding music is a technique more commonly used in classical music than in jazz. This basic idea is present in the recapitulation section of a sonata form\(^\text{32}\) (which alludes to the themes or expositions, which in this case are separate pieces, through the use of repetition and development). The following analysis of Part 8: Finale will aim to give an overview of the piece, where the material has originally come from, and how it has been adapted (i.e. showing the use of repetition and development in the piece).

Part 8: Finale begins with just sax and drums, in an open improvised section. In the last eight bars of the solo, Roberts plays a phrase which is based around the first four bar melodic statement in Part 5: Villa, to cue the next section for the rest of the ensemble. Although this phrase is still unaccompanied by a chordal instrument, the notes in this melody give the sound of a DbMaj7 going on to a C7sus4 (see excerpt below).

\(^2\) James Webster. Grove Music Online, Oxford Music Online. ‘Sonata Form’.
These chords are derived from the last 4 bars of Part 1: Tebrocnala. Although they have been transposed to accommodate the change in key, and the DbMaj7 has come from the tritone substitution of G7sus4 (which would otherwise be the chord in this position), these chords function in the same way as they do in Part 1: Tebrocnala. These eight bars utilize repetition and development from the original pieces, and these permutations of the melody and chords serve as a reminder to the listener of the previous material.

This leads on to the first full ensemble section (Section A), which is based around the melody and chords of Part 1: Tebrocnala. The main differences or developments between this and the original version of the piece are the tempo (which is much faster this time around than the ballad tempo used before, seemingly adapted to the tempo and style of Part 2: Freebie), and the key (now played in F Major, previously was in Eb Major). There are slight alterations to the melody, but otherwise this piece is the same as before.

Further into the piece, the same 8 bar melodic phrase (as shown in the excerpt above) is used again as a cue. However, this time it leads into the section based around Part 5: Villa.

This section uses material from Section G of Part 5: Villa, with the bass, LH piano and sometimes sax playing the bass line, and the RH piano playing the condensed string pizzicato voicing. The original piece used the idea of drums “trading” with the band (i.e. playing improvised fills in response to the bass line), but this concept is developed even further this time, by making the fills 10 bars long (rather than 2, as was used originally). These 10 bar fills still allow for the 8 bar sections to be
maintained (i.e. 6 bars of full ensemble, 2 bars of drums to complete the 8 bar length, then another 8 bars solo). The bass motif from this section originally featured a modulation from Fmin11 to BMaj13(#5) by changing the bass line but maintaining the same chord (played by the pizzicato strings). The bass motif has been developed in Part 8: Finale, to modulate between Fmin11 and Db(add4), which involves transposing the chord (now played in the right hand of the piano) down a tone for the Db section.

In the next section (Section D), the bass line continues to repeat in the same fashion, but the 10 bar drum fills are reduced to 2 bars. Also, a unison melody played by the strings and sax is introduced. This melody has been developed from the counterline originally played by the strings in Section C of Part 5: Villa. Here is the melody as it stands in the original piece:

![Melody](image)

This is how it is has been developed for use in Part 8: Finale. Note that in the 4th, 5th and 6th bar of the example below, the whole ensemble reinforces the bass melody by playing it in unison. This is another development from the original material.

![Development](image)
The next section is brought about quite suddenly, by abruptly changing the meter and drum groove. This section features mostly just drums (improvising around the basic 6/8 groove), and the strings playing held chords which were previously used in the solo section of Part 7: La Brecatón Minute. The held chords are played in free time (i.e. not adhering to the tempo set by the drums), but each subsequent chord is cued, so that all of the string players change chord simultaneously. These chords are in the same key as the original piece (i.e. directly transferred from Part 7: La Brecatón Minute to this section of the piece), with the only difference being the duration the chords are held for (originally the chords sustained for 4, 3 or 2 beats before changing, in this case indefinite length due to the fermatas).

The final section of the piece is based upon material from Part 6: The Scotsman’s Waltz (the last 4 bars of the flute/voice unison melody in section B). Here it is, as it is used in The Scotsman’s Waltz:
Modifications to the original material include changing the key (up a semitone), changing the groove (the original medium-up tempo 3/4 jazz waltz is changed to a slow 4/4 swing feel), and the chords (changed to make a 4 bar turnaround that can keep repeating indefinitely). This is how it is used in Finale:
This 4 bar phrase is repeated a number of times by the ensemble, over which Roberts improvises (based around the melody). The final repeat of this phrase is brought about with a ritardando and decrescendo, with the ensemble dropping out to just leave the sax melody. Roberts takes his time resolving the last note of the melody, and then cues the rest of the ensemble to join him on the final chord. This final chord is a Db7, giving the sound of a blues oriented conclusion to the piece. This choice of chord/resolution is a more conventional option (i.e. the perfect cadence
used in Part 8: Finale is more expected) than that used in the original Scotsman’s Waltz.

Overall, the device of **repetition** and **development** is of primary importance to this piece, and utilizes it in a way to **recapitulate** the previous material, but retaining interest by altering elements (such as key, tempo, instrumentation, feel, etc.). By condensing and summarizing the music, the piece acts to finalize and conclude the suite.
CHAPTER EIGHT: SAX SOLOS

8.1 Overview

Troy Roberts plays improvised sax solos on all but one (Part 3: Feb 19) of the pieces on the album, and his unique voice as an improviser comes to light upon studying his solos. Through transcription and analysis of his solos (refer to Appendix D), various techniques and their use can be viewed. Some of these techniques are prevalent in almost every jazz musician’s improvisation (i.e. jazz vocabulary that is part of the musical tradition, and is intrinsic to the genre), but there are also personal qualities, which can be attributed to Troy Roberts’ own influences and innovations. The analysis of these transcriptions is somewhat limited in certain cases (i.e. some solos are based around one or two chords, and therefore do not provide much insight into Troy Roberts’ harmonic improvisational techniques), so the focus is going to be different for different solos (e.g. harmonic techniques in some cases, melodic development, rhythmic devices etc.). The analysis will also include ways in which Roberts creates thematic unity within the respective pieces, between composition and solo.

8.2 Part 1: Tebrocnala

This solo shows Troy Robert’s extremely lyrical and melodic playing, and his solo ideas at this tempo seem to be mostly divided into phrases between 2 and 3 bars long. The shape of his phrases tend to have a vertically symmetrical shape; either starting ascending and then descending towards the end of the phrase, or vice versa. The gentle sound of this piece means Troy Roberts’ soloing is appropriately quite subdued and tranquil, creating thematic unity between composition and solo.
Rhythmically, the solo ideas are mainly based around quavers, crotchet and quaver triplets, which are the same basic rhythmic subdivisions as are used in the melody (i.e. the solo acts as a spontaneously composed melody, which is different but corresponds with the actual melody).

In the last 8 bars of the solo, the tonality changes to the relative minor, and the sonority becomes increasingly dark and ominous. Roberts' playing style adjusts to reflect this change, by using shorter phrases and more frequent use of long notes. This gives an intense and forceful sound, compared to the previous graceful “floating” over the chords. He uses a lot of sequence and melodic development in this section (which seems to gives his phrases more significance and impact, as the recurrence of similar musical statements gives the feeling of recognition to the listener). This part of the solo is also played more rhythmically delayed, giving the phrases a lyrical, contemplative sound. This change of solo approach at this harmonically significant point again demonstrates the close relationship between composition and solo (creating \textbf{thematic unity} overall).

\textbf{8.3 Part 2: Freebie}

This solo is an interesting one to analyze, as the fast tempo means that Roberts has to have to rely on licks that he has learned very well, and will therefore come out subconsciously (as the fast tempo makes it difficult to spontaneously improvise original material). This means that this solo is good example to ascertain various techniques that Roberts has learned thoroughly/innately (i.e. which will give a good indication of his main techniques/licks/devices).
This solo is one of the most heavily bebop-based solos; as quavers are the main
rhythmic subdivision employed, and standard bebop techniques/devices are
frequently used.

Roberts starts off using quarter notes and sequence/melodic development to
establish the time. After this he launches into the quaver based lines, using many
enclosures, bebop scale licks, and a lot of sequence. There are a few examples of
non-chord tones occurring, which could be viewed as mistakes, but upon further
inspection seem to suggest Roberts is often harmonically anticipating the chord
changes. For example, half way through bar 34 of the solo the notes start suggesting
a G7(sus4) tonality (which is anticipating the next chord change a bar and a half
early). The same idea is utilized in bar 42, which is again anticipating the E7 a bar
and a half early.

Over the dominant chords, Troy often uses the altered scale (e.g. bar 25, bar 47), or
implies an altered sound by using parts of diminished scale triad patterns. This
device has been used previously in the melody (in the 7th and 8th bars of section C),
as shown in the excerpt below:

![Uses Diminished Scale Pattern](image)

This is part of a pattern based on the half-whole C Diminished scale. This is the full
pattern (i.e. not taken from the piece; just shown here as an example):

![Full Diminished Scale Pattern (C Half-Whole Diminished Scale)](image)
The **diminished scale harmony** (using the idea of ideas being transposed by minor 3rds) is further utilized in the solo, for example in bar 59 (see excerpt below). Note that the F# note in the D Triad does not work harmonically with the Bmin7(b5) chord. Roberts is continuing the device of **harmonic generalization**, as shown in the previous bar (bar 58). This is a technique that Roberts uses when the chords are changing rapidly. Another example of **harmonic generalization** being used is in bars 68-69, in which Roberts uses C Ionian over the entire II-V-I progression. This **harmonic generalization** is probably just a means to playing something over these tricky sections of the solo, rather than an intentional decision to “blanket” over the chord changes.

Another example of this same **diminished scale harmony** technique of major triads descending by minor 3rds is in bar 63 (see excerpt below).

Another device used in both solo and melody is the **enclosure**. This is another typical bebop pattern, and is first used in the melody in the 6th and 7th bar of section A (see excerpt below).
The enclosure is used again in the melody between the 9th and 10th bars of section C (see excerpt below).

![Enclosure Diagram]

This device is used frequently in the solo, such as in the 19th and 20th bars of the solo (see excerpt below).

![Enclosures Diagram]

Roberts makes use of basic permutations of this device, such as in the extended enclosure. This can be viewed in the 18th bar of the solo (see excerpt below).

![Extended Enclosure Diagram]

These devices utilized in the solo are the same types of devices that are used in the melody of the piece; i.e. quite a bebop-oriented approach to soloing. This is in keeping with the style, and shows thematic unity and appropriate musical decisions being made by Roberts.

**8.4 Part 4: Memorialisation**

Harmonically this solo is interesting to look at, as it is more of a modal piece.

Therefore, analysis of the solo is going to provide insights into a different aspect of Troy Roberts’ improvisation (i.e. with almost no chord changes, the solo will not
show how Roberts navigates harmonic progressions, as was the case in the previous
solos). This solo has 2 basic sections, the first being over the I chord (the Gmin7
tonality), then the V chord (basically around the D7(b9) chord, but sometimes
implying a D7sus4(b9) sound instead), with an overall build in intensity throughout.
The first section frequently utilizes techniques such as sequence, melodic
development to create interest and significance with the phrases. Most of the
phrases seem to be based around the Harmonic Minor mode (with embellishments
and added chromaticism). To avoid sounding too static harmonically, Roberts
implies the V chord, or uses the technique of “outside” playing (i.e. playing outside
the tonality to give a different sound; usually followed by a resolution back to
playing “inside” the harmony). The rhythm section are building the intensity over
the course of the solo, and about 8 bars before the change to the V chord, Roberts
starts playing more long notes (phrases leading up to a long G note). These long
notes change the texture of the ensemble, and create a more forceful, intense sound.

When the change of chord comes about, Troy Roberts continues to base his soloing
ideas around the long G notes (which by this stage has gone from being the b7 to the
#9 of the new chord), creating some continuity between the different sections
(similar to the idea of voiceleading). These phrases get shorter, and use more
semiquaver subdivisions, creating a more frantic feeling to again create more
intensity. After this, the solo becomes composed mostly of fast semiquaver and
demisemiquaver runs, mostly using linear chromaticism, enclosures and outside
playing (often F# Major). At the end of this section, the ensemble has a held
(fermata) chord, with a brief sax cadenza. This chord starts at the apex of intensity,
and gradually fades down to nothing. The sax cadenza reflects and helps create this
change, by starting with fast lines at the top of the range, and then gradually working down to slower runs, longer notes, and the lower register of the horn. The cadenza is mostly based around the 5th mode of the harmonic minor (giving the sound of the I key that was previously used), with the occasional extension added (#9 and a passing tone of a ∆7). The last run (going from the middle D to a low B) is a concert Bb Ionian scale, which is probably played as a technically easy flurry of notes rather than a conscious harmonic decision.

This approach to the overall shape of the solo (in terms of intensity, dynamics, phrase lengths, range etc.) is directly related to the contours of the piece; showing relevance and thematic unity between the composition and Roberts’ solo.

8.5 Part 5: Villa

The improvised solo starts with 4 bar “trades” with the band (the violin and viola play a 4 bar phrase, interestingly with no bass in this section), over the Eb(add4)/G tonality. In these trades, Troy Roberts uses the Mixolydian b6 mode (the 5th mode of the Melodic Minor Ascending scale). His improvisation here is fairly conventional for the style, but seems to use a similar vertical approach for each 4 bar line (generally starting fairly high in range, and working his way down the instrument).

The next part of the improvised solo in this piece is over section G, on the repeat (the first time through this section features the drums “trading” fills with the bass line). In this section, Roberts starts off by using rhythmic ideas (using just one note to start off the solo, then using rhythmic flurries of notes).
Roberts tends to play consonantly within the harmony for this section, using the Bb Melodic Minor Ascending scale (which happens to be the same scale as the F Mixolydian b6 mode used previously, i.e. using a familiar and recognizable sound in a different way) and G Dorian for their corresponding chords. There are a few instances in which Roberts uses sequence, a technique that is later used frequently in his improvisation.

After the second time bar in Section G, the tonality shifts to G Major. Roberts still sticks to playing “inside” the harmony, and uses sequence with short melodic ideas to create interest and significance to his phrases.

The rest of the ensemble decrescendo and eventually drop out over the course of 16 bars, leaving just the bass and sax to improvise together in an open, duophonic solo section.

In the “bass and sax solo section”, Roberts tends not to leave many long spaces, as this would leave the bass alone and unaided to establish the time. Most of Roberts’ phrases are based around quaver subdivisions, but there are areas in which he deviates into double time (i.e. semiquavers). Harmonically, this section is based around the G Major tonality used in the section before, and Roberts’ note choices mostly adhere to this key center (either playing around G Major or implying a perfect cadence, i.e. D7 going back to G Major). However, there are phrases in which
Roberts uses “outside” playing, i.e. playing intentionally outside of the tonality to create a contrasting sound. When Roberts uses this technique, it tends to be used only for the duration of a single phrase, and then resolved by following it with an “inside” phrase. Often melodic development or sequence is used to create some correlation between the “outside” and “inside” phrases; giving a semblance of order or purpose to what would otherwise be irrelevant to the harmony.

The most common technique used in this section of the improvised solo is sequence, or melodic development. Roberts tends to use a lot of brief ideas, and create long phrases by developing them. This development often takes on a vertical approach, and creates a diatonic scalar pattern by moving the phrase up or down, while staying within the tonality.

Sometimes this development includes expansion; i.e. making the idea longer by adding more notes.
The solo winds down to finish as Roberts starts playing individual short notes rather than longer phrases. He works his way down the range of the horn, with an overall decrescendo, creating an overall decrease in intensity as a way of finalizing the solo (and leading onto the bass/sax unison line that follows the solo section).

**8.6 Part 6: The Scotsman’s Waltz**

The idea of switching between different rhythmic subdivisions to give the impression of different time signatures/meters is utilized by Troy Roberts in his solo, in the same way it is present in the melody and accompanying parts (providing thematic unity between solo and composition).

The phrases in the solo seem to switch between semiquavers (duple time) to dotted quavers/quaver quadruplets (triple time). See excerpt below, taken from the beginning of the solo.

![Musical notation](image)

This same idea of changing rhythmic subdivisions is taken even further when he places accents on every second triplet, creating a metric modulation. This implied time signature created by the metric modulation is neither duple or triple time, but instead introduces in another rhythmic subdivision to the piece. This idea can be viewed in bar 26 to 27 of the solo (see excerpt below), with the accents placed to show the implied beats used to create the metric modulation.
Another example of the same **metric modulation** being applied to the solo is in bar 38 (see excerpt below). Again, accents are placed to show where the emphasis lies, to create the effect.

The rest of the solo utilizes many standard bebop-techniques, such as **enclosures**, **bebop scales**, and **sequence**. This use of techniques show Roberts is playing in a more bebop-oriented style than in other solos (e.g. the solo in Part 5: Villa). This is probably due to the harmonic structure of the piece; i.e. lots of changing chords as opposed to the static harmony in the solo sections of Part 4: Memorialisation, Part 5: Villa and Part 7: La Brecaton Minute.

Roberts utilizes other harmonic based ideas/devices in this solo, such as **harmonic delaying**, **harmonic anticipation**, **harmonic generalization** and basic **harmonic substitution**.

**Harmonic delaying** is an effective device for creating **tension and release** between the rhythm section and the soloist; i.e. by conflicting harmonically for a short period of time and then resolving. Where Roberts uses this device (for example in bar 11 of the solo, see excerpt below), the next chord change is only delayed for one extra beat. This may be intentional, or may be due to the vast majority of Roberts’ pre-learned soloing vocabulary being based around the more conventional 4/4 **meter**. In
other words, if Roberts played a motif that was based around a 4/4 meter in this 3/4 piece, the lick would be one beat too long for the bar; creating a **harmonic delaying** effect.

![Harmonic Delaying](image)

**Harmonic anticipation** is the opposite device to delaying (i.e. outlining the chord changes before they happen), but it has the same basic effect of creating **tension and release**. Roberts seems to use this device to anticipate the resolution of a II-V-I, by outlining the I chord early. This can be seen in the 21\textsuperscript{st} bar of the solo (see excerpt below).

![Harmonic Anticipation](image)

**Harmonic generalisation** is a device that Roberts has used previously in solos (see analysis of the solo in Part 2: Freebie), as a means of navigating rapidly changing chords. In this solo, however, it is more a means of retaining the sound of the tonic chord (i.e. choosing to focus on the sound of the tonality more than the individual chord changes). This can be seen in bars 30-33 of the solo (see excerpt below). In the 31\textsuperscript{st} bar of the solo, Roberts continues to play patterns based around the Bmin7 (in spite of the fact that the chords change to Emin7), starting with a digital pattern, then by implying the V (F#7alt). The note choices in this bar are mostly consonant with the Emin7 chord, but the A# on beat 4 indicates that Roberts is playing phrases based around Bmin7 (i.e. using the device of **harmonic generalisation**).
**Harmonic Substitutions** are implemented in this solo, as a means of creating more interest than by just navigating the chords with the usual chord/scale relationship. This is similar to the use of **harmonic generalisation**, in that Roberts adapts the chord changes to create a different sound. This device is used in the 19th bar of the solo, over the C7sus4 chord. The usual substitution to a sus4 chord to generate a parent scale (to use when improvising) is to take the min7 chord a 4th below. This comes from the theory of the II and V chords being interchangeable; in which the sus4 chord operates as a V (in a major II-V-I). Usually with a C7sus4 chord, the substitution would be for a Gmin7 (and therefore G dorian scale), but in this example below, Roberts instead substitutes a Gmin7(b5) (and therefore a G locrian #2 scale). In this example, the same basic substitution is being applied, but using the II chord from a minor II-V-I. This gives a different sound to the solo than using the usual parent scale (through the use of different extensions), and is an effective way of adding interest.

One of the main concepts in Part 6: The Scotsman’s Waltz is the idea of using the same theme in different keys. The basic melody (played at section A) is transposed into different keys to give a changing, varied sound and character to the piece. Roberts’ solo reflects the importance of this concept in his solo, by playing very “inside” the changes, i.e. making the focus of the solo mostly about the harmony. He
does this utilizing the various techniques previously described, creating **thematic unity** between solo and composition, which strengthens the significance of the piece overall.

**8.7 Part 7: La Brecaton Minute**

This solo is based almost entirely around one chord (C7(#9)), with the repeating bass motif outlining the 15 beat sections. The lack of chord changes in the solo section causes Roberts’ soloing to focus less on outlining the harmony, and more on devices such as sequence, inside vs. outside playing, and use of rhythmic techniques such as metric modulations.

Roberts uses many of the same harmonic techniques as in the more bebop-oriented solos (such as Part 2: Freebie, and Part 6: The Scotsman’s Waltz), such as **enclosures, diminished patterns, and melodic use of intervals.** However, in this solo these devices are used to give different sounds to the static harmony; rather than as a means of outlining chord changes.

The use of **enclosures** can be seen in the 17th bar of the solo (see excerpt below), as a means of adding chromaticism to the solo. The **enclosures** introduce new “passing tones” to the phrase, adding variety to the scale degrees used in the solo.

![Enclosure Example](image)

**Diminished patterns** are used in the solo, again as a means of adding chromaticism. The patterns are created using the interval of a minor 3rd to transpose motifs, in the same way they are used in the solo in Part 2: Freebie. An example of this is from bars
25-28, where a 3-note motif is transposed in minor 3rds. Note that the first motif (using Eb and E♭) does not fit with pattern as it is transposed by a Major 3rd instead. This is probably an intentional decision, as a means of specifically using the Eb and E♭ notes (i.e. the 9th and 3rd), as they are used frequently in the melody of this piece. This shows Roberts is providing a link between melody and solo, by introducing the device of **melodic use of intervals** (as a way of creating **thematic unity**).

![Musical notation]

In bars 97-103 of the solo, Roberts alludes to the melody (the last 2 bars of section D), which seems to be a cue for the band to go to the next section. Roberts then starts playing the chord changes of the next section in bar 105 of his solo (starting with BMaj7), but the band continues to play over C7#9 while the string backgrounds start (see excerpt below). This must be a mistake between Roberts and the rest of the ensemble.

![Musical notation]

**8.8 Part 8: Finale**

There are 2 instances in this piece where Roberts plays an improvised solo; at the start (the sax/drums introduction), and in the solo section (following the piano
solo). This researcher decided to focus on the introduction solo to gain further insight into Roberts’ improvisation, as it shows Roberts’ improvisation a different musical setting (i.e. just drums and sax, known as “time, no changes”). The other sax solo is based on the chords to Part 1: TeprocnaIa, in the style of Part 2: Freebie (both of which have already been analysed); meaning the analysis which would effectively be observing the same material twice.

The main focus of this solo is rhythm and melody (as there are no chord changes to create harmony; i.e. not harmonic soloing). Roberts uses a lot of sequence and motivic development in this solo, with varying phrase lengths. The main rhythmic subdivision utilized is (swung) quavers, which shows Roberts is taking a bebop approach to the solo.

The sax and drums start this piece off with an open improvised section. The idea of trading is instigated at the start of this section, with basic 8 bar improvised fragments being exchanged between the sax and drums. After this it just takes the form of a sax solo (i.e. the drums play more of an accompaniment role, rather than an improvising soloist), and Roberts plays a lot of fast, bebop oriented phrases, often with the use of sequence. There is not a readily identifiable key center (especially seeing as Roberts tends to use a lot of chromaticism), but there is a basic semblance of harmony created by Roberts using mostly E Jazz Minor and Db Major. This idea can be seen from bars 17-24 (see excerpt below), in which Roberts bases the whole phrase around E Jazz Minor (with a few added chromatic passing tones).
Again, Roberts bases his ideas around E Jazz Minor from bars 82-88 (see excerpt below).

The use of Db Major is often found in phrases with pentatonics, such as in bars 32-33, 93, and 98 (see excerpts below).

The use of **enclosures** in this solo is similar to that in the solo on Part 7: La Brecaton Minute (i.e. used as a device to add chromaticism to the phrase for effect). This device is often coupled with **sequence** to create long phrases that are very heavily bebop-orientated. For example, the use of enclosures with sequence can be seen
from bars 35-40 (see excerpt below).

In the last 8 bars of the solo, Roberts plays a phrase (which is based around the first 4 bar melodic statement in Part 5: Villa) that cues the next section. Although this phrase is still unaccompanied by a chordal instrument, the notes in this melody give the sound of a DbMaj7 going on to a C7sus4. The bass plays a C note in the 7th and 8th bar of this phrase; confirming this harmony.

These chords are derived from the last 4 bars of Part 1: Tebrocnala. Although they have been transposed to accommodate the change in key, and the DbMaj7 has come from the tritone substitution of G7sus4 (which would otherwise be the chord in this position), these chords function in the same way as they do in Tebrocnala.

8.9 Conclusions
Throughout the above-mentioned examples, it can be seen that Roberts employs many techniques in his improvisation, including those from the bebop idiom (i.e. linear chromaticism, enclosures, bebop licks etc.), the post-bop idiom (i.e. sequence, melodic development, harmonic anticipation/delaying), but also techniques from the “Brecker” style from the 1970’s-80s (i.e. diminished patterns, metric modulations, harmonic generalization etc.). The overall conclusion when attempting to describe
Roberts as an improviser is that he is not necessarily pioneering the use of new
techniques, but instead uses creativity in his application of these techniques. His
vocabulary when improvising mainly consists of the techniques previously
mentioned (which draws heavily upon jazz tradition), but his creativity with how he
uses it helps to create his own unique and distinctive voice.
CHAPTER NINE: THEMATIC UNITY

9.1 Concept of Duality

By having a common theme or concept that permeates many different aspects of the album (e.g. from the title to the use of harmony etc.), the overall result is a sense of “tying the album together”; i.e. creating thematic unity. This is an important concept, as it gives significance and meaning to the album.

By interconnecting and providing relationships between many different aspects of the album through the use of thematic unity, the overall outcome is that of creating synergy\(^{35}\) (for example, creating unity between the individual pieces makes them take on a new relevance as part of an album; i.e. they function as a component of a whole that is greater than the sum of the parts).

This basic idea has already been alluded to previously; e.g. Part 8: Finale summarizes or recapitulates the main themes of the album whilst making use of repetition and development, which achieves the same sense of thematic unity.

Also relevant to this idea is the relationship between solos and composition; i.e. how the two are correlated through incorporation of similar devices (as opposed to using irrelevant and separate, discrete ideas for the solo and composition respectively), which creates a sense of thematic unity in the pieces.

Throughout the album there seems to be an overall theme or concept, which is incorporated into the compositional material in many different ways. This theme is

duality, or dichotomy (as defined by the Collins Dictionary\textsuperscript{26}, accessed from thefreedictionary.com: "being twofold, or a classification into two opposed parts or subclasses."). The use of duality in many aspects of the XenDen Suite is very significant in providing thematic unity throughout the album, as it is one of the most prevalent and widely-used themes.

Duality is a theme that is extremely important in human culture; see examples provided in Appendix A5. The concept of duality is particularly well described (in relation to traditional Chinese religion and philosophy; i.e. yin and yang) by Schuyler Cammann in his article "Some Early Chinese Symbols of Duality"\textsuperscript{36}. This article describes the two forces present in the concept of duality as contrasting one another, but not being opposites; i.e. being interconnected and interdependent. This principle extends to the use of duality throughout the XenDen Suite.

9.2 Title

The concept of duality is used in the title of the album. To quote Troy Roberts on his explanation for the title (taken from the CD liner notes\textsuperscript{16}), he defines the meaning as: "Xen = strange, foreign, distant", and "Den = a comfortable, secluded room". The word XenDen is already demonstrating the concept of duality, as the neologism is constructed of two equal parts, with contrasting meanings (i.e. unfamiliar vs. familiar).

The word "Xen" part of the word is a prefix, which is also sometimes used as “xeno” (e.g. xenophobia). “Xen” also has religious connotations, i.e. Xen could be a different

\textsuperscript{16} Troy Roberts. The XenDen Suite. (liner notes)
spelling of Zen\textsuperscript{37}: a school of Buddhism that, interestingly, holds Nondualism\textsuperscript{38} to be one of its important philosophical concepts. This paradox, however, seems to disprove any correlation between this album and Buddhist Zen.

The titles or names of Parts 1 and 7 also have significance (i.e. Tebrocnala is Alan Corbet spelt backwards, and La Brecaton is an anagram of Alan Corbet), strengthening the notion that there is importance and meaning behind the titles used in the XenDen Suite.

\textbf{9.3 Instrumentation}

The \textit{duality} theme is apparent even before listening to the album, as the ensemble is referred to as a “Double Quartet”. This instrumentation, specifically chosen to play these compositions, reflects the nature of the \textit{duality} concept; i.e. contrasting but in balance. The two quartets are quite different (in terms of instrument family, and the respective musical \textit{genres} usually associated with each quartet), but are in balance (i.e. balance of the number of musicians, balance of the classical/jazz influence and incorporation into the music, approximate balance between the frequency of use of both quartets in the compositions: see appendix A6).


9.4 Genre

The music in the XenDen Suite uses elements from both jazz and classical music (at times separately), but primarily incorporates both genres equally. As previously described, this music seems to be in keeping with the Third Stream principles.

This excerpt is taken from the article “Third Stream Revisited” in Gunther Schuller’s book ‘Musings: The Musical Worlds of Gunther Schuller’; 19

“Third Stream is a way of composing, improvising, and performing that brings musics together rather than segregating them. It is a way of making music which holds that all musics are created equal, coexisting in a beautiful brotherhood/sisterhood of musics that complement and fructify each other.”

This excerpt alludes to the idea of duality in relation to genre, as Schuller refers to the two genres (i.e. classical and jazz music) being brought together, and coexisting in a way that is mutually respectful to the traditions, but also beneficial to their progress and development.

One example of the use of duality in relation to genre is the use of different types of form. The pieces in the XenDen Suite employ types of form that are common in both jazz and classical music (e.g. strophic form is common in jazz 16 and sonata form is common in classical 17); showing duality through the incorporation of both genres into the music.

---

9.5 Harmony

The compositional device of **dual tonalities**, or **dual harmony** has already been described previously. The use of this device creates a harmonically ambiguous sound, as the listener is at once presented with two conflicting tonalities, or key centers. These areas in the music (e.g. the improvised piano fills in Part 4: Memorialisation), demonstrate the application of the theme of **duality** by superimposing contrasting key centers on one another. In the example taken from Part 4: Memorialisation, the two key centers (G minor/Dorian and Eb Major/Ionian) are interconnected (as their respective scales share many of the same notes) but contrasting (i.e. minor vs. major, different root notes).

9.6 Rhythm

The use of **hemiola**, **metric modulation** in the XenDen Suite is another example of **duality** being implemented in the music. These compositional devices all make use of **dual rhythmic subdivision**, either by hinting at the different subdivision while retaining the current **meter** (i.e. in the case of the **hemiola**), or fully switching to the new subdivision (through the use of a **metric modulation**). Both these examples display the basic concept of **duality** of rhythmic subdivisions or **meters**.
CHAPTER TEN: SUMMARY

10.1 Discussion
Identifying and analyzing the use of compositional techniques and devices in the XenDen Suite has been a good way of understanding some of the “inner workings” of a complicated piece of music. It is only fair to mention, however, that although this description of the technical musical elements is useful for expanding knowledge/repertoire for personal application to other areas, it fails to acknowledge the creativity, musicianship, personality and love that has gone into composing and performing/recording this album. It has been a valuable undertaking for this researcher to study this music; which has not only been intellectually stimulating, but also has been rewarding to become acquainted with music that is very heartfelt.

There may be some doubt as to the validity of drawing conclusions based on techniques identified by the researcher, as Roberts may not have intentionally or consciously used them in the compositions. However, the frequency of most of the devices seems to suggest that they are in fact significant examples, and therefore valuable insights into Roberts’ compositional style.

10.2 Conclusions
The way in which Roberts uses the previously identified techniques and devices in The XenDen Suite is extremely varied (i.e. Roberts often explores many different ways to create new material with the same ideas). This musical concept of using the same ideas in many different ways, not only creates interest, but also creates links
and connections within the piece’s many aspects, giving the overall whole a sense of thematic unity that strengthens its effect.

For example, the use of implied rhythmic subdivisions (or hemiola) in the melody of Part 2: Freebie is a technique that is thoroughly explored and expanded on in many areas of the piece (e.g. the rhythm section chord changes following the implied subdivision, another subdivision being hinted at, the change to a 6/8 groove to fully employ the new subdivision).

The thematic connection between the sax solos and compositions previously described also displays how Roberts uses the same techniques in many different ways. The sax solos almost always employ some of the main compositional techniques and devices used in their relative composition, which makes the solos sound more familiar, contextually appropriate and effective.

Another example of this same concept can be seen in the appearance of many examples of duality in The XenDen Suite. Duality is a thematically unifying link between many different aspects of the album (such as the title, the instrumentation, the genre, the harmony etc.), which again has the overall effect of creating a more meaningful, significant album.
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DISCOGRAPHY


**A1: Examples of Jazz with Strings**

These examples are of jazz that is not stylistically changed, but has the addition of instruments from the violin family (not including double bass, as it considered to be a typical jazz instrument).

**Jean Goldkette Orchestra (with Joe Venuti playing violin)**


**Paul Whiteman (Violinist/Bandleader)**


**Charlie Parker**


**Clifford Brown**


**Stan Getz**


**Paul Desmond**


**Lee Konitz**
An Image: Lee Konitz with Strings

**Ahmad Jamal**
Ahmad Jamal with the Assai Quartet

**Julian “Cannonball” Adderley**

**Esborn Svensson Trio and Schleswig-Holstein Chamber Orchestra**
(featuring Pat Metheny)
I Mean You (composed by Thelonious Monk)

**Dave Douglas**
Blue Latitudes (composition for 3 improvising soloists and 14 piece chamber orchestra)
Parallel Worlds (album for trumpet, violin, cello, bass and drums)
Charms of the Night Sky (album for trumpet, acoustic bass, violin and accordion)

**A2: Examples of String Quartets that play Jazz**

**Turtle Island Quartet**
A Love Supreme: The Legacy of John Coltrane

**Kronos Quartet**
Monk Suite: Kronos Quartet Plays Music of Thelonious Monk (with special guest Ron Carter)

**Orion String Quartet**
At the Octoroon Balls – String Quartet No. 1 (composed by Wynton Marsalis)

**A3: Examples of Third Stream**

**Modern Jazz Quartet & the Beaux Arts String Quartet**
Conversation (composed by Gunther Schuller)
Bill Evans
Bill Evans Trio with the Symphony Orchestra (compositions by Claus Ogerman)
Symbiosis (compositions by Claus Ogerman)

Miles Davis/Gil Evans
Miles Ahead

Eddie Sauter (with Stan Getz)

A4: Key for Identifying Techniques in Analysis of Transcriptions

Enclosure: Preceding a target tone with a note a semitone above and below

Extended Enclosure: Preceding (or following) an enclosure with more linear chromaticism

Sequence: Repeating a phrase either exactly the same, or with some form of motivic development (i.e. rhythmic, melodic, elongation etc.)

Bebop Scale: Use of either the Major, Dominant or minor Bebop Scales

Diminished Pattern: Use of a repeating pattern taken from the diminished scale. It usually involves transposition of minor 3rds
Linear Chromaticism: Use of the chromatic scale in a phrase

Metric Modulation: Rhythmically suggesting a different time signature/subdivision

Gone But Not Forgotten: A commonly played jazz lick. This is sometimes interpreted in different ways (i.e. different order of notes, but the same basic lick)

Outside Playing: Playing intentionally outside of the tonality for effect. This is usually resolved by following up with a phrase that “resolves” by playing back “inside” the tonality.

A5: Examples of Duality in Human Culture

Religion: heaven vs. hell, god vs. devil, good vs. evil, Dualism
Physical/Natural Phenomenon: life vs. death, day vs. night, summer vs. winter, sun vs. moon, male vs. female
Philosophy and Psychology: yin and yang, left brain vs. right brain, creativity vs. logic, mind vs. matter, right and wrong
Science: hypothesis vs. null hypothesis, binary opposition of sociological sciences, mathematical dualities, binary numeral system for computers, electrical dualities, quantum wave-particle duality, matter vs. anti-matter

Excerpt from Schuyler Cammann in his article “Some Early Chinese Symbols of Duality”24.
“Traditional Chinese philosophy and the religions of Taoism and Neo-Confucianism, as well as China’s indigenous folklore, have all stressed the belief that human life, this world, and indeed the whole universe, were shaped and influenced by two interworking forces called the yin and the yang. This concept of a fundamental duality found expression in Chinese arts and crafts, architecture, music and literature, and even in mathematics.”

“The Old Chinese concept [of Duality, or yin and yang] of two basic forces in nature-contrasted rather than opposed and, ideally, kept in perfect balance-was far more than a mere philosophical construct. It had its basis in actual, observable phenomena. The sun, for example, was the prime unit chosen to express the active masculine force, yang, because it poured forth heat and light; while the moon was the chief symbol for the more passive feminine force, yin, since it effortlessly received its light at second hand from the sun. However, the moon was not uselessly inactive, the Chinese thought, because they knew it had been most important since earliest times as an indicator of time, with influence on human biology. Yin-yang philosophy recognized cycles in life and nature in which constructive action followed quiet thought, and dynamic creativity succeeded periods of rest. Such reasoning was extended to every aspect of Chinese Culture.”

A6: Calculation of Frequency of use of each Quartet in the XenDen Suite

The approximate frequency of use of both quartets in the suite was calculated through totaling the number of bars of music (taken from Appendix B; the full scores of all pieces in The XenDen Suite) composed for each quartet. The findings are as follows:

Jazz Quartet: 450
Classical Quartet: 264
Together: 844

The total number of bars in which the jazz quartet and classical quartet are featured (i.e. the overall results of the “jazz quartet” and “classical quartet” categories) added together (450 + 264 = 714 bars) is approximately the same as the total number of bars in which they are used together (844 bars). This is close
to the same, showing balance, or **duality** of the frequency of use of the quartets in the compositions.
Appendix B

B1: Full Score Transcriptions of The XenDen Suite
Part 1: Tesrocnala

Troy Roberts

Transcribed By Michael Crawford

Key: E, C^7, A^7, E/B

Tempo: 120

Time Signature: 4/4

Instruments:
- Soprano Saxophone
- Violin I, Violin II
- Viola
- Violoncello
- Piano
- Bass
- Drums

Meter: 4/4

Key Signature: E, C^7, A^7, E/B

Sax & Piano Intro

E C^7 A^7 E/B
Part 2: Freesie

Rubato Piano Intro

Enor Saxophone

Violin I

Violin II

Violoncello

Rubato Piano Intro (based on chords in the intro)

Piano

Consum Piano Intro

Acoustic Bass

Open, Rubato Piano Intro

Drum Set
\[ \text{\textit{Intro}} \]

\[ \text{\textit{Fast Swing}} \]

\[ \text{\textit{ECM Feel}} \]
\[ E_\# F \]
Part 4: Memorialization

Drums Pick-Up

Drums Pick-Up  Pizz.

Drums Pick-Up  Pizz.

Drums Pick-Up  Pizz.

Drums Pick-Up  Pizz.

Drums Pick-Up  Pizz.

Drums Pick-Up  Pizz.

Drums Pick-Up  Pizz.
Improvisation over E flat Ionian
Improvise over E flat Ionian
Part 5: Villa

Violin I

Violin II

Viola

Violoncello

Piano

Bass

Drums

Tenor Saxophone
SOLO SECTION

\[ G^\flat_7 \text{(String Backgrounds Last Time)} \]

\[ D^b m^7 \]

EN. SAX.

VLN. I

VLN. II

VLA.

VC.

PNO.

A. BASS

Dr.
Play fills around E flat Aeolian
Fade Down To Nothing
Bass and Sax Solo

196

Open Repeat.

F\textsuperscript{b}7

F\textsuperscript{b}7

F\textsuperscript{b}7

F\textsuperscript{b}7
Part 6: The Scotsman's Waltz

String Intro

Troy Rober

Transcribed by Michael Crawfor
$D^118 \ B^7 E^\#/B \ B^7 E^\#/B \ C^7 A^7 E^7$

$D^118 \ B^7 E^\#/B \ B^7 E^\#/B \ C^7 A^7 E^7$

$D^118 \ B^7 E^\#/B \ B^7 E^\#/B \ C^7 A^7 E^7$

$D^118 \ B^7 E^\#/B \ B^7 E^\#/B \ C^7 A^7 E^7$

$D^118 \ B^7 E^\#/B \ B^7 E^\#/B \ C^7 A^7 E^7$

$D^118 \ B^7 E^\#/B \ B^7 E^\#/B \ C^7 A^7 E^7$
PART 7: LA BRECATON MINUTE

q = 150

TROY ROBERT
TRANScribed BY MICHAEL CRAWFOOD

SAXOPHONE - 1

VIOLIN I - 2

VIOLIN II - 3

VIOLA - 4

VIOLONCELLO - 5

PIANO - 6

ACOUSTIC BASS - 7

DRUM SET - 8
125
89m

(String Backgrounds Move Faster Harmonically)

(String Backgrounds Move Faster Harmonically)

(String Backgrounds Move Faster Harmonically)

(String Backgrounds Move Faster Harmonically)
Keep Soloing!

Open Repeat.

Last Time.
PART 8: FINALE

Tempo = 140

Fast Swing

Violin I
Violin II
Viola
Violoncello
Piano
Acoustic Bass
Drum Set

Open Repeat.

Saxophone

Transcribed by Michael Crawford
EN. SAX.

Vln. I

Vln. II

Vla.

Vc.

Pno.

A. Bass

Dr.

Dm7
E7
A7
E7
A7
A7/D
D7(b9)

Walk!

Swing

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™

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™

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™

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<table>
<thead>
<tr>
<th>Solo Section</th>
<th>Broken Feel (1st Time Only)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EN. SAX.</strong></td>
<td></td>
</tr>
<tr>
<td>VLN. I</td>
<td></td>
</tr>
<tr>
<td>VLN. II</td>
<td></td>
</tr>
<tr>
<td>VLA.</td>
<td></td>
</tr>
<tr>
<td>VC.</td>
<td></td>
</tr>
<tr>
<td><strong>PNO.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>A. BASS</strong></td>
<td></td>
</tr>
<tr>
<td><strong>DR.</strong></td>
<td></td>
</tr>
</tbody>
</table>

- F%/ D%/ B%/ C7(b9)
- C7(Sus4)
- C7(b9)

- Broken Feel (1st Time Only)
- F%/ D%/ B%/ C7(b9)
- C7(Sus4)
- C7(b9)

- Broken Feel (1st Time Only)
- F%/ D%/ B%/ C7(b9)
- C7(Sus4)
- C7(b9)

- Broken Feel (1st Time Only)
- F%/ D%/ B%/ C7(b9)
- C7(Sus4)
- C7(b9)

- Broken Feel (1st Time Only)
- F%/ D%/ B%/ C7(b9)
- C7(Sus4)
- C7(b9)
In 4 (Every Time)
\[ Dm7 \quad E^9/7 \quad A7 \quad E^9/7 \quad A7 \quad A^9/7/D \quad D7(b9) \]

In 4 (Every Time)
\[ Dm7 \quad E^9/7 \quad A7 \quad E^9/7 \quad A7 \quad A^9/7/D \quad D7(b9) \]

Walk (Every Time)
\[ Dm7 \quad E^9/7 \quad A7 \quad E^9/7 \quad A7 \quad A^9/7/D \quad D7(b9) \]

Dr.
\[ \]

In 4 (Every Time)
\[ Dm7 \quad E^9/7 \quad A7 \quad E^9/7 \quad A7 \quad A^9/7/D \quad D7(b9) \]
Solo Section Continued

\begin{align*}
&\text{EN. SAX.} \\
&\text{VLN. I} \\
&\text{VLN. II} \\
&\text{VLA.} \\
&\text{VC.} \\
&\text{PNO.} \\
&\text{A. BASS} \\
&\text{(String Backgrounds)} \\
&\text{Dr.}
\end{align*}

F\% \quad \text{D}\% \quad \text{Bb7(sus4)} \quad \text{C7(sus4)} \quad \text{C7(b9)}
Drum Solo
(Strings Play Sustained Chords)
Improvisation Around Melody

Gb 7 (SUS 4)  F7  Eb 7

Gb 7 (SUS 4)  F7  Eb 7

Gb 7 (SUS 4)  F7  Eb 7

Gb 7 (SUS 4)  F7  Eb 7
Appendix C

C1: Lead Sheet/Condensed Score
Reductions of The XenDen Suite
Part 1: Tebrocnala Lead Sheet

Troy Roberts

\[ E C^7 A^7 B7(\text{b9}) \]

\[ q = 60 \text{ Ballad} \]

\[ E C^7 B7(\text{b9}) B13(\text{b9}) \]

\[ C\text{©}7 E\text{©}Ø7 A\text{©}13(\text{b9}) F\text{©}º7 E D7(\text{b9}) \]

\[ G^7 C^7 C\text{©}Ø7 C7(#11) B7(\text{b9}) B7 \]

\[ F\text{©}º7 B7(\text{b9}) B7 E^7 E7 A^7 A\text{©}7 D7(\text{b9}) \]

\[ G7(\text{b9}) \]

\[ \text{Part 1: Tebrocnala Lead Sheet} \]

\[ E \text{©}Ø7 A\text{©}7 B7(\text{b9}) B7(\text{b9}) \]

\[ C\text{©}Ø7 E\text{©}º7 A\text{©}13(\text{b9}) F\text{©}º7 E D7(\text{b9}) \]

\[ G^7 C^7 C\text{©}Ø7 C7(#11) B7(\text{b9}) B7(\text{b9}) \]

\[ F\text{©}º7 B7(\text{b9}) B7 E^7 E7 A^7 A\text{©}7 D7(\text{b9}) \]

\[ G7(\text{b9}) \]

\[ E \text{©}Ø7 A\text{©}7 B7(\text{b9}) B7(\text{b9}) \]
Part 2: Freebie Lead Sheet

Troy Roberts

Fast Jazz

\[ \text{D7} \quad \text{G^7} \quad \text{E} \text{b} \text{A} \text{7} \]

\[ \text{D7} \quad \text{G^7} \quad \text{E} \text{b} \text{A} \text{7} \]

\[ \text{D7} \quad \text{G^7} \quad \text{E} \text{b} \text{A} \text{7} \]

\[ \text{D7} \quad \text{G^7} \quad \text{E} \text{b} \text{A} \text{7} \]

\[ \text{D7} \quad \text{G^7} \quad \text{E} \text{b} \text{A} \text{7} \]

\[ \text{D7} \quad \text{G^7} \quad \text{E} \text{b} \text{A} \text{7} \]

\[ \text{D7} \quad \text{G^7} \quad \text{E} \text{b} \text{A} \text{7} \]

\[ \text{D7} \quad \text{G^7} \quad \text{E} \text{b} \text{A} \text{7} \]

\[ \text{D7} \quad \text{G^7} \quad \text{E} \text{b} \text{A} \text{7} \]

\[ \text{D7} \quad \text{G^7} \quad \text{E} \text{b} \text{A} \text{7} \]

\[ \text{D7} \quad \text{G^7} \quad \text{E} \text{b} \text{A} \text{7} \]

\[ \text{D7} \quad \text{G^7} \quad \text{E} \text{b} \text{A} \text{7} \]

\[ \text{D7} \quad \text{G^7} \quad \text{E} \text{b} \text{A} \text{7} \]

\[ \text{D7} \quad \text{G^7} \quad \text{E} \text{b} \text{A} \text{7} \]
Broken Fast Swing

A

23 Gm7

Eb7 F7(b9) Gm7 Ebm7 F7(b5)

27 Gm7

Eb7 C7

31 Eb F

Piano/Bass

35 Gm7

Cm7 F7(b5) Bb7 Eb7 A7(b5)

B

39 D7(b5) Gm11 C9 F Bb7 E7 A7(b5)
12/8 Feel

Broken Fast Swing

(Piano/Bass)

(Piano/Bass)
Drum Solo

181

Tutti Section

197

193

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PART 3: FEB 19 LEAD SHEET

TROY ROBERTS

A

Pizz. (Cellos)

Arco (Viola)

B

Pizz. (Cello)

Arco (Viola)

Notes:
1. Pizzicato:
   - G
   - E
   - D
   - B
   - A
   - G

2. Arco:
   - A
   - E
   - B
   - E
   - A
   - D

3. (Viola):
   - F
   - C
   - G
   - D
   - A
   - E

4. Viola:
   - D
   - G
   - C
   - F
   - A
   - E
PART 4: MEMORIALISATION LEAD SHEET

COMPOSED BY TROY ROBERTS
TRANSCRIBED BY MICHAEL CRAWFORD

Intro

Drums Pick-Up

Gm7 Bb7 (Violins/Cello)

(Sax/Piano)

Gm7 Bb7

(Simile)

Gm7 Bb7 E7 A7

Piano Fills

(Pizz. (Viola))

Gm7 Bb7 (4)

Gm7 Bb7

12 Gm7 Bb7

Piano Fills

(Gm7 Bb7)

18 Gm7 Bb7

Piano Fills

(Gm7 Bb7)

24 Gm7 Bb7

Piano Fills

27 Eb7 Ab7

Gm7 Bb7 (SUS4) E7 (SUS4) Bb

Gm7 Bb7

Gm7 Bb7

Gm7 Bb7
Part 5: Villa Lead Sheet

(Tax)

(Eb add)

6

(Eb add)

10

(Eb add)

14

(Eb add)

19

(Eb add)

23

(Eb add)

27

(Eb add)

31

(Piano)

Drum Fill
Piano Solo

D\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\:\\3
BASS AND SAX SOLO

BASS AND SAX UNISON
Part 7: La Brecaton Minute Lead Sheet

Troy Roberts

Bar 5:

Bar 9:

[Part A]

Bar 13:

Bar 17:

(Sax) (Strings)

Bar 21:

[Sax]

(Stings) (Sax)

Bar 24:

[Db7] [Ebm7] [Ab7/Gus]
**Part 8: Finale Lead Sheet**

Troy Roberts

[Sax and Drums Improv.]

- **Open Repeat.**

- **Fast Swing**

- **Saxophone and Drums Improvisation**

- **ECM/Half Time Backbeat**

- **Tebrocnala**

- **F#5**

- **Bb5**

- **C7(GUS4)**

- **C13(b9)**

- **A7($\flat7$)**
The Scotsman's Waltz

Sax Improvises Around Melody

Play Bluesy Stuff
Appendix D

D1: Analysed Transcriptions of the Sax Solos from The XenDen Suite
PART 1: TEBROCNALE SOLO (B FLAT TRANPOSITION)

Soprano: C# Major Pentatonic

Harmonic Anticipation

Thinking B Major 7

Sequence

Delayed

Motivic Development

Etc.
PART 2: FREEBIE SOLO (B FLAT TRANPOSITION)  
TROY ROBERTS  
TRANSCRIBED BY MICHAEL CRAWFORD

Tenor Saxophone

CMAR

SEQUENCE/LINEAR CHROMATICISM

Am7

F#7

E7

F#7

D7

6

G7  E7

10

A‹7  D‹7  G7  C^7  F^7  BØ7  E7

14

A‹7  A‹7/G  F©Ø7  B7

19

E‹7  F©Ø7  B7

22

E‹7  F©Ø7  B7

26

D‹7  G7  F‹7

30

Bb7  Eb^7

33

G7(“4)

36

Sequence/Linear Chromaticism

Part 2: Freebie Solo (B Flat Transposition) Troy Roberts

Transcribed By Michael Crawford

CMAR

Bebop Scale

Chromatic Embellishment (Similar To Enclosures)

Change Running (Gsus4)

Sequence (Same As At Start)

Sequence/Linear Chromaticism

Extended Enclosure

Bebop Lick (Altered Scale)

Enclosures

Digital Pattern/Pentatonic

Digital Pattern

Digital Pattern With Rhythm

Digital Pattern With Bebop Scale

Harmonic Anticipation/Dominant Bebop Scale

CMAR
Using A Harmonic Minor

§

Motivic Development

Using V Altered

Transposed Sequence (Using vii Altered)

Outside Playing

Linear Chromaticism

Thinking Rhythmically (Rather Than Harmonically)

Sequence (Using V Altered)

Transposed Sequence (Using vii Altered)

Outside Playing

Motivic Development

Thinking Rhythmically (Rather Than Harmonically)
Sax Cadenza

Based Around 5th Mode Of Harmonic Minor (E Double Harmonic Major)

(Run Down B Ionian Concert) ETC.
Playing More Inside The Chords (i.e. Not Harmonically Generalising)

Sequence

Sequence

Sequence

Sequence

Bass and Sax Solo

Thinking Of Tritone Substitution (D♭)

Sequence

Sequence

Sequence
Pattern Is 5 Quavers Long, Uneven Length Makes Subsequent Repeats Start On Different Beats

Sequence

Scalar Pattern

Scalar Pattern (Starting On Different Beat)

Sequence

Sequence

Sequence

Sequence

D7 Altered (V Chord)

(DOutside Playing)

Sequence

(DInside Playing)

Sequence

Sequence

Sequence

D7alt (V Chord)

D7 (V CHord)

Enclosure

Bebop Scale

Dominant Bebop Scale

Enclosure

Swing

3

Lydian

**Dominant Bebop Scale**

**Enclosure**

**Swing**

3

**Lydian**
Part 6: The Scotsman’s Waltz Solo

Troy Roberts
Transcribed by Michael Crawford

Tenor Saxophone

D^7 G‹%/D D^7 G‹%/D
B‹7 F©7(#9) G‹7 C7
6
F^7 B¨‹7 EØ7 A7
10
B¨^7 C7(“4) A7 D‹7 G7
14
B¨^7 C7(“4) GØ7 F^7 D©‹7 G©7
18
C©^7 F©‹%/C© C©^7
22
D^7 B‹7 F©7
26
B‹7 E‹7 A7
30
D^7 G^7 C©Ø7 F©7
34
G©‹7
38
G©7 C©^7 F©7
42
Em7 A7
46
D^7 G‹%/D

Bebop Scale

Bebop Scale
Enclosure

Harmonic Delaying
Enclosure

Metric Modulation

Harmonic Delaying

Thinking of II (    )

Harmonic Anticipation

5th Mode of Harmonic Minor

Extended Enclosure

Altered Scale

Sequence

Enclosure

Extended Enclosure

Harmonic Generalisation (    )

Bebop Scale

Sequence

Sequence

sequence

Extended Enclosure

Etc.
Outside Playing (B Major)

Outside Playing (B Major) With Chromatic Passing Tones

(String Backgrounds Start)

Outside Playing (F Minor)
Growl

Metric Modulation

Extended Enclosure

(String Backgrounds Move Faster Harmonically?)

Extended Enclosure

Extended Enclosure

Extended Enclosure

Sequence
Tenor Saxophone

137 B^7 A¨^7 H

139 B^7 E¨^7(#5) A¨^7 F^7 D^7

141 A¨^7 143 D^7 A7(b9“4) A‹7

145 Metric Modulation

Sequence (Melodic Development)

Same As In Bar 139

Sequence (Melodic Development)
Part 8: Finale Solo (Intro)

Troy Roberts

Transcribed by Michael Crawford

Tenor Saxophone

\[ \text{Sequence} \]

((Solo Sax))

\[ \text{Sequence (Melodic Development)} \]

5

\[ \text{Sequence} \]

\[ \text{Sequence} \]

\[ \text{Sequence} \]

7

((Drums))

\[ \text{Sequence} \]

\[ \text{Sequence (Melodic Development)} \]

14

\[ \text{Sequence} \]

\[ \text{Sequence (Melodic Development)} \]

17

((Solo Sax))

\[ \text{Sequence} \]

\[ \text{Sequence (Melodic Development)} \]

21

((Drums))

\[ \text{Sequence} \]

\[ \text{Sequence} \]

\[ \text{Sequence} \]

25

\[ \text{Enclosure} \]

\[ \text{Enclosure} \]

\[ \text{Enclosure} \]

33

\[ \text{Enclosure} \]

\[ \text{(Cowbell)} \]

\[ \text{Enclosure} \]

\[ \text{Enclosure} \]

37

\[ \text{Enclosure} \]

\[ \text{Sequence} \]

\[ \text{Sequence} \]

\[ \text{Sequence} \]

\[ \text{Sequence} \]

\[ \text{Enclosure} \]

\[ \text{Enclosure} \]

\[ \text{Enclosure} \]
Appendix E
**E1: Composition Notes**

*Compositions based on pieces from Troy Roberts’ album “The XenDen Suite”*

For all of these compositions, I used elements of Roberts’ compositions (which have been identified and described in my exegesis: Critical Analysis of the Compositional Techniques and Devices used in Troy Roberts’ album ‘The XenDen Suite’), combined with my own original material to create compositions based on and inspired by The XenDen Suite.

I chose to write 4 original tunes based on parts 1, 2, 5 and 6 of the XenDen Suite, using the main compositional elements of each of these pieces as guidelines for my own compositions.

My objective was to try and use the ideas and concepts behind Roberts’ pieces to write something that sounds like The XenDen Suite, but without copying his music verbatim. In order to achieve this, I focussed particularly on how Roberts uses compositional devices, in order for me to apply the same concepts to my own material.

Some of the ideas and concepts from the XenDen Suite that I decided to use in almost the exact same way for my compositions are: the overall form of the pieces, the genre/style of the pieces, the instrumentation for various sections.

Some of the compositional devices and ideas from the XenDen Suite that I decided to use in different ways are: use of implied rhythmic subdivision, use of particular chord/scale as a compositional theme, application of standard piano 4-note voicings to the string section, use of anticipation, use of pedal points, use of transposition etc.

**Composition Part 1**

This piece is based on Part 1: Tebrocna, i.e. a ballad. Like Tebrocna, this piece begins with a sax and piano introduction, and then brings in the rest of the rhythm section for the B section.

Some concepts used in Tebrocna that I applied to this piece are: changing to the relative minor at the start or the B section, avoiding resolution to the I chord for very long at the end of the form, introducing the strings at the start of the solo section, and using sparse piano improvisation at the end of the form.

**Composition Part 2**

This piece is an up-tempo swing tune, like it’s original predecessor: Part 2: Freebie. One of the main devices used in Freebie is that of implying different rhythmic subdivisions (including metric modulations, hemiola, and meter changes), and I used this concept in my composition in various ways (in the melody, full band hits implying metric modulation, implied meter changes, and rhythmic harmonic movement to create hemiola). The main melodic rhythm in Freebie is used in my composition, but in a different way (i.e. by starting on beat 3 as opposed to the “and” of beat 1).

In Freebie, the main theme (i.e. sections A and C) usually ends with a “pedal point” type device, and I used this idea for the equivalent section of my composition, but over 3 chords instead of 1. The use of the bass and sax to play the melody in unison is also applied to my composition, in basically the same format. The final riff or phrase in the melody of Freebie is based on a repeating pentatonic pattern, which is played by the piano and sax. This instrumentation is kept the same in my composition, but instead of a pentatonic, the phrase uses a repeating pattern of different types of triads.
**Composition Part 5**
This piece is based on Part 5: Villa, which uses a particular cluster chord (usually Ebadd4, but the addition of various bass notes are used to imply different chords) and a relative scale (Mixolydian b6) as the main theme or idea, of which almost all the material of the piece is comprised. In my composition, the cluster chord used is D(b6) which, like Ebadd4, is a major triad with an extra semitone cluster. The scale used is the 5th mode of Harmonic Minor, but this scale is not adhered to as strictly as in Part 5: Villa.

In the saxophone melody of Villa, the rhythms create a hemiola, and I used this idea in different ways in my composition (i.e. the sax melody at section C, the chord movement at section C, the bass line at section E and F).

The various contrasting sections in Villa are used very similarly in my composition, until section E. At first I used the same types of ideas as Villa (i.e. pizzicato strings playing a static chord over changing harmony from the piano and bass, saxophone improvised “trades” with the piano/bass riff, the unexpected change to an unrelated Major chord in the middle of a phrase), but then in section F I added more harmonic movement (i.e. chords in the piano), and used a sustained unison note in the strings to build intensity.

**Composition Part 6**
Like Part 6: The Scotsman's Waltz, my composition starts off with a string quartet intro that leans towards the classical idiom (with the occasional "jazz chord" or harmony), which quotes several parts of the melody. Several arranging techniques are used in much the same way, i.e. a melody being played in parallel 4ths by the violins, and a final 3 chords that move downwards in range, and in harmonic density (i.e. polyphony decreases with each subsequent chord).

The Scotsman’s Waltz has a melody stated by the saxophone, which is then reiterated by a combination of a concert flute, an alto flute and a female voice, and sometimes the 1st Violin. This melody goes through different keys through the use of transposition, ending on the home key. All these ideas are used in the same way in my composition. The main point of difference in terms of sections (between the Scotsman’s Waltz and my composition) is the addition of an 8 bar pedal-point section (used as a “tag” on the end of the form).

From section E onwards in my composition, the form/sections are very similar to The Scotsman’s Waltz (i.e. just strings and sax playing a repeated 4 bar progression from the melody, and eventually ending on an unexpected/unrelated minor chord, which is a quintal voicing).
E2: Full Scores of Compositions
Composition Part 2

Composed by Michael Crawford
Inspired by Troy Roberts

\[=\text{Tempo}\]

\[\text{Up Swing}\]

- **Intro**

- **Tenor Saxophone**

- **Violin I**

- **Violin II**

- **Viola**

- **Violoncello**

- **Piano**

- **Acoustic Bass**

- **Drums**

\[A\text{b7}, Gm7, Fm7, G7, SUS4, A\text{b7}, E\text{badd9/G}\]

\[\text{Strings}\]

\[\text{Time}\]
Ten. Sax.

Vln. I

Vln. II

Vla.

Vc.

Pno.

A. Bass

Dr.
Ten. Sax.

Vln. I

Vln. II

Vla.

Vc.

Pno. (Gb add 9) F7(sus4)

A. Bass (Gb add 9) F7(sus4)

Dr.