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## Explorations in double-stops: Three new pieces for expanding the role of the double bass in the jazz ensemble

Ashley de Neef  
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# Explorations in Double-Stops: Three new pieces for expanding the role of the double bass in the jazz ensemble

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This dissertation and compact disc are submitted for the degree of Bachelor of Music Honours  
2014

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# Abstract

This dissertation investigates the potential for using double-stops - the sounding of two or more simultaneous notes - as a means for extending the traditional role of the double bass, within compositions for a small jazz ensemble. It is the contention of this dissertation that it is possible to use double-stops to perform a more advanced function within the jazz ensemble, without compromising the double bass' primary harmonic and rhythmic duties.

A historical overview of the history of the double bass within western classical and jazz music will be provided, as to outline and define what the double bass' role in jazz is. This shall occur with reference to seminal artists who furthered the development of the double bass conceptually.

Research on double-stop techniques is documented, including specific technical information, conceptual usage, and potential limitations of the techniques, as well as recorded examples of their performance. Through undertaking this research process, three new pieces will be produced for jazz ensemble, which incorporate double-stops into the composed material, as a means for extending the role of the double bass.

The process of producing these pieces will be documented with reference to the specific difficulties associated with double-stop performance, and how these are overcome, as to allow for successful and effective performance of these techniques.

The dissertation will conclude with an evaluation of the success of the compositions in extending the role of the double bass, as determined by an analysis of a performance of the material.

All scores and recordings are attached, as well as a discography for further listening.

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# Introduction

The double bass is an instrument that is indispensable in many different genres of music. It became a permanent fixture of European orchestral music post-1800, was an instrumental part of the development of jazz from the late 1920s, was present at the birth of Rock n' Roll, and is common in South-American musics such as Salsa. The key to the double bass' flexibility and ubiquity in jazz lies in its fundamental functions; as the provider of both rhythmic and harmonic motions.

*The bass provides the harmonic foundation for the jazz ensemble. It is the backbone of the jazz ensemble. At the same time, it has a rhythmic task.<sup>1</sup>*

*- Joachim Berendt, 1953*

## **Rhythmic Function**

The creation of the first double basses in the 16th Century, known as a bassviolin in France or violone in Italy<sup>2</sup>, was intended to lend extra weight and power to the string ensemble. Within this music, the bass would perform the 'basso continuo', often in octave doubling with the cello, which is a pre-written bass line that continues throughout the piece, providing harmonic accompaniment as well as a steady pulse upon which the melodic passages would be based<sup>3</sup>.

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<sup>1</sup> Berendt, Joachim Ernst. *The Jazz Book; from New Orleans to Rock and Free Jazz*,. New York: L. Hill; [distributed by Independent Publishers Group], 1975.

<sup>2</sup> For further reading see, Brun, Paul. *A New History of the Double Bass*. Villeneuve D'Ascq: P. Brun Productions, 2000.

<sup>3</sup> Peter Williams and David Ledbetter. "Continuo." *Grove Music Online*. Oxford Music Online. Oxford University Press, accessed October 29, 2014, <http://www.oxfordmusiconline.com.ezproxy.ecu.edu.au/subscriber/article/grove/music/06353>.

French orchestral bassist, Paul Brun, notes that as the double bass developed as an instrument in the 17<sup>th</sup> and 18<sup>th</sup> centuries, it became recognised more thoroughly for its unique abilities, and adapted a “newfound role as [a] propulsive instrument”, and it “...soon became the indispensable throbbing heart, providing new life to all parts of the orchestra”<sup>4</sup>.

This recognition of the double bass as a most valuable instrument for time-keeping was reflected in its introduction into jazz music in the late 1910s and early 1920s. Prior to the incorporation of the double bass, the bass function in jazz music was held by the tuba, which came from the marching band tradition present in New Orleans, in the early 20<sup>th</sup> Century. One interpretation of why the double bass replaced the tuba is in the rhythmic accuracy of the bass, as put forth by jazz historian Joachim Berendt;

“Since the plucked string bass can fulfill this rhythmic function with more precision than the blown tuba, bass replaced the tuba...”<sup>5</sup>

## **Harmonic Function**

Within jazz, the double bass not only acted as the “throbbing heart” of the band, but it also outlined the basic harmonic movement of a composition. In the earliest examples of jazz, such as *Grandpa’s Spells*<sup>6</sup> by Jelly Roll Morton, the bass played two notes to a bar (on beats 1 and 3) which came to be known as the ‘two feel’, in order to best outline the harmonic progression, or chord changes. Jazz music at this time typically had one or two chords per bar, and in most instances the bass would outline the root and 5<sup>th</sup> of a chord, and on occasion the 3<sup>rd</sup>, as to give the most

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<sup>4</sup> Brun, Paul. *A New History of the Double Bass*. Villeneuve D'Ascq: P. Brun Productions, 2000.

<sup>5</sup> Berendt, Joachim Ernst. *The Jazz Book; from New Orleans to Rock and Free Jazz*,. New York: L. Hill; [distributed by Independent Publishers Group], 1975.

<sup>6</sup> Jelly Roll Morton, *Grandpa’s Spells*, BVE37255, 1926, Vinyl

accurate representation of the harmony.

The two-feel developed into a style known as 'walking' in the early 1930's particularly due to the work of bassist Walter Page, who gained fame through the Count Basie Orchestra, and is largely known as the pioneer of the four beats to a bar – or walking bass – style. This method of playing allowed bassists to not only contribute more actively to the rhythmic propulsion of a piece, but also provide greater detail to a harmonic progression, due to the simple fact of having more notes with which to describe a chord, in any given bar.<sup>7</sup>

This position as the harmonic and rhythmic support for the ensemble has come to be the definitive role of the double bass in jazz music, and it the role that the instrument is best suited to. This dissertation shall refer to these dual responsibilities, as the primary functions of the double bass. Any discussion of an extension of the bass role must include a preservation of these two fundamental elements.

### **The Bass Solo – A New Role**

The double bass has also been conceived of as a solo instrument, and despite its cumbersome size and excessive physicality, it is capable of particularly intricate and beautiful melodic statements. The double bass' soloing history begins with the musicianship of Domenico Dragonetti, in the early 19<sup>th</sup> Century, and Giovanni Bottesini in the mid 19<sup>th</sup> Century, who were known as the first double bass virtuosos - both of which far surpassed the technical expectations for the day on the instrument. Through the success of these two musicians, double bass came to be recognised as a

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<sup>7</sup> For Further Reading: Chevan, David. "The Double Bass as a Solo Instrument in Early Jazz." *The Black Perspective in Music* 17, no. 1/2 (1989): 73-92.

solo instrument, and works were written by and for Dragonetti and Bottesini, that would showcase their abilities in small ensembles, or even with an orchestra. One such example of this is Bottesini's *Gran Duo Concertante*<sup>8</sup> for two double basses, which is so technically demanding for the bass, that one part is most frequently performed on violin.

The influence of these two bassists in the classical world is matched by the influence of Jimmy Blanton in the jazz world, who also repositioned the double bass as a solo instrument. Through his recorded output in the Duke Ellington Orchestra, between 1939 and 1942, Blanton demonstrated a new rhythmic and technical conception for the instrument that can be heard on such tracks as *Jack the Bear*<sup>9</sup>, *Sepia Panorama*<sup>10</sup>, and throughout his duo recordings with Duke Ellington.

Whilst the output and influence of Dragonetti, Bottesini and Blanton demonstrate how the double bass may take a leading melodic role in an ensemble, this will inevitably draw the bass away from its primary functions; supporting the ensemble.

This dissertation seeks to explore the potential for extending the functions of the double bass through double-stops, without hindering its primary functions of rhythmic and harmonic specificity.

### **Double-stops - Extending the Primary Function**

One potential method for exploring this possibility, lies in the use of double-stops, which can be broadly described as the sounding of two simultaneous notes, a technique that is uncommon to

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<sup>8</sup> Bottesini, Giovanni. 1981. *Grand duo concertant: for violin and double bass*. Cincinnati, Ohio: Liben Music Publishers.

<sup>9</sup> Duke Ellington, *Jack the Bear*, 45xMX641, 1940, Vinyl

<sup>10</sup> Duke Ellington, *Sepia Panorama*, BS054625-2, 1940, Vinyl

the double bass.<sup>11</sup> By utilizing three or four strings, these can become triple- or quadruple-stops, however the technical requirements for these are broadly the same, and as such all instances of double-, triple- and quadruple-stops shall be referred to simply as double-stops.

Through the use of double-stops it is possible to expand on the role of the double bass in several ways:

- Firstly, the inclusion of an extra note can allow the bass to outline with greater detail a particular chord or chord progression,
- Secondly, this ability theoretically allows for not only homophony but also polyphony, and the potential for two independent voices on the same double bass is a concept that is not largely explored. This would possibly allow the bass to continue its traditional supporting role, but also perform a simultaneous melodic statement – which would represent an extension of the role of the bass.
- Lastly, it is possible to create a spectrum of different effects with the use of double-stops, which can enhance and vary the tone achievable on the instrument. In combination with bass lines or similar accompanying passages, this can present an interesting variation on a traditional role.

Within jazz, examples of double-stops typically occur in two different situations. Firstly, as an alternative texture in the bassist's arsenal, simple double-stops can be improvised to accompany other instruments, which is heard very clearly in the playing of Ron Carter on Dexter Gordon's *Call Sheet Blues*<sup>12</sup>. In this recording Carter performs an extended passage of 10ths through the blues form to accompany Dexter's soloing. This approach is often also demonstrated in different ways

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<sup>11</sup> For Further Reading, Peter Walls. "Multiple stopping." *Grove Music Online*. *Oxford Music Online*. Oxford University Press, accessed October 29, 2014, <http://www.oxfordmusiconline.com.ezproxy.ecu.edu.au/subscriber/article/grove/music/19345>.

<sup>12</sup> Dexter Gordon, *The Other Side of Round Midnight*, BT 85135 1986, Vinyl

by bassist Red Mitchell, who frequently utilises double-stops in his solo and duo recordings.<sup>13</sup>

Secondly double-stop usage has been heavily explored within the realm of solo bass performances, and these performances are often thoroughly composed, as to frame the bass and the double-stops in the most effective way possible. The composition and arranging process allows the performer to give due consideration to the limitations and advantages of each technique.

Notable exponents of this approach include Betram Turetzky, Mark Dresser, Dave Holland, Lynn Seaton and Ron Carter – all of whom have found ways of performing melodic and accompanying material on the bass, whether in homophony or polyphony. For specific songs and albums please see the discography section of this dissertation, which provides a selection of influential double-stop recordings.

However the use of double-stops in composed material for jazz ensemble has not been explored fully. This is likely to be due to the very clear function of the bass in the jazz ensemble, and the need to preserve this role in almost all instances. Further to this are several technical difficulties that are inherent in double-stop performance, which will be discussed in greater detail later on.

One excellent example of double-stops being used in an ensemble situation exists in bassist Sam Anning's track *Tomorrow is a New Day*<sup>14</sup> from his 2006 album, *Re-turning Point*.

In this track, Anning performs an ostinato that incorporates double-stops, adding an extra voice and element to a common approach towards bass-playing. Not only does Anning's composition demonstrate a use of double-stops to extend the primary role of the double bass, but it also

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<sup>13</sup> Clark Terry and Red Mitchell, *Sophisticated Lady*, 1987, YouTube.com, accessed 29<sup>th</sup> October 2014, <https://www.youtube.com/watch?v=L-9IpCbE8Z4>

<sup>14</sup> Anning, Sam. "Tomorrow Is a New Day." In *Re-turning Point*: Listen Hear Collective, 2011.

frames this usage cleverly in the composition. The melodic fragments played by the trumpet and alto allow a significant amount of space for the double bass to feature, either in call and response or in homophony with the horns.

The success of *Tomorrow is a New Day* is achieved through careful composition and orchestration, and the author believes that this is the most successful example of double-stops being used to expand the role of the bass available at present. Furthermore, this composed sound is largely unexplored and represents a possible avenue for extending the role of the bass, without compromising its primary functions.

### **The Purpose of this Dissertation**

This dissertation intends to further explore the use of double-stops in composition for jazz ensemble, as means for extending the role of the double bass. It will do this by examining and documenting double-stop techniques, the potential problems that arise in trying to perform double-stops, and considerations that need to be made in performing them. In doing so a deeper understanding of double-stop techniques will be attained, from which three pieces will be composed, which seek to demonstrate in different ways, how double-stops can be used to extend the role of the double bass.



## Part II - Methodology

From this point, this dissertation will be separated into two sections.

First, *Explorations in Double-Stops* will be the documentation of the majority of research undertaken in this field. It will investigate the techniques, limitations and conceptual uses of double-stops as well as anticipating potential problems in performing double-stops. Furthermore it will discuss what sort of musical environments favour the usage of double-stops, and define the ensemble limitations of the composition process.

Secondly, *Exegesis* will document the process of composing three new pieces for jazz ensemble, in which double-stops are used as a method of expanding the role of the double bass.

These compositions will be required to meet a set of criteria, from which they will be analysed:

- Does the piece represent an extension of the primary bass role through double-stop techniques?
- Does the piece address all the problems associated with double-stop techniques?
- Is the composition able to be performed live accurately, without the use of electronics or pre-recorded elements?
- Does the piece flow musically and does the use of double-stops aid the direction of the music?
- Is the piece significantly different from the others presented here, in conceptual use of

double-stops, and in mood of piece?

The intention of this final question is to separate the three pieces by conceptual usage of double-stops, and in their overall mood and feel, to ascertain whether or not different types of music can be created from utilising double-stop techniques in this manner.

This set of criteria will be used to assess a performance of the pieces from October 7<sup>th</sup> 2014.

Comments on the overall success of the compositional task will follow, as well as suggestions for further research. All scores and recordings will be appended, as well as a selected discography for further listening.

## **Literature Review**

This chapter seeks to document and compile the most relevant sources used in this research, and is broken up into three sections: historical context, bass technique and recorded examples.

### **Historical Context**

Paul Brun's book *A New History of the Double Bass*<sup>15</sup> provided an excellent explanation of the development of the double bass throughout the 17th and 18th Centuries, its strengths, weaknesses and functions, and how it came to hold a position in the orchestra of today. Brun's work also points to the artists Domenico Dragonetti and Giovanni Bottesini, both of whom were crucial artists in the development of the classical double bass repertoire.

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<sup>15</sup> Brun, Paul. *A New History of the Double Bass*. Villeneuve D'Ascq: P. Brun Productions, 2000.

An article in the publication *The Black Perspective in Music*<sup>16</sup> by David Chevan, entitled *The Double Bass as a Solo Instrument in Early Jazz* gives an in-depth look at how the double bass' role expanded from one of harmonic time-keeping, to that of the occasional soloist. It also explains the advancements that occurred between 1926 and 1939 in bass technique, and those who caused them. This article provided a lot of context as to the development of the bass in this soloist role, which is often thought to not have existed pre-1939, and especially with respect to the popularity of performance styles such as slap bass.

Joachim Berendt's book *The Jazz Book*<sup>17</sup>, provided a good resource on the function of the bass in jazz, as well as some notes on the lineage of jazz bass players from Blanton onwards.

## **Bass Technique**

The sections of this dissertation which refer to specific technical details of double-stop performance are drawn from two major sources. Primarily, modern double bass virtuoso Bertram Turetzky's book *The Contemporary Double Bass*<sup>18</sup>, which gives a broad overview of many different techniques used by the contemporary double bassist, regardless of genre. It covers areas such as double-stops, harmonics, alternative pizzicato techniques, alternative arco techniques, as well as the various percussive techniques of the bass. This publication is considered to be the most current synthesis of a vast array of extended techniques for the double bass and was particularly instructive in finding new ways in which to articulate double-stops.

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<sup>16</sup> For Further Reading: Chevan, David. "The Double Bass as a Solo Instrument in Early Jazz." *The Black Perspective in Music* 17, no. 1/2 (1989): 73-92.

<sup>17</sup> Berendt, Joachim Ernst. *The Jazz Book; from New Orleans to Rock and Free Jazz*,. New York: L. Hill; [distributed by Independent Publishers Group], 1975.

<sup>18</sup> Turetzky, Bertram. *The Contemporary Contrabass*. University of California Press, 1989.

Significant amounts of information, including technical specifics, further reading, and notable recordings were found within Dr. Larry Ousley's 2008 Doctoral Thesis *Solo Techniques for Unaccompanied Pizzicato Jazz Double Bass*<sup>19</sup>. Ousley's thesis served as the initial inspiration for this research, due to its thorough approach to documenting techniques and recordings, as well as its in-depth and helpful bibliography.

Franz Simandl's *New Method for Double Bass*<sup>20</sup> should also be mentioned as a source of information regarding hand positioning and general bass technique. This book is an indispensable feature of double bass literature.

## **Recordings**

The importance of recordings of double-stop techniques to this research cannot be understated, and at many times, these proved to be the most valuable resources, especially for understanding how to apply double-stop techniques. A discography of notable recordings can be found under *Appendix 1 – Discography*.

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<sup>19</sup> Ousley, Larry James. "Solo Techniques for the Unaccompanied Pizzicato Jazz Double Bass." University of Miami, 2008.

<sup>20</sup> Simandl, Franz. *New Method for the Double Bass*. Carl Fischer, 1923.

## Part III – Double-stop Explorations

In order to proceed with investigations into the musical potential of double-stops a thorough examination of double-stop techniques must first occur. For ease this will be separated into articulations (predominantly right-hand activities), and note combinations (predominantly left-hand).

Specific technical information has been drawn heavily from Larry Ousley's 2008 dissertation *Solo Techniques for Unaccompanied Pizzicato Jazz Double Bass* and Betram Turetzky's 1989 manual for advanced double bass performance *The Contemporary Contrabass*.

### Articulations

#### **Rake**

This method is probably the most commonly used method for articulating double-stops, due to its similarity to traditional articulation methods, which makes it easier to execute in a live performance.

Right-hand fingers are drawn across multiple strings in one single arm movement, striking each string at slightly different times, but giving the effect of simultaneous attack.

This articulation works best with adjacent strings, but can be performed across other combinations just with an audible click from muted strings.

This can easily be employed for double, triple and quadruple stops, and requires very little conceptual or technical deviance from standard right hand practices.

The rake is similar to what is known as the “rest-stroke” (a term derived from classical guitar literature), whereby the fingers pull through the string and come to rest on the string below, which is the default attack for the majority of jazz bassists. However this is not the only method by which the rake articulation may be applied to double-stops; it can also be used in the following ways:

- Downwards with nail of thumb - arm moving towards body
- Upwards with pad of thumb – arm moving away from body
- Upwards with nail of first/second finger – arm moving away from body

Each variation will produce a slightly different tone, which will also be altered by the position of the articulation on the neck.

Furthermore upwards and downwards variations may be used in rapid combination (works best with thumb-thumb/finger-finger combinations) to produce a strumming effect reminiscent of flamenco guitar. This technique works particularly well with the lighter gauge strings and an articulation combination that uses a nail – which provides a brighter sound.

## **Free Stroke**

The other most common method of articulation is the free-stroke, a technique also drawn from classical guitar literature.

Ousley describes this stroke as a “plucking [of] a single note and drawing the finger into the air, rather than resting it on the subsequent next string”, and notes that this technique can be adapted to double-, triple- and quadruple-stops, and thus double-, triple- and quadruple-free strokes. These are most often performed with some combination of the first finger, middle finger

and thumb.

This articulation method attacks both strings simultaneously, unlike the rake, meaning that each string can be articulated with the same dynamic and intensity, and sound truly like a chord.

This free-stroke closely resembles the pizzicato technique of classical string players, and as such produces a similar tone – one that is round, and sustained, but with little initial attack.

Whilst the ringing out of a tone is beneficial in many situations, particularly those involved in solo performance, the lack of initial attack could make the double-stop difficult to hear within an ensemble passage.

The potential inclusion of the thumb and third finger in this articulation method may require some practice for inexperienced performers, as these fingers are commonly not used in such a manner. This articulation is the most practical decision when articulating a double-stop from the 'e' string, however this technique becomes significantly more difficult with higher notes, due to an increase in string tension.

Furthermore, care must be taken with all fingers to differentiate between a slap-bass technique, where the string strikes the finger-board after the initial attack, and the free-stroke, where the string vibrates freely. Pulling slightly towards the body when articulating and not simply upwards away from the fingerboard can help differentiate the two.

A great exponent of the double free-stroke method is Red Mitchell, who can be seen demonstrating this technique with great proficiency in a 1987 duo performance of *Sophisticated*

*Lady*<sup>21</sup> with Clark Terry. Mitchell's free-strokes are balanced, devoid of any slapping sounds, and quite audible within the music (though this could be attributed to heavy amplification and a duo setting).

One variation of the double free-stroke is to opt for two distinct single free-strokes, made in quick succession with the same finger. As with the rake, this relies on swift performance to give the effect of simultaneous attack, but can assure a greater control of tone for most attacks.

### **Bow:**

Also known as playing arco, the bow may also be used to articulate double-stops, however it is only practical to use it on two adjacent strings.<sup>22</sup> Use of the bow to perform double-stops on bass requires great control over the angle at which the bow intersects with the strings, as it must remain the same for evenness of sound.

Care must also be taken to the different levels of pressure and speed required to articulate each note, particularly when there is a large intervallic gap between the two notes, as to maintain consistency between volumes and articulations.

### **Left Hand Pizzicato:**

With a left-hand pizzicato technique, the left hand may (whilst already depressing a note if needed) use a finger to reach a different string and articulate, leaving the right hand free.

This technique is most effective with open strings and can be seen in a video of Ron Carter's solo

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<sup>21</sup> Mitchell, Red and Clark Terry. "Clark Terry & Red Mitchell "Sophisticated Lady" 1987." <https://www.youtube.com/watch?v=L-9IpCbE8Z4>, 2009.

<sup>22</sup> Whilst it is possible to use the bow from under the string to articulate the 'g' and 'e' strings simultaneously, this requires the bow to be used in a manner that is quite foreign to most performers. Its usage is beyond the scope of this dissertation.



treatment of *Willow Weep For Me*<sup>23</sup>, from Switzerland 1984, as Carter plays a C on the 'a' string, and uses his left-hand to articulate the open 'g' string.

Due to the position of the left-hand - which is often much closer to the end of the string than the right-hand - this attack produces a brighter, more trebly sound.

This technique is quite difficult to execute, and it is unlikely to be used unless it is necessary for the execution of a phrase. Some situations in which it would be necessary include when:

- The right is otherwise occupied, i.e. Through using the bow, or a difficult right-hand passage
- An interval is required which is unplayable with usual left-hand techniques. This can be overcome by the left-hand depressing the higher note, the right-hand depressing the lower note, and each hand articulating either its own note, or the other hand's note.
- A brighter attack is desired (which the left-hand pizzicato provides), and the note to be articulated is an open string.

The author has found the left-hand pizzicato to be very useful for fast switches between arco and pizzicato playing, where open strings are involved, as the right-hand is occupied in placing down the bow.

One possible expansion of this technique is the involvement of the right-hand in what are typically known to be left-hand duties; that is depressing strings prior to articulation. This technique is also seen in guitar literature, and is also known as a 'hammer-on'<sup>24</sup>, however it is not typical for a guitarist to articulate with their left-hand. A left-hand articulation of a note hammered-on by the right may be possible on double bass, provided the left-hand is positioned closer to the bridge

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<sup>23</sup> Carter, Ron. *Willow Weep for Me*. <https://www.youtube.com/watch?v=xPwp6YsraZw>, 1984.

<sup>24</sup> Vandenburg, Eric. *Talking Hands – A Guide to Contemporary Lead Guitar Techniques*. Lulu.com, 2006

than the hammered-on note.

Guitarists often employ a system of two-handed hammer-on's called 'tapping', in which the two hands alternate between hammer-on's for a fast legato effect, which either begins with a typical articulation or a hammer-on.

This technique is common in guitar solos in metal music, but has also been explored by Mark Dresser on double bass<sup>25</sup>.

Mark Dresser has also explored the potential double-stops that can be created by hammering on to un-muted strings, which he describes as bi-tones. These bi-tones are the result of both sides of the string around the point of depression vibrating simultaneously.<sup>26</sup>

Whether articulating with the left hand, using hammer-on's or tapping, significant practice will be required to achieve fluidity and musicality on the double bass.

Left-hand articulation may also be used with the bow, and has been implemented successfully by Francois Rabbath in his 1992 recording *'Live' Around the World*<sup>27</sup>. If the bowed note is on an open string, then the left-hand may depress a note and articulate the same note itself. However if the bowed note is on a depressed note then the, left-hand pizzicato must be on an open string.

### **Potential Double-stops**

For a description of potential intervallic combinations attainable using double-stop techniques, it will be assumed that the majority of performers utilise the Simandl fingering method, and have a

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<sup>25</sup> Dresser, Mark. Guts. Kadima Collective Recordings, 2010.

<sup>26</sup> *Ibid*

<sup>27</sup> Rabbath, Francois. *'Live' Around the World*. Red Hat, 1992

large-enough hand to meet the requirements of this position.

The Simandl method divides up the fingerboard of the double-bass into positions, beginning with half-position, with first finger on Ab on the 'g' string, (Eb, Bb and F on 'd' 'a' and 'e' strings respectively). Each position contains three notes per string, which are depressed with the first, second and fourth finger. For example half position on the 'g' string has the following finger and note combinations:

- Ab is depressed by first finger
- A is depressed by second finger
- Bb is depressed by fourth finger

The positions continue up the fingerboard, with each new position beginning with the first finger on the next semi tone higher, until thumb position, which begins at high g on the 'g' string, and has a different set of fingerings.

The left hand maintains this hand position under all typical situations, and the use of these positions helps to maintain accurate intonation.<sup>28</sup>

Listed below are the intervals available for double-stop performance within one left-hand position. Any deviations from Simandl fingerings are noted.

### **Adjacent Strings**

*Minor 3<sup>rd</sup>:*

- First finger on higher string, fourth finger on lower string

*Major 3<sup>rd</sup>:*

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<sup>28</sup> For more information regarding hand position: Simandl, Franz. New Method for the Double Bass Carl Fischer, 1923.

- First finger on higher string, second finger on lower string

*Perfect 4<sup>th</sup>:*

- Barring (that is depressing two strings with one finger) of any finger, or
- First finger on lower string, second finger on higher string. This requires a stretch of the second finger on the higher string to where the first finger would ordinarily be.

*Augmented 4<sup>th</sup>:*

- First finger on lower string, second finger on higher string

*Perfect 5<sup>th</sup>:*

- First finger on lower string, fourth finger on higher string

For a full list of possible fingerings, please see *Appendix 2 – List of Available Intervals for Double-Stops within one hand position*.

It should be noted that the use of left-hand pizzicato, and the subsequent use of the right-hand to depress a string, theoretically allows any combination of notes to be articulated as double-stops on the instrument. However the practical application of this technique is most likely limited due to its immense difficulty and low volume, particularly within an ensemble context.

## **Open Strings**

There are numerous benefits associated with the use of open strings in double-stops:

- The use of open strings again expands the number of intervals easily accessible as it is no longer necessary for all the notes of a double-stop to be located within the same hand position,
- Using open strings it is possible for performers to play low bass notes with the open

strings, and then tonally different melodic passages in the higher registers of the bass,

- Open strings also allow the performer to reorient his/her intonation with respect to an absolute pitch, which is one of the key difficulties with double-stop performance, and
- Furthermore, the open string resonates with a much fuller tone to that of the depressed string, adding a richness and depth to the sound.

One extremely common use of the open strings within double-stops is the use of the 'd' string as a drone, with shifting melodic notes on the 'g' string. This can be heard in bassist Charlie Haden's solo on *Ramblin'* from Ornette Coleman's 1960 album, *Change of the Century*<sup>29</sup>. Haden effectively uses the open string to anchor his melodic line, and provide extra rhythmic intensity and harmonic context to his melody.

## **Conceptual Uses of Double-stops**

The intention behind the use of double-stops, generally falls into three categories:

### **Harmony**

As previously outlined, one of the primary functions of the double bass in jazz is to outline the harmony, either through a chord progression, or in a more static tonality. This is achieved generally by playing the tonic of a chord, often followed by other chord and scale tones, to ground the harmony of a piece.

By performing two or more notes at once, the harmonic function of the bass can be extended by describing the harmony in greater detail. For example, with normal techniques the bass would

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<sup>29</sup> Coleman, Ornette. "Change of the Century." Atlantic, 1960.

typically just play an A over A7. But by incorporating double-stop techniques, it is now possible to play A and C# (I and III), A, C# and E (I, III, and V), A, C# and G (I, III and bVII) or A, E and G (I, V and bVII).

These four different voicings of the A7 chord all provide a different amount of harmonic detail, however all provide substantially more detail than the basic tonic.

There are numerous jazz bassists who excel at using double-stops to outline harmony, and more specifically, to describe a series of chord changes.

Some artists to investigate include Red Mitchell, Neils Henning Orsted Pederson and Lynn Seaton, who have embraced this harmonic concept and developed a way to negotiate the difficulties and range of the instrument to present a functional system for creating chordal accompaniment.

## **Polyphony**

With the introduction of a second note it is possible to perform two separate voices on the double bass.

Given the limitations on what notes can be played within one hand position, it is necessary to consider range and function of each line whilst attempting to create two separate lines. The easiest manner in which to do this would be to have a *melody line* played predominantly on the 'g' and 'd' strings, and an accompanying or *bass line* played predominantly on the 'e' and 'a' strings.

To increase clarity and ease of performance it may be preferable to have a simple bass line and a more complex melodic part. These parameters allow a distinction in register and tone between the two lines, which can be enhanced by the use of the open strings.

An excellent example of this approach can be heard in *I Concentrate on You*, by the Jeff Hamilton Trio.<sup>30</sup> Bassist Christoph Luty utilises polyphonic double-stop techniques in his solo by playing a melody line in thumb position on the 'g' string whilst accompanying himself with a typical samba bass line on the lower 'a' and 'e' strings. Luty's bass line maintains the harmonic progression and rhythmic momentum whilst occupying a different register to his melody part, creating the effect of two distinct lines.

It is possible to embrace a conception of polyphony that is not delineated so clearly into melody and accompanying part; where each voice is of equal importance. This conception may lead to pieces which have two voices of similar rhythmic complexity and which may come close to one another in register. Such pieces would need to be carefully planned as to preserve clarity of voice and tone.

It is difficult to find recorded examples of this concept demonstrated on double bass, however a great example of this sort of composition can be heard in any of the Two Part Inventions by Johann Sebastian Bach<sup>31</sup>, which have now become part of the classical guitar repertoire.

## Effects

It is also possible to create an array of sonic effects using double-stop techniques, however a comprehensive guide is yet to be created. This paper does not seek to catalogue all recorded examples of double-stops being used for effects, but rather present a few select examples of ways in which they may be used.

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<sup>30</sup> Hamilton, Jeff. "I Concentrate on You." In *The Best Things Happen*: Azica, 2004.

<sup>31</sup> Bach, Johann Sebastian. *Two Part Inventions*, BWV 772-786. Albert Edition, 1976

Slides and Double-stops: With careful attention paid to intonation, it is possible to glissando between two double-stops, which provides an alternative texture for moving between double-stops. It works most easily when the fingering stays the same and the hand changes.

One interpretation of this is heard often in the playing of Charles Mingus, who often plays octaves and slides with the top note to the next pitch center.



*Figure 1: Charles Mingus' octave slides*

The use of slides creates a flowing, almost unstable effect - as well as an unusual texture, which can be heard on Mingus's *E's Flat* and *Ah's Flat Too*<sup>32</sup>.

Strumming: As mentioned previously, one easily attainable effect using double-stops is that of a strumming guitar, which can sound similar to flamenco guitar styles; by using the first finger and nail or thumb and nail in alternation to rapidly articulate two adjacent double-stops. This can be heard clearly on Francois Rabbath's *Ode d'Espagne* from his 1992 album *Live Around the World*<sup>33</sup>, a piece intended to simulate the Spanish flamenco tradition.

Unisons: The use of unisons, where each note is articulated either alternately or in some pattern, is possible in the lower register using open strings, and in the higher register stretching with the thumb. The tone difference between the two strings creates an effect of playing two different

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<sup>32</sup> Mingus, Charles. "E's Flat and Ah's Flat Too." In *Blues and Roots*: Atlantic Records, 1960.

<sup>33</sup> Rabbath, Francois. "Ode d'Espagne." In *'Live' around the World*: Red Hat, 1992.



notes, whilst using the same pitch.

Furthermore, the ability to adjust the tuning of the unison interval can allow for some interesting effects, whereby a performer can slide up into a unison.

This effect is also taken from the guitar techniques, however guitarists typically bend a string up to the pitch, rather than sliding. This technique can be heard demonstrated by Chuck Berry on *Johnny B. Goode* in the opening solo.<sup>34</sup>

### **Difficulties associated with double-stop performance**

Despite the musical potential for double-stops, especially in extending the role of the double bass, they have not yet come to be a crucial part of the skill set required for the jazz bassist. This is due to a number of significant difficulties and challenges that are associated with performance of double-stops, which include: Projection, Intonation, Clarity, and Fatigue.

**Intonation:** Of primary concern to all double bassists, regardless of genre, technical proficiency or interest in double-stops is the need to articulate musical phrases with accurate intonation.

*"Accurate Intonation is one of the foundations of good acoustic bass playing"*

- John Goldsby<sup>35</sup>

Performing with consistent and accurate intonation is a skill that takes many years to perfect, and is a constant issue in the mind of the performing double bassist. This issue takes on all new

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<sup>34</sup> Berry, Chuck. "Johnny B. Goode." Chess, 1958.

<sup>35</sup> Goldsby, John. The Jazz Bass Book. Backbeat Books, 2002

importance when performing double-stops.

When bassists (and indeed all musicians who play instruments without fixed pitch) play a note, they instantaneously check its tuning against a pitch source, either remembered (the last note played) or heard (from another instrument). However when a bassist performs double-stops they must not only ensure good intonation outside of the double-stop, but also within the double-stop. Before each note can be tuned however the performer must aurally separate them from one another, and then tune from that point, as to ascertain whether one or both of the notes is out of tune. If the two notes are not distinguished from one another, and a performer attempts to tune the entire double-stop, it may compound the problem.

The issue of intonation of double-stops is further exacerbated when the left hand is forced to behave in a manner that does not align with the traditional hand technique, which is for many performers a guarantor of at least reasonable intonation. For example when articulating a Minor 10<sup>th</sup>, the fourth finger must deviate from its usual position by a tone, which leaves it far more susceptible to inaccurate tuning.

Use of the bow places an even greater spotlight on the intonation of a note, due to greater sustain, and as such, use with double-stops will further highlight any tuning inaccuracies.

This difficulty can be overcome, only through targeted, specific practice of intervals, particularly those that require the left hand to behave out of the ordinary.

**Clarity:** One issue that plagues the use of double-stops on double bass is a lack of clarity in pitch and interval, particularly in the lower registers. As the range drops, so too does the clarity of intervals. It is for this reason that the majority of these techniques occur on the 'd' and 'g' strings, particularly with use of the open 'd' string.

The tendency for low intervals to sound muddy is described in the harmonic series; the collection of overtones that sound when one strikes a single note (the fundamental). The harmonic series

operates in such a way that the first few overtones that resonate above the fundamental tone are spaced very widely – first in an octave, then a 5<sup>th</sup>, then a 4<sup>th</sup>, followed by a major 3<sup>rd</sup> etc. When a low double-stop is voiced it is important to know what intervals are being played, and understand that some notes (such as the octave for very low, 5<sup>th</sup> for slightly higher, and 4<sup>th</sup> for higher still,) will complement the natural mechanics of the harmonic series. Whereas, intervals other than those specified above voiced in the low to mid register of the bass will clash with the harmonic series, and sound muddy.

For example if one was trying to voice a major 3<sup>rd</sup> of C and E on the 'a' and 'd' strings respectively, the resultant sound would be muddy as the overtones of the E don't align with those of the C in this register. However if one voiced a perfect fifth of C and G on the same strings, the overtones (particularly the fundamental overtone) of the G would compliment and strengthen the overtones of the C.

As a general guide, most intervals can be articulated on the 'd' and 'g' strings without too much muddiness, but only intervals larger than a 4<sup>th</sup> should played from the 'a' string, and intervals larger than an octave from the 'e' string.



*Figure 2: Harmonic Series*

**Fatigue:** Performing double, triple and quadruple stops requires physical actions which can drastically diminish the stamina of a bass player, particularly when the specific intervals demand

large stretches, not capable within traditional left-hand technique. The drain on energy comes from the need to maintain pressure on all depressed strings in order to preserve tone and volume – which requires the bass player to work twice, three or four times as hard as in a standard single-note articulation.

This is something that must be anticipated when performing double-stops, and indeed composing for them, as the techniques associated cannot be performed indefinitely even by the most experienced of bassists.

One bassist who demonstrates extreme strength and stamina, which is carried over to his use of double-stops is Jimmy Garrison, who would frequently play long passages of double-stops whilst soloing in the John Coltrane Quartet. Garrison typically favored the perfect 5<sup>th</sup>, played on the 'd' and 'g' strings, as can be heard in his introductory solo to *Song of Praise*, from Coltrane's album, *The John Coltrane Quartet Plays*<sup>36</sup>.

It would be necessary for bassists new to double-stop techniques to spend a significant amount of time practicing them without break, as to strengthen the arm and hand for the different motions required.

**Projection:** With the exception of rake and arco articulations, which have their own inherent limitations, the articulatory methods used to perform double-stops generally do not produce the same level of volume as the typical rest stroke of a single string. For the large part this is likely due to the unfamiliarity of most bassists with the free-stroke or double free-stroke, and the difficulty in adapting these techniques adequately.

The general reduction in projection however is no issue in solo performance, when volume is set and controlled by the performer, but special considerations will need to be given to the articulation of non-adjacent double-stops in an ensemble setting.

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<sup>36</sup> Coltrane, John. "The John Coltrane Quartet Plays." Impulse, 1965.

### **Ensemble Considerations:**

All of the above issues will be affected significantly by the type of ensemble used, and considerations should be made either when selecting an ensemble, or selecting the appropriate time to use double-stop techniques. Higher-volume environments, such as those created by insensitive drums or electric guitar, will typically not favour the use of already dampened double-stop techniques, and indeed the performer will suffer more fatigue trying to clearly articulate double-stops in this environment.

The use of piano or guitar may contribute to a muddy sound, as their sonic spectrum is far wider than that of the double bass. The likelihood of an overtone clash, or voicing harmonic clash is far more significant when dealing with the sonic omnipresence of the piano or guitar. Most significantly, due to a higher register and more voicing possibilities, piano and guitar make much more effective chordal instruments than the bass.

However the omission of a piano or similar fixed-pitch instrument will place far greater emphasis on the intonation of the double bassist, and leave them without an accurate reference point for adjusting intervals.

Given these concerns, it is not surprising that the majority of significant examples of double-stops occur within solo double bass performance, or duo performance, as performed by players with virtuosic control of their instruments. Again, the Red Mitchell and Clark Terry duo performance of *Sophisticated Lady*<sup>37</sup> serves as an excellent example of this, with Mitchell freely articulating his

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<sup>37</sup> Mitchell, Red and Terry, Clary. "Clark Terry & Red Mitchell "Sophisticated Lady" 1987." <https://www.youtube.com/watch?v=L-9IpCbE8Z4>, 2009.

double-stops with impeccable intonation. Another excellent example include Neils Henning Orsted Pederson with Joe Pass on their album *Chops*<sup>38</sup>.

### **Chord-less Quartet**

By carefully selecting the type of ensemble configuration used, a large number of the issues associated with double-stop performance can be circumvented. Continuing in the same vein as the great bass-horn duo of Terry and Mitchell outlined above, the author believes that this environment can be further developed with the addition of an extra horn. One common pairing of horns within the jazz tradition is trumpet with alto saxophone, which feature a similar range, but a vastly different tone. The inclusion of trumpet and alto saxophone will allow for greater melodic, harmonic and textural possibilities within the ensemble, without entering into the register of the double bass and clouding the sonic qualities of double-stop techniques.

The inclusion of drums in this ensemble will naturally raise the dynamic, however it will also remove a portion of the time-keeping duties from the double bass, freeing the bassist up to concentrate more thoroughly on accurate and consistent double-stop performance. This is not to diminish the importance of the bass' time-keeping role, however it will significantly lessen the responsibilities of the bass. The inclusion of drums will also allow for a more colourful and textural approach to the compositions.

This ensemble is known within the jazz tradition as a chord-less quartet, and had its origins in the groups of saxophonists Gerry Mulligan and Ornette Coleman. These two ensembles differed greatly in musical style; Mulligan's quartet playing songs from the standard repertoire with clever horn arrangements to complement the harmonic walking of the double bass, and Coleman's quartet largely eschewing traditional notions of harmony (particularly in improvised sections) in

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<sup>38</sup> Neils Henning Orsted Pederson, Joe Pass. "Chops." Concord, 1978.

favour of a more open, intervallic approach.

It is interesting to note that despite the frequent lack of conventional harmony, Coleman's original quartet frequently featured bassist Charlie Haden performing double-stops, but Mulligan's quartet (with bassist Bob Whitlock on bass) did not.<sup>39</sup>

The previously discussed track *Tomorrow is a New Day* by Sam Anning<sup>40</sup> is an excellent example of double-stops being used in the chord-less quartet as a means of extending the bass. Given the openness of the sound of the chord-less quartet, and the success of *Tomorrow is a New Day*, the ensemble best suited to compositional component of this research will be comprised of double bass, drums, trumpet and alto.

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<sup>39</sup> For further listening, one might investigate:

Coleman, Ornette. "The Shape of Jazz to Come." Atlantic, 1959. and

Mulligan, Gerry. "The Original Quartet with Chet Baker." Pacific Jazz Records, 1953

<sup>40</sup> Anning, Sam. "Tomorrow Is a New Day." In *Re-turning Point: Listen Hear Collective*, 2011.

## Part IV - Exegesis

The following notation system will be used to denote right-hand articulations of double-stops in the instance of simultaneous attack within the scores attached to this dissertation as appendices, and in the excerpts included in the body of the dissertation.

**r** = Rake

**dfs** – Double Free Stroke

### Vipers

During the pre-compositional process, it was decided that *Vipers* would attempt to replicate the ensemble texture of *Tomorrow is a New Day*<sup>41</sup> as well as the way it features the bass as a melodic instrument and accompanist, and its use of open strings.

In addition, this piece drew on the solo work of Dave Holland, particularly in his treatment of Charles Mingus's piece *Goodbye Porkpie Hat*<sup>42</sup>. Holland adapts Mingus' piece, which is typically performed in jazz ensemble, to the unaccompanied double bass very successfully, largely due to his ability to perform the melody and an accompanying line simultaneously.

*Vipers* attempts to perform polyphony on the double bass, and uses Holland's work as a model for

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<sup>41</sup> Anning, Sam. "Tomorrow Is a New Day." In *Re-turning Point: Listen Hear Collective*, 2011.

<sup>42</sup> Holland, Dave. "Goodbye Pork Pie Hat." In *One's All: Intuition*, 1996.



this. In doing so the piece was initially conceived of as a solo piece for the double bass, which would later be orchestrated to include trumpet and alto saxophone.

With the exception of the D section, each section of *Vipers* was written on the double bass, and the primary melodic and harmonic material could be performed simultaneously within the limitations of the instrument as an unaccompanied piece

### The A Section

The composition process began with the introductory melodic statement; the A section:

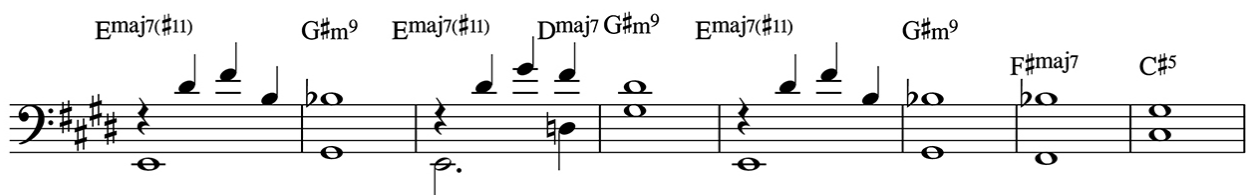


Figure 3: *Vipers* A Section, Bars 1-8, Without Articulation – Double Bass

Note the two separate lines, which are easily distinguished by different rhythms and different registers; the melody with stems up, the bass line with stems down.

In the initial conception of this section, it was intended that the double-stops in bars 2,6,7,10, 14, 15 and 16 be articulated with a double free-stroke (thumb and middle finger) for simultaneous attack as they occur on non-adjacent strings. It was later decided, however, to alter this to two single free-strokes due to difficulties with projection, and a desire for a more rhythmic approach. A simultaneous attack was maintained for double-stops in bars 4, 8, 12 and 16 as the strings were adjacent, and the rake articulation was used for greatest projection, and rhythmic variation.

The passage as performed on October 7<sup>th</sup> is notated as follows:



Figure 4: *Vipers* A Section, Bars 1-8, With Articulation – Double Bass

## The B Section

Next the B1 section was written, again for solo bass, which continues in similar polyphonic fashion to the A section, but with a longer more developed melodic line.

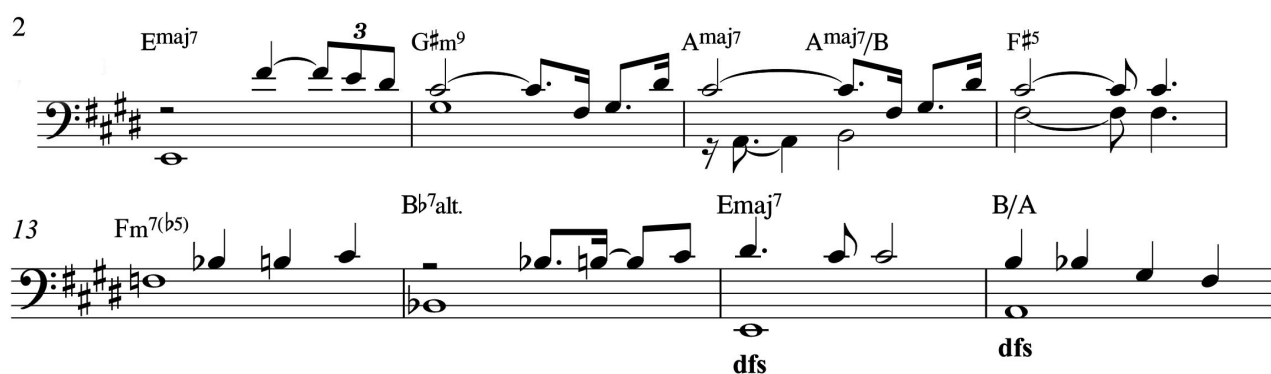


Figure 5: *Vipers* B Section, Bars 9-16 – Double Bass

Initially the Emaj7 in bar 15 was written as a C#mi9, with the C# occurring on the 'e' string.

However the importance of that note in the release of tension within the melodic line, coupled with the difficulty of the left- and right-hand articulations, made it too intricate to accurately produce. Instead the open 'e' string was used for extra effect and security.

Bars 15 and 16 mark the first usage of a double free-stroke in *Vipers*, and the decision to utilise such an articulation was based on the desire for simultaneous attack. Given that both bars 15 and 16 employ open strings, which dramatically reduce the tension on the string, the stroke was deemed to be not excessively difficult, and as such it was left in to preserve the simultaneous attack.

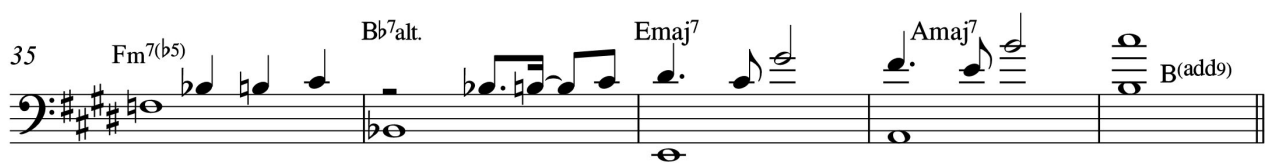


Figure 6: *Vipers B – Section, Bars 35-39 Pre Orchestration – Double Bass*

Prior to orchestrating *Vipers* for chord-less quartet, the phrase at bar 37-39 required an adjustment in register of the bass voice, in order to make the phrase playable. Should the bass note not have been adjusted, the interval required would have been a major 16<sup>th</sup> (major 9<sup>th</sup> 8va), which is impossible on the bass without the use of open strings – so a compromise was made for playability.

## The C Section

The C-section marks the entrance of the alto and trumpet and further explores the ideas of the A section, developing the three-note motif through two separate key-areas.

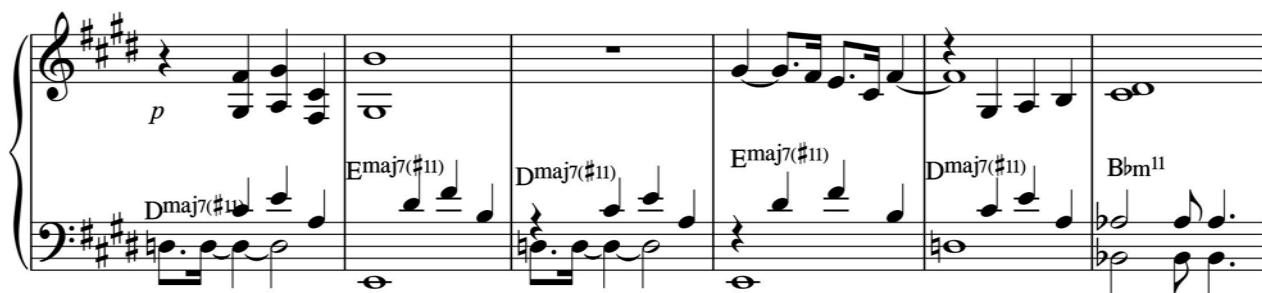


Figure 7: *Vipers C*, Bars 17-22 – Section – Trumpet, Alto and Bass

In bar 17 the horns harmonise the melodic voice of the bass, adding emphasis, and come to rest on beat one of bar 26 with a sustained chord, which outlines the triad. This strengthens the harmonic support under the bass melody.

Bar 20 sees the first counter-melodic statement of the piece, which is put forth by the trumpet, and subsequently answered by the alto in bar 21. Both horns briefly deviate from the phrasing and melody of the bass, but all three come together again for the sustained chord in bar 22.

Within this section, the effect of the horn and bass parts combined is of two overlapping voices, one performed by the bass, the other shared across the horns, which phase in and out of importance, eventually coming back together in bar 22. This effect is intended to give equal weighting to all melodic voices within the ensemble.

The final bar of the C-Section features a difficult double free-stroke, on the 'a' and 'g' strings, which was deemed necessary to the important following the composition of the horn parts. This bar features all instruments catching a heavy beat 1. As a rake was not desirable due to the non-adjacent strings, and two separate attacks would lessen the effect of the horn parts, a double free stroke was decided to be the only option.

This double-free stroke, and those in the B1 section are the only to occur in this piece, however as

this instance involves no open strings, it is the most difficult double-stop to execute in *Vipers*.

## The A2 Section

The A2 Section is a reprise of the A1 section, however with the horns now taking a supporting role.

23

27

Figure 8: *Vipers* A2 Section, Bars 23-30 – Trumpet, Alto and Double Bass

The trumpet and alto support the bass melody and strengthen its bass line with use of whole notes, lending further specificity to the harmony.

## The B2 Section

The bass continues its same part from B1, and bars 31-34 see the addition of the horns playing counter-melodic parts. These counter-melodic statements are developments of the horn parts in the C-Section.

These four bars demonstrate polyphony, not just within the bass part but also across the whole ensemble.



Figure 9: *Vipers* B2 Section, Bars 31-34 – Trumpet, Alto and Double Bass

Bars 35-38 feature the horns playing material that was initially written for the melodic voice of the double bass, first with just trumpet in bar 35 and 36, later in octave-doubling with both horns, then finally in harmony in bars 38 and 39.

Figure 10: *Vipers* B2 Section, Bars 35-39 – Trumpet, Alto and Double Bass

The decision to have the horns play what was initially a bass figure was based on a desire to further emphasise the development of this phrase, and its release. The line is doubled in the horns to give its full effect, then split into harmony for a richer sound over the single-line bass note.

The melody is omitted from the bass part in this section as it was still too difficult to consistently perform with good intonation, and as such it was omitted for safety. Furthermore the initial

specified chord of B(add9) was adjusted to C#mi/B with the inclusion of an E natural in the trumpet.

## The D Section

The D Section serves as a deviation from the mood created in the A, B and C sections and as such features only one phrase containing double-stops:

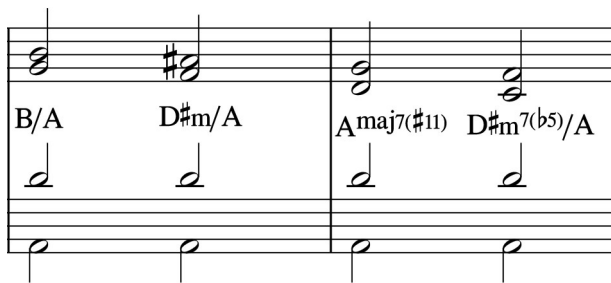


Figure 11: *Vipers* D Section, Bars 49-50 – Trumpet, Alto and Double Bass

The combination of the two horns and two bass voices transform this passage into an instance of pedal-point harmony, where successive chords are performed over a static bass note.

This bass part could be treated in two different ways; firstly on the 'd' and 'a' strings, allowing for a rake articulation, or on the 'g' and 'a' strings, which would require a double free-stroke.

The performance on October 7<sup>th</sup> 2014 featured the 'd' and 'a' strings, with a rake articulation.

## B3 Section

The B3 of *Vipers*, which is a reprise of the B1 section, features the horns playing all of the melodic material initially performed by the bass in B1. This orchestration was intended to relax the mood

of the piece towards the end, as this passage played entirely on bass can give a more frantic sound due to its technicality.

75

3

Emaj7

G#m<sup>9</sup>

A

Amaj7/B

F#<sup>5</sup>

79

3

Fm<sup>7(b5)</sup>

Bb<sup>7alt.</sup>

rit....  
Emaj7

B/A

Figure 12: *Vipers* B3 Section, Bars 75-82 – Trumpet, Alto and Double Bass

The development of the B sections throughout *Vipers* represents a deliberate attempt to make all melodic members of the ensemble equal, as the same material is first played entirely by the bass, then partially by the bass, then entirely by the horns.

Furthermore this eliminates any feelings of unnecessary repetition, as each B section is texturally different.

One unexpected difficulty that was encountered in this composition was orchestration from unaccompanied double bass to chord-less quartet. This is due to the fact that the double bass was playing both the bass line and the primary melodic statement of the piece in sections A, B and C.

As a result, horn parts within the A, B and C sections were either 1) harmonically supportive of the



bass melody, 2) counter-melodic, 3) the original bass melody played by the horns.

### Post-Performance Notes

The following observations were made following the performance of *Vipers* on October 7<sup>th</sup>, 2014.

Performance	<ul style="list-style-type: none"><li>• Too fast – Piece started to quickly</li><li>• Bass feels like its rushing ahead</li><li>• G#5 in bar 4 out of tune</li><li>• Melodic note tuning in general OK, some room for improvement</li><li>• Difficult to sustain bass note of B in bar 11, regardless of left-hand position.</li><li>• Difficult to sustain Bb in Bar 14 under B natural, and C# in melody voice.</li><li>• Sustain issues in bars 17,19 and 21, due to use of rake articulation</li></ul>
Composition	<ul style="list-style-type: none"><li>• Pacing of piece seems reasonably good</li><li>• Development of B sections works well</li><li>• The accurately performed double-stops capture essence of <i>Goodbye Porkpie Hat</i>.</li></ul>

	<ul style="list-style-type: none"> <li>• Bass is able to continue its traditional accompanying role in combination with a melodic role</li> <li>• Supportive horn figures seem to support bass well.</li> </ul>
Suggestions	<ul style="list-style-type: none"> <li>• More attention paid to intonation of double-stops</li> <li>• Perhaps accept that sustain in bars 11 and 14 is impractical and alter score to reflect.</li> <li>• Use of free-stroke in bars 17,19 and 21 to preserve sustain</li> <li>• More practice of bass part with metronome to maintain rhythmic accuracy.</li> </ul>

### Criteria:

*Does the piece represent an extension of the primary bass role through double-stop techniques?*

Yes, the double-stop techniques in *Vipers* allow the bass to perform both the melodic line and accompanying lines simultaneously; providing a melodic statement, with accompanying rhythmic and harmonic context.

However this effect is diminished during this performance, as the primary concern seems to be on the delivery of the melody, which impacts on the rhythmic accuracy of the bass line. The harmonic

progression is still largely outlined, albeit without the subtleties of a more complex harmonic instrument, but the performance suffers due to the lack of consistent time.

This can be remedied with more thorough practice with a metronome.

*Does the piece address all the problems associated with double-stop techniques?*

Intonation	<ul style="list-style-type: none"><li>• The use of open strings dramatically eases the burden of accurate intonation, as a lot of the double-stops have a fixed point of reference for tuning.</li><li>• Whilst <i>Vipers</i> does contain a number of examples of atypical hand-positioning, through practice the majority of these intervals were performed in tune</li><li>• The most significantly inaccurate double-stops were in tune in and of themselves, but not so in terms of the rest of the phrases.</li></ul>
Clarity	<ul style="list-style-type: none"><li>• Issues associated with clarity of notes in register were largely mitigated, as the majority of double-stops were of intervals greater than an octave, or of more simple intervals such as perfect fifths.</li></ul>

Fatigue	<ul style="list-style-type: none"> <li>This is not an issue in <i>Vipers</i> due to the high number of open strings used, giving the left-hand significant breaks from the stresses of double-stop techniques.</li> </ul>
Projection	<ul style="list-style-type: none"> <li>Projection was not an issue in this piece, again largely due to the use of open strings, but also to the articulatory decisions made in the A section. Whilst these may have compromised the simultaneous nature of the double-stops, they ensured that all the parts could be heard clearly.</li> </ul>

*Is the composition able to be performed live accurately, without the use of electronics or pre-recorded elements?*

It is possible to perform *Vipers* accurately live, and only a small amount of work is necessary to polish up the performance.

*Does the piece flow musically and do uses of double-stops aid the direction of the music?*

The piece develops musically, and the orchestration of melodic material initially found in the bass part works as a tool for developing the sound of the composition, without needing to introduce lots of new material.

*Vipers* begins out of an open bass solo. The decision to start with just bass and drums until the C section, serves the development of the piece –and as it progresses, it becomes less about featuring the bass, and more about the ensemble.

*Is the piece significantly different from the others presented here (in conceptual use of double-stops, and in mood of piece)?*

This piece is significantly different from the other pieces presented here in tempo, feel, use of open strings, types of articulations (double free-strokes and rakes), and most notably conception. Whilst the other pieces attempt to position the bass in an enhanced version of its traditional role, *Vipers* is instead attempting to add an extra element to the bass player's role, whilst not compromising on its primary function.

## **Over and Out**

Just as the main focus of *Vipers* was an exploration in polyphony, *Over and Out* marked an effort to compose using homophony on the double bass.

An initial idea used in the composition process was to write something that utilised four voices (trumpet, alto, and two bass voices), in which the bass outlined the harmonic movement and foundation, and the horns provided colour tones and melody notes.

Very broadly, this approach was inspired by a casual investigation of J.S Bach's chorale harmonisations,<sup>43</sup> and although the specific techniques and conventions of Bach's part-writing were not analysed, his chorales served as an inspiration for the E-section of *Over and Out*, in terms

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<sup>43</sup> Bach, J.S. 371 Vierstimmige Chorale, fur ein Tasteninstrument. Breitkopf and Hartel, 1990.

of mood.

The composed material of this piece is performed exclusively with the bow, and this decision was made for several reasons:

- The sustain and tone-colour of the bowed bass suits the intended mood of this piece far better than the short attack and quick decay of a pizzicato articulation.
- Arco-playing had become the focus of private external study throughout the year and it seemed like an appropriate way to further target this skill set, and
- The use of bow would make *Over and Out* significantly varied from any piece composed for pizzicato in the course of the research, and it would require a different set of considerations to be addressed.

## Main Theme

Through private experimentation and explorations with the bow, combined with academic investigations in double-stops, the main theme of this piece – the G minor to A minor dyad movement – was composed and a tempo of crotchet-equals-sixty-beats-per-minute in a ballad feel was decided.



Figure 13: *Over and Out*, Main Theme, Bars 5-13 – Double Bass

This theme is repeated in some rhythmic variation throughout the majority of the piece predominantly by the bass but occasionally in the horn parts. This theme is the basis for the A and E sections, and is always performed on the ‘d’ and ‘g’ strings, to ensure clarity and relative ease of articulation.

## Development

The B sections are also based on a double-stop phrase in the bass, also played on the ‘d’ and ‘g’ strings, and serve to modulate the piece to B minor, a minor third up:



Figure 14: *Over and Out*, B Section, Bars 30-35 – Double Bass

The C section, and subsequent B section that commence at bar 36 are the same melodic and harmonic material of the A section modulate up a major third.

The resulting bass line is also on the ‘d’ and ‘g’ strings, but is slightly more difficult to articulate:

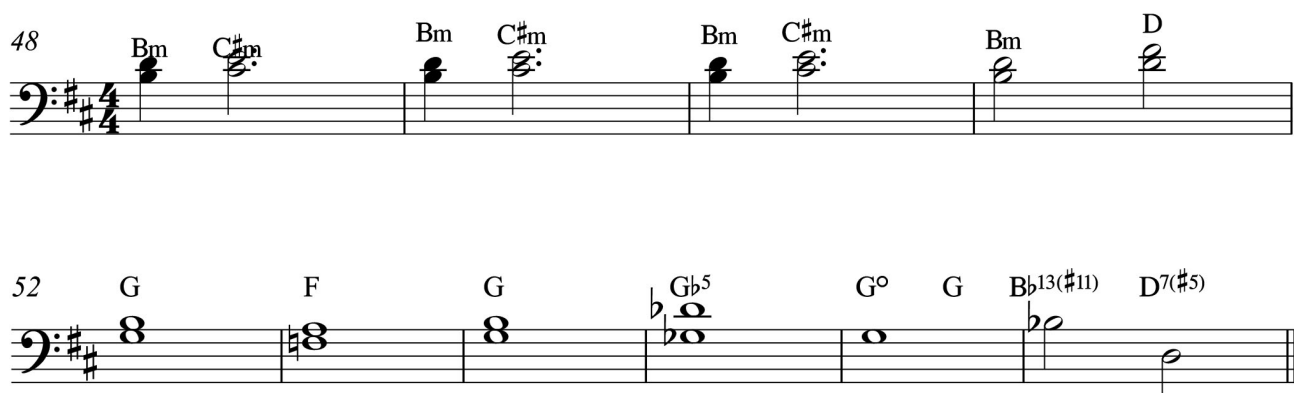


Figure 15: *Over and Out*, C Section, bars 48-57 – Double Bass

This B2 section at bar 52 leads back into the original key of G minor at bar 58.

## The E-Section

*Over and Out* reaches a climax at the E-section, both dynamically and harmonically. Whilst the bass part remains the same as the A and C sections, the horn parts re-interpret this material into first inversion major triads creating a significantly different mood.

82

Figure 16 shows the musical notation for the E Section, Bars 82-85. The score is for Trumpet, Alto, and Double Bass. The key signature is G minor (two flats). The time signature is 4/4. The bass line is consistent with the A and C sections. The horn parts re-interpret the material into first inversion major triads. The harmony changes from Eb/G and F/A in bars 82-83 to Eb/G, F/A, and Bb(add9) in bar 84, and finally to Cmi6(add7) and Dm7 in bar 85.

Figure 16: *Over and Out*, E Section, Bars 82-85 – Trumpet, Alto and Double Bass

As well as re-harmonising the bass line to a major tonality, the horn parts also contribute to the original G minor tonality with greater harmonic detail, as seen in the Gminor7(add4) to Aminor7(add4) movement, as well as the harmonic variations in Bb major.

86

Figure 17 shows the musical notation for the E Section, Bars 86-89. The score is for Trumpet, Alto, and Double Bass. The key signature is G minor (two flats). The time signature is 4/4. The bass line is consistent with the A and C sections. The horn parts re-interpret the material into first inversion major triads. The harmony changes from Gm7(add4) and Am7(add4) in bars 86-87 to Gm7(add4), Am7(add4), and Am in bar 88, and finally to Bb(#5), Bbmaj7(#11), and Bb6 in bar 89.

Figure 17: *Over and Out*, E Section, Bars 86-89 – Trumpet, Alto and Double Bass



It is relevant to discuss these harmonisations of the bass line, as the intention behind the composition of this piece was to have the bass act as the harmonic foundation from which the horns can play more colourfully. By explaining the re-interpretation of the bass' harmonic material, it becomes evident that this harmonic function was fulfilled and manipulated further within the composition.

### Post - Performance Notes

Performance	<ul style="list-style-type: none"><li>• Very poor intonation in general. Almost all intervals, and melodic lines seem to be out of tune, with the exception of the 5ths in the bridge. It becomes hard to hear when something is in tune as pitch is fluctuating so much</li><li>• It is difficult to tell whether double-stops were out of tune internally or externally. More attention needs to be paid honing this skill to better intonate double-stops.</li><li>• Due to a lack of confidence and ability with the bow, the rhythms are not clearly articulated, and the bass is unable to outline the time. Instead it falls entirely to the drums.</li><li>• Some sections, including the C-section</li></ul>
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	<p>and E section, appear to lack the necessary power to convey the double-stops clearly. Again this is a technical issue</p>
Composition	<ul style="list-style-type: none"> <li>• Development of piece is too slow to begin with.</li> <li>• The piece is too long.</li> </ul>
Suggestions	<ul style="list-style-type: none"> <li>• Much more practice and experience with the bow, double-stops and the two in combination. This piece is quite unforgiving for poor intonation as the bass is very exposed.</li> <li>• More clarity in the rhythm, which will come from practicing the bow passages with a metronome.</li> <li>• A counter-melodic line in the A2-section may help the development of the piece.</li> <li>• Cutting bars 60-78 will help the piece flow better, and reduce the overall length.</li> </ul>

## Criteria

*Does the piece represent an extension of the primary bass role through double-stop techniques?*

Yes, the composition *Over and Out* utilizes double-stop techniques to extend the role of the bass, by allowing it to provide more harmonic information to the ensemble.

However the technical difficulties encountered in preparing and performing this piece far exceed the abilities of the author at present, and as such, the performance on October 7<sup>th</sup> 2014 did not accurately demonstrate the potential of this piece.

Significant amounts of attention need to be paid to arco technique, as well as double-stop intonation, which is far more exposed with the use of the bow, in order to perform *Over and Out* in tune and in time.

*Does the piece address all the problems associated with double-stop techniques?*

Intonation	<ul style="list-style-type: none"><li>This is definitely the primary issue with this piece, though a large amount of inaccuracy can be attributed to poor performance. The intervals most consistently in tune were the perfect 5ths, whereas the minor and major thirds were often out of tune. Given that these thirds are crucial to the piece, the</li></ul>
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	<p>author's inclination would be to not change the piece, but prepare more effectively for performance.</p>
Clarity	<ul style="list-style-type: none"> <li>• All double-stops were performed on the 'd' and 'g' strings, which allowed for the greatest sonic clarity.</li> </ul>
Fatigue	<ul style="list-style-type: none"> <li>• Fatigue was an issue in this piece, for both the left and right hands. Passages without double-stops give the left hand a chance to re-cooperate; however an inexperienced arco player will struggle with the near constant arco playing.</li> </ul>
Projection	<ul style="list-style-type: none"> <li>• It was expected that issues of projection would be mitigated by the use of the bow, which allows the intervals to be sustained indefinitely. However in periods of higher volume, projection became an issue due to poor arco technique.</li> </ul>

*Is the composition able to be performed live accurately, without the use of electronics or pre-recorded elements?*

Theoretically, yes – but the author was unable to do so at this time.

*Does the piece flow musically and do uses of double-stops aid the direction of the music?*

The piece does flow, and the double-stops are integral to the direction of the piece, but some changes could be made to the length, as previously noted.

*Is the piece significantly different from the others presented here (in conceptual use of double-stops, and in mood of piece)?*

Yes, this piece is the only piece to use a harmonic conception of double-stops. Whilst *The End* may also be outlining harmonic movement, the use of double-stops was intended to provide an effect only.

Furthermore the mood, tempo and right hand techniques (bow) used in *Over and Out* are very different from the other two pieces.

## **The End**

*The End* attempts to compose a piece using double-stops as a method of affecting the tone of an ostinato. The effect in question is a simple sustain effect, whereby three notes that would usually be played in a disconnected fashion, are sustained and ring out under one-another. The sound created is a common guitar technique, however it is infrequently used on double bass. To the author's knowledge, this technique does not occur frequently in this context.<sup>44</sup>

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<sup>44</sup> For one example of this common technique see: Pink Floyd, "*Is There Anybody Out There*", In *The Wall*: Harvest/EMI, 1979

## Bass Ostinato

This ostinato forms the rhythmic basis for the entire piece, and it maintains its shape and effect whilst moving through different chord changes. The use of this ostinato allows the bass to provide significant amounts of both rhythmic and harmonic function, thereby fulfilling its primary function, and the addition of sustained notes (through double-stops) merely adds a colouration to the tone.

**A**

The musical notation is written for double bass in a key of B major (indicated by four sharps: F#, C#, G#, D#). The time signature is 4/4. The notation consists of five measures, each containing a rhythmic ostinato pattern. The notes are primarily eighth and quarter notes, often beamed together. Above the staff, chord changes are indicated: Bmaj7 at the start of the first measure, A at the start of the second measure, Bmaj7 at the start of the third measure, A at the start of the fourth measure, G at the start of the fifth measure, and A at the start of the sixth measure. The notation ends with a double bar line.

3

5

8

11

Figure 18: *The End*, Bass Ostinato – Double Bass

This ostinato continues throughout the piece in largely the same rhythm. This rhythm was written as a guide for interpretation and as such the rhythm performed on the recording may deviate significantly. The exact rhythm is of little importance to the piece, so long as it contributes to the groove of the piece, and the sustain effect is evident.

### Post-Performance Notes:

Performance	<ul style="list-style-type: none"><li>• Too fast</li><li>• Open strings ring out fine, but double-stops that require the hand to maintain pressure on the string, have no sustain. Eg. Bmaj7. This is a large problem</li></ul>
Composition	<ul style="list-style-type: none"><li>• Composition flows well</li><li>• Horns use dynamics really well</li><li>• Break from bass ostinato in solo is good</li></ul>
Suggestions	<ul style="list-style-type: none"><li>• More practice sustaining double-stops,</li><li>• More importance placed on the sustain effect when practicing, rehearsing and performing this piece – it is crucial to carry that effect over.</li><li>• Play slightly slower</li></ul>

### Criteria

*Does the pieces represent an extension of the usual bass role through double-stop techniques?*

As with *Over and Out*, the composed piece does, but its performance does not. The absence of sustain and subsequent lack of actual double-stops renders this performance unsuccessful. Open

strings resonate freely where used, however those double-stops requiring sustained hand pressure are cut off, as the effect was forgotten or too difficult at a brisker tempo.

The idea behind the composition is a simple one, and had it been adhered to in performance, then it could be described as an extension of the bass role.

*Does the piece address all the problems associated with double-stop techniques?*

Intonation	<ul style="list-style-type: none"><li>• The double-stops in <i>The End</i> were largely in tune, with the B6 and C6 intervals being least accurate. This is probably due to a difficult hand position and lack of open strings.</li></ul>
Clarity	<ul style="list-style-type: none"><li>• The registers used for each double-stop give a clear division between notes and allow for good clarity</li></ul>
Fatigue	<ul style="list-style-type: none"><li>• The composition gives the bassist a significant break in which to rest their hand during the sax and trumpet solo, which is necessary given the technical nature of the composed material.</li></ul>
Projection	<ul style="list-style-type: none"><li>• Due to use of the rake articulation for all double-stops, projection of the double-</li></ul>



	<p>stops was not an issue. What may become an issue is sustaining enough left-hand pressure to produce a full tone, however this was not evident in the performance due to a lack of sustain.</p>
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*Is the composition able to be performed live accurately, without the use of electronics or pre-recorded elements?*

*The End* can be performed live, however it is unclear whether all double-stops can be performed without over-exerting oneself. As analysed performance was unsuccessful in presenting the necessary element. It is not known at this point whether it is physically possible to perform *The End*, successfully however the author has faith that it is.

*Does the piece flow musically and do uses of double-stops aid the direction of the music?*

Yes, the double-stops represent an effect, which enhances the sound of the bass, and adds an extra element to the performance. The piece can be performed without them, but the result will lack an important element. The composition is sound, and sections lead logically to one another.

*Is the piece significantly different from the others presented here (in conceptual use of double-stops, and in mood of piece)?*

Yes, the piece attempts to use double-stops to create an effect to enhance the sound of the bass performing a typical function. It is different in feel, tempo, mood and articulatory methods to *Vipers* and *Over and Out*.

## **Conclusions**

Double-Stops are an area of double-bass playing which has been explored and exploited in jazz within solo and duo contexts, however it has rarely been used as a compositional device within jazz. It is however possible, to compose music that incorporates double-stop techniques as a means for expanding and extending the function of the double bass.

The three pieces outlined above all attempt to use double-stops in a different way; *Vipers* sought to create polyphony, *Over and Out* to lay a richer harmonic foundation for the ensemble, and *The End* to add a simple effect to the sound of the bass. Whilst not all the elements were performed successfully on the analysed recording, it is the belief of the author that the double-stops in these compositions, and the compositions themselves, present an extension of the traditional role of the bass – they just require a more skilful bassist to perform accurately.

These pieces represent a small cross-section of the musical potential of these double-stop techniques, as many more vastly different musical scenarios may be crafted with these concepts in mind, but utilising different ensembles, textures or concepts.

Further to this, some explorations that did not make it into this dissertation, which may be

interesting for further research include:

- Arco-melody in combination with left-hand pizzicato attack,
- Left- and right-hand pizzicato passages that involve both hands depressing strings and articulating,
- Bass lines which incorporate a combination of single-note lines and chordal accompaniment,
- Polyphonic passages in which both lines occur in close proximity to each other, and
- Utilising unisons and minor 2nds in thumb position for effects.

Double-stops are, like any musical device, able to be interpreted and combined with any other material – their only true limitation is the performer's imagination and dedication. Some artists are content to utilise only the most basic examples, whilst others such as Mark Dresser<sup>45</sup> and Stephano Scodanibbio<sup>46</sup> have crafted entirely new systems, and modified instruments so as to better facilitate the performance of double-stop techniques.

The double-stop techniques outlined in this dissertation, represent only one small skill, relevant to one instrument. However their implementation into the jazz ensemble can create unique musical textures, which require a re-evaluation of instrumental roles.

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<sup>45</sup> Dresser, Mark. *Guts*. Kadima Collective Recordings, 2010.

<sup>46</sup> Scodanibbio, Stephano. "Compositions", [StephanoScodanibbio.com](http://StephanoScodanibbio.com), [www.stephanoscodanibbio.com/compositions.htm](http://www.stephanoscodanibbio.com/compositions.htm) (retrieved 3<sup>rd</sup> November 2014)

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# Appendices

## Appendix 1 – Discography

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## **Appendix 2 - Appendix 1 – List of Available Intervals for Double-Stops within one hand position**

### Adjacent Strings

*Minor 3<sup>rd</sup>:*

- First finger on higher string, fourth finger on lower string

*Major 3<sup>rd</sup>:*

- First finger on higher string, second finger on lower string

*Perfect 4<sup>th</sup>:*

- Barring (that is depressing two strings with one finger) of any finger, or
- First finger on lower string, second finger on higher string. This requires a stretch of the second finger on the higher string to where the first finger would ordinarily be.

*Augmented 4<sup>th</sup>:*

- First finger on lower string, second finger on higher string

*Perfect 5<sup>th</sup>:*

- First finger on lower string, fourth finger on higher string

### Skipping One String

*Minor 6<sup>th</sup>:*

- First finger higher string, fourth finger lower string

*Major 6<sup>th</sup>:*

- First finger higher string, second finger lower string

*Minor 7<sup>th</sup>:*

- First finger lower string, second finger higher string. This requires a stretch of the second finger on the higher string to where the first finger would ordinarily be, or
- Second finger on lower string, fourth finger higher string. This requires stretch of second finger to where fourth finger would ordinarily be, or
- Barring of any finger. This is more difficult than barring a perfect 4<sup>th</sup> given the skipped string.

*Major 7<sup>th</sup>:*

- First finger lower string, second finger higher string, or
- Second finger lower string, fourth finger higher string

*Octave:*

- First finger lower string, fourth finger higher string

### Skipping Two Strings

*Minor 9<sup>th</sup>:*

- First finger higher string, fourth finger lower string

*Major 9<sup>th</sup>:*

- First finger higher string, second finger lower string, or
- Second finger higher string, fourth finger lower string

*Minor 10<sup>th</sup>:*

- First finger lower string, second finger higher string. This requires a large stretch from the

second finger to where the first finger would ordinarily be.

- Second finger lower string, fourth finger higher string. This requires a stretch of the fourth finger on the higher string to where the second finger would ordinarily be. This is the preferred fingering.
- This interval would be unsuitable to bar, due to the curvature of the fingerboard, and the required pressure to hold all four strings down.

*Major 10<sup>th</sup>:*

- First finger lower string, second finger higher string, or
- Second finger lower string, fourth finger higher string (preferred)

*Perfect 11<sup>th</sup>:*

- First finger lower string, fourth finger higher string

## Thumb Position

Once a performer enters thumb position, the hand and finger positions change to one of two different variations. These variations are differentiated by the position of the first finger, which is either a tone or a semi-tone away from the thumb. In the semi-tone variant of thumb position, the fourth finger can only reach a maximum of a minor 3<sup>rd</sup> from the thumb. However in the tone-variant of thumb position, it is possible for the fourth finger to reach a perfect 4<sup>th</sup>.

The following intervallic combinations are available for double stop performance in thumb position.

### Adjacent Strings

*Minor 2<sup>nd</sup>:*

- Tone-variant: Thumb on higher string, fourth finger on lower

*Major 2<sup>nd</sup>:*

- Semitone-variant: As with Minor 2<sup>nd</sup>, but in semitone fingering

*Minor 3<sup>rd</sup>:*

- Tone-variant: Thumb on higher string, first finger on lower string

*Major 3<sup>rd</sup>:*

- Semitone-variant: As with Minor 3<sup>rd</sup>, but in semitone fingering

*Minor 6<sup>th</sup>:*

- Semitone-variant: Thumb on lower string, fourth finger on higher string

*Major 6<sup>th</sup>:*

- Tone-variant: As with Minor 6<sup>th</sup>, but in tone fingering

*Minor 7<sup>th</sup>:*

- Thumb on lower string, fourth finger on higher string stretching one semitone further than usual position.

### Skip One String

*Augmented 4<sup>th</sup>:*

- Tone-variant: Thumb on higher string, fourth finger on lower string.

*Perfect 5<sup>th</sup>:*

- Semitone-variant: As with augmented 4<sup>th</sup>, but in semitone fingering.

*Minor 6<sup>th</sup>:*

- Tone-variant: Thumb higher string, first finger lower string.

*Major 6<sup>th</sup>:*

- Semitone-variant: As with Minor 6<sup>th</sup>, but in semitone fingering.

*Major 7<sup>th</sup>:*

- Semitone-variant: Thumb on lower string, first finger on higher string.

*Minor 9<sup>th</sup>:*

- Tone-variant: Thumb on lower string, second finger on higher string.

*Major 9<sup>th</sup>:*

- Tone-variant: Thumb on lower string, fourth finger on higher string.

### **Skipping Two Strings**

*Perfect 11<sup>th</sup>:*

- Tone-variant: Thumb on lower string, first finger on higher string.

*Augmented 11<sup>th</sup>:*

- Tone-variant: Thumb on lower string, second finger on higher string.

*Perfect 12<sup>th</sup>:*

- Tone -variant: Thumb on lower string, fourth finger on higher string.

### **Appendix 3 – *Vipers* – Ashley de Neef**

### **Appendix 4 – *Over and Out* – Ashley de Neef**

### **Appendix 5 – *The End* – Ashley de Neef**

### **Appendix 6 – Recording of *Vipers*, *Over and Out* and *The End* from Honours Recital Performance 7<sup>th</sup> October 2014**

# Appendix 3 - Vipers

Ashley de Neef

## A-1 Section

Trumpet in B $\flat$

Alto Saxophone

Acoustic Bass

Drums Double time Brushes

Emaj7(#11) G#5(add9) Emaj7(#11) D G#m9

5

Tpt.

Alto Sax.

Emaj7(#11) G#5(add9) F#maj6 C#5

9

## B-1 Section

Tpt.

Alto Sax.

Half time brushes

Emaj7 G#m9 Amaj7 Amaj7/B F#5

13

Tpt.

Alto Sax.

Fm7(b5) Bb7alt. Emaj7 B/A

dfs dfs

Detailed description: This system contains measures 13 through 16. The Tpt. and Alto Sax. staves are empty, indicating they are silent. The Bass staff has a key signature of three sharps (F#, C#, G#). Measure 13 has a whole note chord Fm7(b5). Measure 14 has a whole note chord Bb7alt. Measure 15 has a half note chord Emaj7, with a 'dfs' marking below it. Measure 16 has a half note chord B/A, with a 'dfs' marking below it.

17

**C-Section**

Tpt.

Alto Sax.

*p* *p*

Dmaj7(#11) Emaj7(#11) Dmaj7(#11)

Detailed description: This system contains measures 17 through 19, labeled as the 'C-Section'. In measure 17, the Tpt. and Alto Sax. staves begin with a half note rest, followed by a quarter note G#4 and a half note E5. The Bass staff has a half note chord Dmaj7(#11). In measure 18, the Tpt. and Alto Sax. staves have a half note rest, followed by a quarter note G#4 and a half note E5. The Bass staff has a half note chord Emaj7(#11). In measure 19, the Tpt. and Alto Sax. staves have a half note rest, followed by a quarter note G#4 and a half note E5. The Bass staff has a half note chord Dmaj7(#11). Dynamic markings 'p' are present above the first measure of both the Tpt. and Alto Sax. staves.

20

Tpt.

Alto Sax.

Emaj7(#11) Dmaj7(#11) Bbm11

dfs dfs dfs

Detailed description: This system contains measures 20 through 22. In measure 20, the Tpt. staff has a half note G#4, a quarter note A#4, a quarter note B5, and a half note G#4. The Alto Sax. staff has a half note rest, followed by a quarter note G#4 and a half note E5. The Bass staff has a half note chord Emaj7(#11). In measure 21, the Tpt. staff has a half note G#4, a quarter note A#4, a quarter note B5, and a half note G#4. The Alto Sax. staff has a half note rest, followed by a quarter note G#4 and a half note E5. The Bass staff has a half note chord Dmaj7(#11). In measure 22, the Tpt. staff has a half note G#4, a quarter note A#4, a quarter note B5, and a half note G#4. The Alto Sax. staff has a half note rest, followed by a quarter note G#4 and a half note E5. The Bass staff has a half note chord Bbm11. Dynamic markings 'dfs' are present below the last three measures.

23 **A-2 Section**

Tpt.

Alto Sax.

*fp*

*fp*

Emaj7 G#5(add9) Amaj13(#11) D G#m

Double time brushes

## 27

Tpt.

Alto Sax.

*mf*

Emaj7 *mf* G#m9 F#maj6 G#

31 **B-2 Section**

Tpt.

Alto Sax.

Emaj7 G#m9 Amaj7 Amaj7/B F#5

Half time sticks

35

Tpt.

Alto Sax.

*fp*

*fp*

Fm7(b5) Bb7alt. Emaj13 Amaj13 C#m/B

40

**D-Section**

Tpt.

Alto Sax.

*mp*

*mp*

Bb7alt.

Swell of sound snare crack beat 4

Drum and bass groove

44

Tpt.

Alto Sax.

47

Tpt.

Alto Sax.

B/A D#m/A Amaj7(#11) D#m7(b5)/A

Long notes

51

**TPT SOLO Open**

E:maj7(#11) Open G#m9 Emaj7(#11) D:maj7 G#m9

Tpt.

Alto Sax.

**TPT SOLO Open**

E:maj7(#11) Open G#m9 Emaj7(#11) D:maj7 G#m9

55

E:maj7(#11) G#m9 F#maj7 C#mi

Tpt.

Alto Sax.

E:maj7(#11) G#m9 F#maj7 C#mi



59

Tpt.  $D^{maj7}(\sharp 11)$   $E^{maj7}(\sharp 11)$   $D^{maj7}(\sharp 11)$   $E^{maj7}(\sharp 11)$

Alto Sax.  $p$   $D^{maj7}(\sharp 11)$   $E^{maj7}(\sharp 11)$   $D^{maj7}(\sharp 11)$   $E^{maj7}(\sharp 11)$

63

Tpt.  $D^{maj7}(\sharp 11)$   $E^{maj7}(\sharp 11)$   $D^{maj7}(\sharp 11)$   $B^{\flat 7}alt$

Alto Sax.  $D^{maj7}(\sharp 11)$   $E^{maj7}(\sharp 11)$   $D^{maj7}(\sharp 11)$   $B^{\flat 7}alt$

67

**Alto SOLO Open**  
Backings on cue

Tpt.  $E^{maj7}(\sharp 11)$   $G^{\sharp m9}$   $E^{maj7}(\sharp 11)$   $D^{maj7}$   $G^{\sharp m9}$

Alto Sax.  $E^{maj7}(\sharp 11)$   $G^{\sharp m9}$   $E^{maj7}(\sharp 11)$   $D^{maj7}$   $G^{\sharp m9}$

Start big, end small

$E^{maj7}(\sharp 11)$  Open  $G^{\sharp m9}$   $E^{maj7}(\sharp 11)$   $D^{maj7}$   $G^{\sharp m9}$

71

Tpt.

Alto Sax.

E<sup>maj7</sup>(#11) G<sup>#m</sup><sup>9</sup> F<sup>#maj7</sup> C<sup>#mi</sup>

E<sup>maj7</sup>(#11) G<sup>#m</sup><sup>9</sup> F<sup>#maj7</sup> C<sup>#mi</sup>

75 **B3-Section**

Tpt.

Alto Sax.

E<sup>maj7</sup> G<sup>#7</sup>(omit3) A/B A<sup>maj7</sup> A<sup>maj7</sup>/B F<sup>#5</sup>

E<sup>maj7</sup> G<sup>#7</sup>(omit3) A/B A<sup>maj7</sup> A<sup>maj7</sup>/B F<sup>#5</sup>

79

Tpt.

Alto Sax.

F<sup>m</sup>7(b5) B<sup>b7</sup>alt. rit E<sup>maj7</sup> B/A

rit

# Appendix 4 - Over and Out

Ashley de Neef

## A1 - Section

Alto Saxophone

Trumpet in Bb

Acoustic Bass

*p*

Gm Am Gm Am

7

Alto Sax.

Tpt.

A. Bass

Gm Am Gm Am Bb Cm Bb Gm Am Cm Bb

12

Alto Sax.

Tpt.

A. Bass

Gm Am Gm Am

18

Alto Sax.

Tpt.

A. Bass

*pp* *mp* *p* *mp*

Pull Back on Time

24

Alto Sax.

Tpt.

A. Bass

A3 Section

## B1 Section

30

Alto Sax.

Tpt.

A. Bass

E<sup>5</sup> F<sup>5</sup> E<sup>5</sup> G<sup>b5</sup> G(#11)

## C1 - Section

35

Alto Sax.

Tpt.

A. Bass

B<sup>b</sup> maj7(#5) p

Stay under bass in volume

Stay under bass in volume

41

Alto Sax.

Tpt.

A. Bass

pp

pp

46

Alto Sax.

Tpt.

A. Bass

mf

mf

Bm C#m Bm C#m Bm C#m

Pull back on time

## B2- Section

51

Alto Sax.

Tpt.

A. Bass

Bm G F G

55

Alto Sax.

Tpt.

A. Bass

Chords:  $G\flat^5$ ,  $G^\circ$ ,  $G$ ,  $B\flat^{13}(\#11)$ ,  $D7(\#5)$

62

Open - Trumpet solo

Solo

Comp behind tpt

Alto Sax.

Tpt.

A. Bass

Chords: Cmi,  $B\flat$ , Ami

ON Cue

65

Alto Sax.

Tpt.

A. Bass

Chords: Cmi,  $B\flat$ , Ami, Cmi,  $B\flat$ , Ami,  $D7/F\sharp$

D- Section

69

Freely - B5 pick notes (sounds under bass)

Freely - E5 pick notes (sounds under bass)

Freely

In Time

Drums Drop Out

Alto Sax.

Tpt.

A. Bass

73 In Time

Alto Sax.

Tpt.

A. Bass

Drums - big wash

78 E-Section

Alto Sax.

Tpt.

A. Bass

Simple Big Rock

85

Alto Sax.

Tpt.

A. Bass

90

Alto Sax.

Tpt.

A. Bass

rit

ff

mp

mp

rit

# Appendix 5 - The End

Ashley de Neef

**A**

Trumpet in B $\flat$

Alto Saxophone

Acoustic Bass

B $\text{maj}7$

A

4

Tpt.

Alto Sax.

A. Bass

B $\text{maj}7$

7

Tpt.

Alto Sax.

A. Bass

A

G

10

Tpt.

Alto Sax.

A. Bass

A B<sup>6</sup>

Detailed description: This system contains measures 10, 11, and 12. The Tpt. and Alto Sax. staves are silent, indicated by whole rests. The A. Bass staff features a walking bass line. In measure 10, the bass line is marked with a chord 'A'. In measure 11, it is marked with a chord 'B<sup>6</sup>'. The bass line continues into measure 12.

13

Tpt.

Alto Sax.

A. Bass

B B<sup>maj7</sup> A

Drums Enter

Detailed description: This system contains measures 13, 14, and 15. In measure 13, a box containing the letter 'B' is placed above the staff. The Tpt. staff is silent. The Alto Sax. staff begins a melodic line. The A. Bass staff continues its walking bass line, with a box containing 'B<sup>maj7</sup>' above it. In measure 15, a box containing 'A' is placed above the staff. Below the A. Bass staff, the text 'Drums Enter' is written.

16

Tpt.

Alto Sax.

A. Bass

B<sup>maj7</sup>

Detailed description: This system contains measures 16, 17, and 18. The Tpt. staff is silent. The Alto Sax. staff continues its melodic line. The A. Bass staff continues its walking bass line, with a box containing 'B<sup>maj7</sup>' above it in measure 17.



19

Tpt.

Alto Sax.

A. Bass

A

G

Measures 19-21. Tpt. is silent. Alto Sax. has a whole note chord in measure 19 and 20, then a whole rest in measure 21. A. Bass has a complex bass line with eighth and sixteenth notes, including slurs and ties. Chord labels 'A' and 'G' are above the staff in measures 19 and 20 respectively.

22

Tpt.

Alto Sax.

A. Bass

A

E<sup>5</sup>

Measures 22-24. Tpt. is silent. Alto Sax. has a half note chord in measure 22, a quarter note chord in measure 23, and a whole note chord in measure 24. A. Bass has a complex bass line with eighth and sixteenth notes, including slurs and ties. Chord labels 'A' and 'E<sup>5</sup>' are above the staff in measures 22 and 23 respectively.

24

Tpt.

Alto Sax.

A. Bass

Measures 24-26. Tpt. is silent. Alto Sax. has a half note chord in measure 24, a quarter note chord in measure 25, and a whole note chord in measure 26. A. Bass has a complex bass line with eighth and sixteenth notes, including slurs and ties.

25 **C**

Tpt.

Alto Sax.

**C**  
Bmaj7

A. Bass

28

Tpt.

Alto Sax.

Bmaj7

A. Bass

31

Tpt.

Alto Sax.

A G

A. Bass

This musical score is for three instruments: Tpt. (Trumpet), Alto Sax., and A. Bass (Alto Bass). The key signature is B major (four sharps: F#, C#, G#, D#). The score is divided into three systems, each containing three staves. The first system starts at measure 25. The Tpt. staff has a whole note chord 'C' above the first measure. The Alto Sax. staff has a whole note chord 'C' above the first measure. The A. Bass staff has a whole note chord 'Bmaj7' above the first measure. The second system starts at measure 28. The Tpt. staff has a whole note chord 'C' above the first measure. The Alto Sax. staff has a whole note chord 'C' above the first measure. The A. Bass staff has a whole note chord 'Bmaj7' above the first measure. The third system starts at measure 31. The Tpt. staff has a whole note chord 'C' above the first measure. The Alto Sax. staff has a whole note chord 'C' above the first measure. The A. Bass staff has a whole note chord 'A' above the first measure and a whole note chord 'G' above the second measure. The score includes various musical notations such as notes, rests, and accidentals.

34

Tpt.

Alto Sax.

A. Bass

A E° G

37

Tpt.

Alto Sax.

A. Bass

A B<sup>6</sup>

40

Tpt.

Alto Sax.

A. Bass

D C<sup>6</sup>

42

Tpt.

Alto Sax.

A. Bass

A

Measures 42-43. The Tpt. and Alto Sax. parts have long sustained notes. The A. Bass part has a rhythmic pattern with an 'A' marking above the first measure.

44

Tpt.

Alto Sax.

A. Bass

C<sup>6</sup>

Measures 44-45. The Tpt. and Alto Sax. parts have more active melodic lines. The A. Bass part has a rhythmic pattern with a 'C<sup>6</sup>' marking above the first measure.

46

Tpt.

Alto Sax.

A. Bass

A C<sup>6</sup>

Measures 46-47. The Tpt. and Alto Sax. parts have more active melodic lines. The A. Bass part has a rhythmic pattern with 'A' and 'C<sup>6</sup>' markings above the first and second measures respectively.

49

Tpt.

Alto Sax.

A. Bass

A

Measures 49-50. The Tpt. part has a whole note rest in measure 49 and a half note in measure 50. The Alto Sax. part has a melodic line in measure 49 and a whole note in measure 50. The A. Bass part has a complex rhythmic pattern in measure 49 and a half note in measure 50. A chord symbol 'A' is written above the A. Bass staff in measure 50.

51

Tpt.

Alto Sax.

A. Bass

G

Measures 51-52. The Tpt. part has a whole note rest in measure 51 and a half note in measure 52. The Alto Sax. part has a whole note in measure 51 and a half note in measure 52. The A. Bass part has a complex rhythmic pattern in measure 51 and a half note in measure 52. A chord symbol 'G' is written above the A. Bass staff in measure 52.

53

Tpt.

Alto Sax.

A. Bass

A E°

Measures 53-54. The Tpt. part has a whole note in measure 53 and a half note in measure 54. The Alto Sax. part has a whole note in measure 53 and a half note in measure 54. The A. Bass part has a complex rhythmic pattern in measure 53 and a half note in measure 54. Chord symbols 'A' and 'E°' are written above the A. Bass staff in measures 53 and 54 respectively.

56 **E**

Tpt.

Alto Sax.

**E**  
Bmaj7

A. Bass

Drums Tacet

58 Bmaj<sup>13</sup> Amaj<sup>13</sup>

Tpt.

Alto Sax.

1st Time Horns Trade 4s, 2nd Time Solo together

Bmaj<sup>13</sup> Amaj<sup>13</sup>

A. Bass

Bmaj<sup>13</sup> Amaj<sup>13</sup>

Bass Tacet First Time

62 Bmaj<sup>13</sup> Amaj<sup>13</sup>

Tpt.

Alto Sax.

Bmaj<sup>13</sup> Amaj<sup>13</sup>

A. Bass

Bmaj<sup>13</sup> Amaj<sup>13</sup>

66

Tpt.  $Gmaj^{13}$   $E^5$

Alto Sax.  $Gmaj^{13}$   $E^5$

A. Bass  $Gmaj^{13}$   $E^5$

70

Tpt.  $Bmaj^{13}$   $Amaj^{13}$   $Bmaj^{13}$

Alto Sax.  $Bmaj^{13}$   $Amaj^{13}$   $Bmaj^{13}$

A. Bass  $Bmaj^{13}$   $Amaj^{13}$   $Bmaj^{13}$

76

Tpt.  $Amaj^{13}$  1.  $Gmaj^{13}$   $Amaj^{13}$   $E^5$

Alto Sax.  $Amaj^{13}$   $Gmaj^{13}$   $Amaj^{13}$   $E^5$

A. Bass  $Amaj^{13}$  1  $Gmaj^{13}$   $Amaj^{13}$   $E^5$

81

Tpt.  $G^{maj13}$   $A^{maj13}$

Alto Sax.  $G^{maj13}$   $A^{maj13}$

A. Bass  $G^{maj13}$   $A^{maj13}$

84

Tpt.  $B^{maj13}$

Alto Sax.  $B^{maj13}$

A. Bass  $B^{maj13}$

86

Tpt. **F**  $x4$  Drum Solo

Alto Sax. **F**  $x4$  Drum Solo

A. Bass **F**  $C^{maj9}(\#11)$   $G^{maj13}(\#11)$

$x4$  Drum Solo



89

Tpt.

Alto Sax.

A. Bass

$A^9$   $E^\circ$   $G^{maj9}(\#11)$

92

Tpt.

Alto Sax.

A. Bass

$A^{13}$   $B^{maj7}(\#11)$

95

16 Bar Drum Solo to end

Tpt.

Alto Sax.

A. Bass

102

Tpt.

Alto Sax.

A. Bass

107

Tpt.

Alto Sax.

A. Bass

The image displays a musical score for three instruments: Tpt. (Trumpet), Alto Sax., and A. Bass. The score is divided into two systems. The first system covers measures 102 to 106, and the second system covers measures 107 to 111. Each instrument part is written on a five-line staff. The key signature is three sharps (F#, C#, G#), and the time signature is 4/4. In measure 102, each instrument part begins with a treble clef (for Tpt. and Alto Sax.) or a bass clef (for A. Bass), followed by a key signature change to three sharps. The notation for measures 102-106 consists of a whole rest on the first line of the staff for each instrument. In measure 107, the notation continues with a whole rest on the first line. The final measure of the second system (measure 111) ends with a double bar line. The instrument labels are placed to the left of their respective staves.