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ASPECTS OF RHYTHM IN THE MUSIC
AND IMPROVISATIONS IN SIX PIECES
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2011

USE OF THESIS

The Use of Thesis statement is not included in this version of the thesis.

ABSTRACT

This dissertation examines significant aspects of rhythm in the music and improvisations by the trio of the seminal bassist Avishai Cohen through transcription and analysis of a selection of his recorded works. Repertoire examined has been selected from Cohen's *Gently Disturbed* and *Seven Seas* releases to demonstrate some important devices commonly used by the group. This study is fuelled by interest in the trio's use of rhythmic devices to create free-flowing and consistently interesting music despite rhythmic complexity inherent to the compositions. In the context of modern jazz, the group's rhythmic approach is more complex and unique than its treatment of harmony, and this contrast is discussed briefly to demonstrate their emphasis on rhythm. The concept of 'parallel meters' is defined as the juxtaposition of two or more meters of the same temporal length with the same basic subdivision for deliberate exploitation by the soloists and accompanists. Specifically, this concept is only applicable to rhythmic structures established by the composition, preventing confusion with typical cross-rhythms. Prevalent rhythmic devices in the improvisations of the trio have been identified through analysis of transcribed solos and the structures of their corresponding solo forms. The identified devices include the exploitation of parallel meter structures for rhythmic diversity and interactive dialogue, 4/4 phrasing in 6/4, rubato-like phrasing, exploitation of long and short meters, frequent syncopation, use of cross-rhythms and short additive-meter phrases, rhythmic development of motifs, rhythmically repeated notes, expansion and contraction, and trading-based solo sections. From this list, devices that are specifically idiosyncratic of the trio's approach to rhythm have been identified and discussed.

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INTRODUCTION

Modern jazz is a vastly diverse art form. An increasing number of virtuosic exponents, playing a multitude of styles, have largely exhausted the possibilities of ‘traditional’¹ harmonic and rhythmic approaches. Consequently, many artists have attempted to diversify their ‘jazz language’² in various ways, with results sometimes sounding overly cerebral, contrived or challenging to listen to. One musician who has successfully developed a complex yet appreciable style by blending jazz with world influences is the bassist Avishai Cohen.

This dissertation aims to investigate certain rhythmic aspects of the Avishai Cohen Trio. Of principal interest will be identifying the prevalent rhythmic devices utilized in the selected pieces. Additionally, the relationship between the compositional and improvisational applications of rhythm will be discussed, exploring the way compositionally constructed rhythmic structures for improvising are exploited to provide ‘rhythmic interest’.³ The application of harmony by the trio will be mentioned only to highlight its relative simplicity.

The primary questions fuelling this study are:

- What are the major rhythmic devices used by the trio in improvisation?
- How do compositional rhythmic structures affect rhythm in improvisation?
- Which of the identified devices are most idiosyncratic of the trio?

¹ ‘Traditional’ meaning accepted post-bop rhythmic and harmonic conventions.

² ‘Jazz language’ refers to the shared understanding and application of harmony and rhythm in jazz.

³ ‘Rhythmic interest’ loosely means provision of tension and release through use of rhythmic devices, possibly in contrast to piece’s meter. Variety in rhythmic application is important in developing a solo.

A. RATIONALE

The rhythmic virtuosity of the Avishai Cohen Trio has deeply inspired the author. Cohen is at the forefront of modern bass playing and is acclaimed for his successful synthesis of world musics. His integration of odd-meter and polyrhythmic ideas into longer meters, creating fluid and natural sounding ‘grooves’,⁴ and the trio’s masterful navigation of these challenging rhythmic landscapes, is most engaging. Pianist Shai Maestro discusses Cohen’s organic approach:

I wrote some compositions a few years ago, and what happened to me and to a lot of people is that they say, “OK. I’m going to write something in 7/4 now or something that has this sound or that sound.” And then it sounds like they were trying to do it. I came to Avishai’s house one day for a rehearsal, and he said “Hey man, check out this new composition.” He started playing, and my first reaction was “What was the meter?” He looked at me and shrugged his shoulders and said, “I don’t know!” For a few minutes we tried to figure it out, and then said, OK this is in thirteen. But he just doesn’t think about it that way – he just writes music. He hears the melody, and writes it. Then you can analyze it after and say this is this and this is that.⁵

In contrast to Cohen’s complex yet fluent approach to rhythm, other modern artists including Brad Mehldau and Chris Potter often adapt ‘standards’⁶ into new meters for rhythmic interest and challenge. There are numerous exceptions to this generalization, but nonetheless Cohen’s style is striking and rather unique due to the intrinsic link between his melodies and their complex forms.

The critical reception to Cohen’s music confirms his unique artistic merits. Reviewer Michael Gallant says of *Gently Disturbed*⁷ that the trio made a

stellar album... creating music that is melodious, consonant, and instantly accessible, the tight trio sacrifices no depth as it weaves its elegant and engaging compositions.⁸

⁴ ‘Groove’ loosely refers to a persistently repeated pattern. Feld (1988) importantly notes it is an “*ordered sense of something that is sustained in a distinctive, regular and attractive way.*” [New Grove].

⁵ Jonathon Kantor, “Interview with Shai Maestro: New Piano Player with Avishai Cohen Trio,” Blue Note Blog New York, <http://bluenotenyc.blogspot.com/2007/07/interview-by-jonathon-kantor.html> (accessed June 10, 2011).

⁶ ‘Standards’ colloquially refer to tunes from the standard repertoire of jazz.

⁷ Avishai Cohen, *Gently Disturbed*, Sunnyside SSC4607, 2008, Audio CD.

Other reviews are similarly positive. Richard Johnston commented that while

Avishai's acoustic virtuosity remains apparent, the CD feels like a coherent statement rather than a series of bass showcases. Refreshing.⁹

Larry Blumenfeld makes similar inferences while reviewing *Colors*.¹⁰

Avishai Cohen... cover[s] a broad expanse with grace and solid footing... he rises to some of the challenges that have bankrupted many recent jazz projects: a mixture of influences and even instrumentation from various countries; an attempt to create a conceptual flow from track to track; and the blending of acoustic and electric instruments... This type of pan-cultural sound often adds up to watered down "world" music, or dashes of mere spice. But somehow, Cohen pulls off the approach, mixing and matching in ways that seem more musical than manipulative, more personal than postured... [Cohen's] is a voice worth listening to, and it's one of many developing voices that reach deeply into their own personal histories more so than any communal jazz well.¹¹

John Frederick Moore continues this theme in his review of *At Home*.¹²

The gorgeous melodies hold up through odd time signatures and sudden tempo changes...The disc strikes several balances: between the furious and the contemplative, between composition and improvisation. Most impressively, Cohen draws on multiple traditions to create one of his own.¹³

Bass Player Magazine also praises Cohen for "*his skill at integrating exotic scales and time signatures into hard driving jazz compositions.*"¹⁴

In summary, the positive critical opinion of Cohen, lack of current research, contrast to other prominent artists and the author's personal interest in his music identify him as an excellent subject for this study.¹⁵ Through preliminary listening and research it is obvious that there are consistent and interesting rhythmic devices used by the trio, which will be investigated here. It is hoped that the results of this analysis will serve to inform others on the unique rhythmic aspects of Cohen's music.

⁸ Michael Gallant, "Avishai Cohen Trio: Gently Disturbed," *Keyboard* vol. 34, issue 11 (Nov 2008): 18.

⁹ Richard Johnston, "Avishai Cohen: Devotion," *Bass Player* vol. 10, issue 7 (July 1999): 64.

¹⁰ Avishai Cohen, *Colors*, Stretch Records SCD-9031, 2000, Audio CD.

¹¹ Larry Blumenfeld, "Auditions Beyond the Rainbow," *Jazziz* vol. 18, issue 1 (Jan 2001): 64, 68.

¹² Avishai Cohen, *At Home*, Razdaz Recordz RD4602, 2005, Audio CD.

¹³ John Moore, "At Home," *Jazziz* vol. 22, issue 5 (May 2005): 65.

¹⁴ Anonymous, "10 Young Guns to Watch," *Bass Player* vol. 10, issue 1 (Jan 1999): 51.

¹⁵ The lack of current research into Cohen's music will be illustrated in the literature review.

B. METHODOLOGY

Throughout this dissertation, standard jazz nomenclature will be utilized unless otherwise indicated. This includes the use of accepted conventions for chord symbols, '8va' and '8vb' lines,¹⁶ changes of key and time signatures, and accidentals.

To identify prevalent rhythmic devices used by the trio in the six selected pieces, improvised solos performed by Cohen and pianist Shai Maestro will be analyzed, as well as their corresponding compositional structures. Analyzed material will be sourced mainly via personal transcription, with some supplementary material coming from published scores. The term 'transcription' is used throughout solely in the accepted jazz sense – the practice of aurally determining and notating musical passages for the purpose of technical improvement and/or conceptual analysis.¹⁷ Although improvisations will be transcribed in full, rhythmic devices will be analyzed more generally, using key excerpts to highlight important concepts.¹⁸

In the context of modern jazz, the trio's harmonic approach is relatively uncomplicated. It is often diatonically focused, sometimes modal or folk-like, and draws influence from romantic classical music and Israeli folk harmony. Functional ii-V-I-style harmony is not strongly emphasized, distancing the music from post-bop influences, and complex chord extensions and polychords are used sparingly. As such, harmonic material will only be discussed briefly to highlight the use of rhythm as the primary source of interest, development and challenge to the listener.

¹⁶ '8va' means the line is played an octave above, and '8vb' an octave below.

¹⁷ Bass transcriptions will be presented at bass reading pitch, which sounds an octave below concert pitch.

¹⁸ Full solo transcriptions will be included in the Appendices.

The dissertation will be divided into four main chapters, following the introductory material:

1. *Background information on Avishai Cohen and his trio*

- **Chapter 1** will provide the reader with context for Avishai Cohen's rhythmic approach. A literature review of published work regarding Cohen and the area of study will be presented, followed by biographical information about Cohen, his groups, and his influences.

2. *Analysis of selected works*

- Analysis of transcriptions of improvisations and compositional scores will occur in **Chapter 2**, leading to identification of key rhythmic aspects utilized by the group.

3. *Evaluation of identified devices: trends in rhythmic usage*

- The results of the analysis from Chapter 2 will be organized and collated in **Chapter 3**, leading to judgments about the most prevalent and important aspects of rhythm used by the trio. Comment will be made on how these devices are used to negotiate challenging improvisational frameworks, and to create interest in the absence of complex harmony.

4. *Conclusion*

- **Chapter 4** will provide a conclusion to the study, summarizing the findings.

CHOICE OF REPERTOIRE: SELECTION CRITERIA

To focus the scope of the topic, selection of repertoire was based on the following criteria, aimed at providing a cross-section of Cohen's work best demonstrating interesting rhythmic devices identified through preliminary listening.

- The group must be performing in trio format on the selected pieces.
- Selected works must contain obvious improvised solo passages.
- The overall selection must provide some stylistic diversity.
- Repertoire will be selected predominantly from Cohen's most critically acclaimed release *Gently Disturbed*.

The selected repertoire is as follows, and will be detailed further in Chapter 2.

1. *Pinzin Kinzin*¹⁹ (Cohen/Maestro/Guiliana)
2. *Chutzpan*²⁰ (Cohen)
3. *Seven Seas*²¹ (Cohen)
4. *Seattle*²² (Cohen)
5. *The Ever Evolving Etude*²³ (Cohen)
6. *Structure in Emotion*²⁴ (Cohen)

¹⁹ Avishai Cohen, "Pinzin Kinzin," on *Gently Disturbed*, Sunnyside SSC4607, 2008, Audio CD.

²⁰ Avishai Cohen, "Chutzpan," on *Gently Disturbed*, Sunnyside SSC4607, 2008, Audio CD.

²¹ Avishai Cohen, "Seven Seas," on *Seven Seas*, Blue Note 49549, 2011, Audio CD.

²² Avishai Cohen, "Seattle," on *Gently Disturbed*, Sunnyside SSC4607, 2008, Audio CD.

²³ Avishai Cohen, "The Ever Evolving Etude," on *Gently Disturbed*, Sunnyside SSC4607, 2008, Audio CD.

²⁴ Avishai Cohen, "Structure in Emotion," on *Gently Disturbed*, Sunnyside SSC4607, 2008, Audio CD.

CHAPTER 1: AVISHAI COHEN

1.1. LITERATURE REVIEW

As a contemporary artist, there has been little reviewed work about Avishai Cohen, save for biographic entries in *The New Grove Dictionary of Jazz*²⁵ and *The Rough Guide to Jazz*.²⁶ However, there is relevant literature, and these sources have been categorized into three groups.

ARTICLES CONTAINING INTERVIEWS AND ANALYSIS

Sources containing direct interviews and a mixture of primary and secondary analysis are the most significant to this dissertation. John Goldsby's "Global Player", a six-page article published in 2010, is the most up-to-date and detailed literature on Cohen. It provides primary discussion of Cohen's life and influences and specific analysis of his work, including *Chutzpan*, with annotated musical examples.

The rhythmic aspect of Cohen's writing and playing is a strong trademark. His compositions often rely on subdivisions of meter – a throwback to his experiences with Latin music in New York, and to his middle-Eastern roots. Cohen likes to use groupings of three bars of 4/4, floating over an underlying feeling of 6/4. Says Cohen, "I love the feeling of two against three, or playing things in six."²⁷

This idea is relevant to tunes such as *The Ever Evolving Etude* and *Structure in Emotion*.

²⁵ *The New Grove Dictionary of Music*. <http://www.oxfordmusiconline.com/>.

²⁶ Ian Carr, Digby Fairweather and Brian Priestly, *The Rough Guide to Jazz*, 3rd ed. (London: Rough Guides, 2004).

²⁷ John Goldsby, "Global Player: Avishai Cohen," *Bass Player* vol. 21, issue 7 (July 2010): 30.

The article also examines Cohen's use of shorter meters contained within longer meters, with the trio's drummer Mark Guiliana providing commentary on some devices used.

Drummer Mark Guiliana says, "The A section of 'Chutzpan' is two bars of 5/16 followed by a bar of 6/4. The groupings of the 16th-notes within the 6/4 bar are 5, 5, 6, 5, 3."

[He continues,] "The B section that Avishai solos over is in 6/4. The first it is on the 'e' of 1. The hits that I play are all five 16th-notes apart, but the last one is four 16th-notes, which brings it back to the first accent."²⁸

This type of analysis is typical of the study that will be presented in Chapter 2 when investigating compositional aspects of rhythm. In this article, the group also discusses their approach to playing in odd meters musically, and feeling form in a natural way.

Pianist Shai Maestro says, "When dealing with odd-meters, it's important to feel the groove and meter so strongly that it is not necessary to always emphasize the frame of the groove in the melodies."²⁹

[Avishai Cohen adds,] "Checking out the clave³⁰ and what's behind the clave and studying with someone who understands that is important. How it falls over two bars, and how the two bars become like one bar, and you have a feeling of a bigger picture within smaller parts."³¹

Also substantial and recent is Richard Johnston's 2008 article "Finding the Odd Time Within". It discusses Cohen's influences, and contains useful dialogue about his approach to grouping subdivisions, including analysis of the groove from *Eleven Wives*.³²

"... we were playing this groove in 11/8 – he divided it in three, four, four. Off that, I did the piano line that defines 'Eleven Wives' [3, 3, 3, 2]."

Cohen continues, talking of his approach to complex time signatures.

"My thing with odd meters is very natural, I never really think of it. I never have an intention to play in odd meters; I don't fancy playing music for the sake of complexity. But I hear odd rhythms that groove in some way. I come up with things that I naturally hear, and then I say, okay, this is three to five to six or whatever, and it's interesting to see what comes out of it

²⁸ *Ibid*: 34.

²⁹ *Ibid*: 34.

³⁰ Strictly speaking, the 'clave' refers to specific master rhythms in Afro-Cuban music. However, the modern application also encompasses master rhythms from odd-time grooves or other rhythmic patterns.

³¹ *Ibid*: 30.

³² Avishai Cohen, "Eleven Wives," on *Gently Disturbed*, Sunnyside SSC4607, 2008, Audio CD.

mathematically. For me an odd rhythm is just like a regular rhythm but... not. It carries a melody that brings you in.”³³

This is a fascinating and fundamental contrast to the often-employed approach of modernizing standards through arbitrary conversion into odd meters, a frequent manifestation of the trend towards increasing rhythmic complexity.

Cohen continues, specifying elements of the rhythmic language that the trio has been developing.

“I use a lot of groups of five within a bigger meter. After a while they [the trio] pick up on the *nature* of what it is – they start hearing the language – and they find it easier to deal with new tunes I bring.”³⁴

This will be discussed further in Chapter 2, as a number of the trio’s compositions and improvisations, including *Chutzpan* and *Pinzin Kinzin*, are influenced by groups of five (or similar).

GENERAL INTERVIEW-BASED ARTICLES

Interviews with Cohen are of varying age and relevance. A selection of the more important articles is reviewed here in chronological order. Larry Blumenfeld mentioned Cohen in two articles in 1998, contemporaneous to Cohen’s first release, *Adama*.³⁵ “On Common Paths and Divergent Roads”, is an editorial making only brief mention of Cohen, but it contains a useful quote revealing his work ethic and reflective nature.

“You have to be deep into the music to get into jazz, because it has to do with really liking the sounds of each instrument and getting into it through other musics that had to do with its evolution.”³⁶

³³ Richard Johnston, “Avishai Cohen: Finding the Odd Time Within,” *Bass Player* vol. 19, issue 11 (2008): 54.

³⁴ *Ibid*: 54.

³⁵ Avishai Cohen, *Adama*, Stretch Records SCD-9015-2, 1998, Audio CD.

³⁶ Larry Blumenfeld, “On Common Paths and Divergent Roads,” *Jazziz* vol. 15, issue 7 (July 1998): 10.

“Digging Jazz from the Bottom Up” is another feature on Cohen promoting *Adama*. It is mainly biographic, but also discusses defining characteristics of his music and his collaboration with oud³⁷ player Amos Hoffman.³⁸ From the same year, Richard Johnston’s “Bassnotes: Avishai Cohen” noted some obvious Cohen trademarks.

Adama features... [Cohen’s] taste for exotic scales and time signatures, solid yet rhythmically adventurous ensemble work, potent tone and prodigious solo technique. “Bass Suite #1” showcases a number of Cohen trademarks: It opens with a flurry of high-speed repeated notes that more into an eloquently grace-noted melody, followed by a funky sliding lick punctuated by on-the-bass percussion. Later Avishai stretches the repeated-note motif into a haunting gliss figure, develops the slide lick by adding double stops, and works in some Ron Carter-style pull-offs.³⁹

Cohen discusses his on-the-bass percussion technique and his practice methods, specifically regarding his tremendous right hand dexterity. Cohen’s technique influences his style, allowing him to execute characteristic double-time and repeated-note ideas.

“I took a few lessons with [Andy Gonzalez], and he showed me the slapping technique, which he got from Cachao.⁴⁰ Cachao is the man, but I’m taking it to other places – I’m using my fingers, and I’m doing Middle Eastern rhythms.”

“I worked up pizzicato speed by playing all the scales whilst doubling or tripling the right hand note... you should start very slowly... then build it up. Practice everything you do in doubles, triples, and fours.”⁴¹

The 1999 interview “A Rare Gem from Avishai Cohen’s Treasure”, published around the release of *Devotion*,⁴² is biographically focused and doesn’t cover much unique material. One quote stands out, highlighting how rhythm is often Cohen’s initial consideration.

“I compose on piano or bass and when composing, I don’t think of too much – just whether it’s a rhythmic melody or vamp and whether I want it to stay and have a life whether for duet, quintet or sextet.”⁴³

³⁷ The oud (or ūd) is a short-necked plucked lute of the Arab world. Hoffman is featured on a number of Cohen’s albums, and is an important part of the larger-group sound.

³⁸ Larry Blumenfeld, “Digging Jazz from the Bottom Up,” *Jazziz* vol. 15, issue 7 (July 1998): 19-22.

³⁹ Richard Johnston, “Bassnotes: Avishai Cohen,” *Bass Player* vol. 9, issue 9 (Sept 1998): 13.

⁴⁰ Israel ‘Cachao’ Lopez is a prominent Cuban double bassist.

⁴¹ *Ibid*: 13-14.

⁴² Avishai Cohen, *Devotion*, Stretch Records SCD-9021, 1999, Audio CD.

“Conversations with Avishai Cohen”, an interview published for the release of *Lyla*,⁴⁴ provides some interesting discussion of tracks from that album, but doesn’t contain too much information pertinent to this investigation.⁴⁵ “Profiles: Avishai Cohen – Natural Connection” (2007), is a short profile piece that reiterates some previously discovered information about his biography and influences. It also contains an incisive quote from Cohen concerning his stylistic synthesis.

“It’s never conscious. I’m an emotionally charged person, and the mix is the result of the flow that comes through me. I combine a musical urge with the ability to express what I hear with musical language. The music is a migration of many things coming into one. It’s a very natural process for me. I don’t see barriers between different styles of music; as long as you are expressing your true emotion successfully through your music, the genre doesn’t matter.”⁴⁶

This idea is explored further by Cohen in “Conversation with Acoustic Extraordinaire Avishai Cohen, 8/01/2007”.

“I’ve never had... any specific approach; I guess [Cohen’s compositional process] is what I am, and comes out in some way. I never have a specific agenda. My vocabulary, my influences, all the years of loving music and checking out all the music that’s around me, the great musicians, the people I hear, just encompassing that, and having the tools to express myself is what brings composition out.”⁴⁷

This interview also further confirms a number of details about his life and influences.

The interesting inference from these quotes is the authenticity of the synthesis of styles *within* Cohen – his music is the unique honest and passionate result of decades of exposure to varying but powerful musical influences.

⁴³ Paula Edelstein “A Rare Gem from Avishai Cohen’s Treasure,” All About Jazz, <http://www.allaboutjazz.com/iviews/acohen.htm> (accessed May 15, 2011).

⁴⁴ Avishai Cohen, *Lyla*, Sunnyside SSC4601, 2003, Audio CD.

⁴⁵ Franz Matzner, “Conversation with Avishai Cohen,” All About Jazz, <http://www.allaboutjazz.com/php/article.php?id=561> (accessed May 15, 2011).

⁴⁶ Philip Booth, “Profiles: Avishai Cohen – Natural Connection,” *Bass Player* vol. 18, issue 6 (June 2007): 20.

⁴⁷ Jake Kot, “Conversations with Acoustic Extraordinaire Avishai Cohen,” Bass Musician Magazine, <http://bassmusicianmagazine.com/2007/08/conversation-with-acoustic-extraordinaire-avishai-cohen/> (accessed May 15, 2011).

SIMILAR RESEARCH INTO OTHER JAZZ ARTISTS

Although there has been no significant investigation of Avishai Cohen, other musicians have been analytically researched. Some of these similar studies are relevant to this dissertation, and one such instance is Sam Trapchak's thesis "Towards a model of jazz bass accompaniment on standards adapted to uneven meters: the foundational approaches of Larry Grenadier, Scott Colley and Johannes Weidenmueller".⁴⁸ Trapchak's research consists of substantial interviews with these bassists and transcriptions of their playing. He analyzes these players' approaches to odd-time accompanying (on standard repertoire with 'moving harmony'⁴⁹) and codifies the results into a model. His study is detailed and clear, but the results emphasize simple solutions to odd-time playing. In contrast, the more complex rhythmic concepts inherent to Cohen's music are expected to provide more sophisticated solutions, which are of more interest to the author.

Trapchak importantly observes, "*as Hal Gerper states in 'Forward Motion' (2005), for the music to swing, and for the performers to be relaxed, fewer beats need to be counted, not more*".⁵⁰ This is comparable with the approach Cohen's group takes in playing such meters.⁵¹ Trapchak also proposes three factors that help define 'harmonic rhythm'⁵²:

Three factors... work together to define the beginning of a bar... duration, tessitura, and pitch. When using duration, a longer note will usually indicate the top of a bar. When using

⁴⁸ Sam S. Trapchak and Timothy Newman, "Towards a model of jazz bass accompaniment on standards adapted to uneven meters: The foundational approaches of Larry Grenadier, Scott Colley and Johannes Weidenmueller" (Thesis, 2009). (Master of Music thesis, William Patterson University, May 2009).

⁴⁹ 'Moving harmony' is a feature of most standard jazz repertoire and consists of changing chords which must be navigated in a systematic way. Bebop music contains the most obvious example of this.

⁵⁰ *Ibid*: 12-13.

⁵¹ This is discussed in "Global Player", page 34, as well as other interviews.

⁵² "Harmonic rhythm" is that rate at which harmony changes. This is often independent of melodic rhythm.

tessitura, a very low note... can be used to indicate the top. Usually the bass plays the root of the chord on beat one of the bar, so pitch can also be an indicator.⁵³

Trapchak concludes by mentioning the dearth of research into modern applications of rhythm. He suggests investigation of other artists, specifically naming Avishai Cohen, Christian McBride and Dave Holland, amongst others.⁵⁴

In fact, Dave Holland was the subject of Linda Oh's 2005 thesis "New method of rhythmic improvisation for the jazz bassist: an interdisciplinary study of Dave Holland's rhythmic approach to bass improvisation and North Indian rhythmic patterns", which analyses transcriptions of six Holland improvisations, discusses his North Indian influences, and synthesizes them into a tutor for improving rhythmic prowess. Her rhythmic analysis is similar to that of this dissertation, and parts of her methodology will be useful. Oh uses Lerdhal and Jackendoff's 'dot-notation' method of "*show[ing] the underlying pulse of existing meters and implied meters*" to visually illustrate the difference in the 'strength'⁵⁵ of beats within a meter by "*interpret[ing] the meter... as a row of beats each with different strengths. The higher number of dots per beat, the stronger the beat is felt.*"⁵⁶ This method will aid in comparing relative beat strength during discussion of the 'parallel meters'.⁵⁷ A modified system, using tabulated number ratings instead of dots, will be utilized for clarity.

⁵³ *Ibid*: 19.

⁵⁴ *Ibid*: 41-42.

⁵⁵ Stronger beats are the ones more explicitly felt by the listener.

⁵⁶ Linda Oh, "New Method of Rhythmic Improvisation for the Jazz Bassist: An Interdisciplinary Study of Dave Holland's Rhythmic Approach to Bass Improvisation and North Indian Rhythmic Patterns" (B.Mus. (Honours) thesis, Edith Cowan University, 2005), 17-18.

⁵⁷ 'Parallel meters' is an important concept to this dissertation that will be defined in Chapter 2.

1.2. BIOGRAPHY

Avishai Cohen was born in Naharia, Israel in 1970. He began playing piano at the age of 9, before commencing formal lessons at 11. Several years later, whilst living in St Louis, U.S.A., Cohen took up the electric bass due to a newly discovered interest in English rock music. He was soon exposed to recordings of Jaco Pastorius, and of this major early inspiration Cohen notes, "*Jaco's thing took me by storm and changed my life.*"⁵⁸ After returning to Israel two years later, Cohen attended a music high school in Jerusalem, but left in 1987 to pursue his musical career. He briefly played electric bass in an Israeli Army rock band before leaving and taking up the double bass.

Cohen moved to New York in 1992, where he studied with Andy Gonzalez and classical teacher Michael Klinghoffer. He made his name early on playing with Brad Meldhau and Adam Cruz, before performing with several jazz luminaries including Wynton Marsalis, Joshua Redman and Jeff Ballard. During this early period in New York he was also entrenched in the Latin music scene, which influenced his style greatly. Cohen recorded with Danilo Perez in 1996, and had a major breakthrough when Chick Corea hired him in 1997. He soon began leading his own groups, recording his first album *Adama* in 1998. Cohen left Corea's band in 2003 to pursue his own interests, which included founding his Razdaz Recordz label. Cohen has released twelve major recordings, including six on Razdaz and two on Blue Note. In 2009, Cohen was named the Artistic Director of the Red Sea Jazz Festival, and holds patronages at several other events.^{59, 60, 61}

⁵⁸ John Goldsby, "Global Player: Avishai Cohen," *Bass Player* vol. 21, issue 7 (July 2010): 27.

⁵⁹ Gary Kennedy, "Cohen, Avishai," Grove Music Online, <http://www.oxfordmusiconline.com> (acc: 14/05/11).

⁶⁰ Ian Carr, Digby Fairweather and Brian Priestly, *The Rough Guide to Jazz*, 3rd ed. (London: Rough Guides, 2004), 156.

⁶¹ "Avishai Cohen – the Official Website." <http://www.avishaicohen.com/> (accessed May 2011).

1.3. INFLUENCES

Avishai Cohen has a diverse list of influences, which have collectively shaped his unique style. Cohen notes of his early immersion in the music of his Israeli heritage, *"[My mother] would listen to some Sephardic⁶² music ... old melodies that became famous tunes among the Sephardic community that [we] are part of. She would sing these songs... and that would stick in my head."*⁶³ The influence of modal, folk-like melodies and occasionally complex time signatures from the Middle East is readily apparent in Cohen's music.

After taking up electric bass, Cohen's earliest playing influence came from Jaco Pastorius. He recalls, *"I was just another kid ... blown away by [him]... I studied every note he played... gain[ing] the technical ability to imitate and execute a lot of incredibly hard and technical stuff on the bass... [this] paved a great way for me."* This influence pervades through Cohen's musical voice, and he notes that even *"the things I play on the upright are influenced by my clear sound on the electric, and all that goes back to the ever-clear sound of Jaco."* Crystal-clear 16th-note passages on tracks like *Variations in G Minor*⁶⁴ and *Eleven Wives* are testament to this.⁶⁵

While studying at the Mannes College of Music, Cohen discovered that bebop was the essence of the jazz language. *"We all knew that was the bread and butter of being a true virtuoso of the jazz language... I immersed myself in the upright... studying all the Ray Brown and Paul Chambers*

⁶² Sephardic refers to a specific type of Jewish people, essentially descendant from Spain.

⁶³ Larry Blumenfeld, "Digging Jazz from the Bottom Up," *Jazziz* vol. 15, issue 7 (July 1998): 19.

⁶⁴ Avishai Cohen, "Variations in G Minor," on *Gently Disturbed*, Sunnyside SSC4607, 2008, Audio CD.

⁶⁵ John Goldsby, "Global Player: Avishai Cohen," *Bass Player* vol. 21, issue 7 (July 2010): 27.

licks they ever played.” He also became immersed in the Latin scene, and he notes, “The rhythmic challenge of Latin music... made me into the bassist that I wanted to be.”⁶⁶

This wide variety of influences, and Cohen’s early and thorough exposure to them, help explain his successful fusion of world musics into his own personal sound.

⁶⁶ *Ibid*: 28-29.

1.4. AVISHAI COHEN TRIO

Avishai Cohen's ensemble has taken many forms since its inception in 1998. Earlier records feature larger groups, including vocals, saxophones, trombone and percussion. The first release to significantly showcase Cohen's trio was 2005's *Avishai Cohen Trio and Ensembles: At Home*, with tracks split between trio and ensemble formats. Drummer Mark Guiliana and pianist Sam Barsh complete the trio on this album.

In 2006, *Continuo* was released, comprising the same trio with the addition of Amos Hoffman on oud for several tracks. The follow-up album, *Gently Disturbed*, was performed entirely by the trio, now featuring the prodigious young Israeli Shai Maestro on piano. This recording is seen by many to be the pinnacle of Cohen's recorded output; his most fully realized and beautiful musical statement. Cohen discusses the process of recording the album and his influence on Maestro:

"Shai was only 19 when I took him under my wing. I took him home and worked with him for about six months. He came to my house every day, he studied my music, transcribed it, and we played together every day, until I felt it was time to go on the road. The trio became very tight, and that eventually led to *Gently Disturbed*, which is a record I am very proud of."⁶⁷

The author believes this comment explains why the piano improvisations from Maestro display clear evidence of Cohen's influence, and thus the development of a shared musical language.

Cohen is also featured in trio format on the title track of *Seven Seas*. This piece will form part of the repertoire studied, as it demonstrates some of the major traits of the trio's rhythmic approach. On this recording Shai Maestro and Avishai Cohen are joined by percussionist Itamar Doari on hybrid drum-set.

⁶⁷ John Goldsby, "Global Player: Avishai Cohen," *Bass Player* vol. 21, issue 7 (July 2010): 29.

CHAPTER 2: RHYTHMIC ANALYSIS OF TRANSCRIPTIONS

In this chapter, rhythmic analysis of the transcribed improvisations will be presented, leading to the identification of key devices used in each composition. Excerpts from the full transcriptions pertaining to important rhythmic devices in the improvisations will be organized into groups according to general governing concepts, and then discussed. These results will be further evaluated and summarized in Chapter 3.

2.1. PINZIN KINZIN

The first work to be examined, *Pinzin Kinzin*, contains an excellently-shaped piano solo by Shai Maestro. In addition to fulfilling the aforementioned selection criteria, it has been selected to provide a clear introduction to the concept of ‘parallel meters’, and showcase other ideas particularly idiosyncratic of the group.

2.1.1. IMPROVISATIONAL FRAMEWORK

Essentially a modal piece centered on E minor, *Pinzin Kinzin* is built upon the four bar bass and piano vamp shown in Figure 1, which provides the basis for both the tune and improvisation.⁶⁸

FIGURE 1: BASIC PIANO AND BASS GROOVE FROM *PINZIN KINZIN*

♩ = 112

E_mi B_mi⁷ C A_mi⁷ D/F# E_m/G A E_mi B_mi⁷ C E/G# D/F# E/G# A_mi

The 4/4 riff can be broken down into smaller groupings and converted to an equivalent-length additive⁶⁹ meter by amalgamating the space between attacks into groups of 16th-notes, as demonstrated in Figure 2. The lower staff of this Figure represents the rhythm of the original

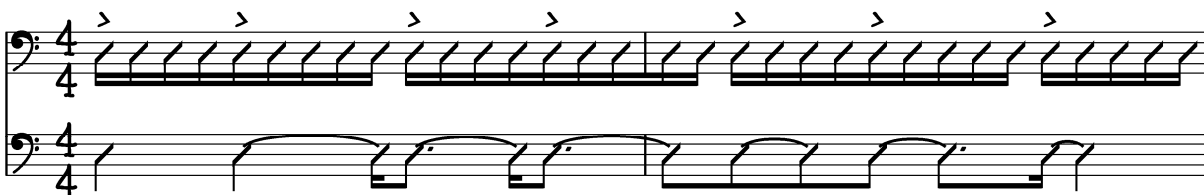
⁶⁸ Avishai Cohen, *Gently Disturbed: Music for Trio* (UK: Razdaz Recordz, 2009), 10.

⁶⁹ ‘Additive meters’ are a pattern of beats that subdivide into smaller irregular groups.

vamp, whilst the upper stave shows the same accents filled in with asymmetrical groupings of 16th-notes, forming a new metric framework.⁷⁰

INTRODUCTION TO PARALLEL METERS

FIGURE 2: REALISATION OF 4/4 GROOVE IN ASYMMETRICAL GROUPINGS OF 16TH-NOTES



As demonstrated, the 32 sixteenth-notes in the two measures of 4/4 can be grouped according to the accents as follows, forming a new composite meter⁷¹ in parallel to the original one:

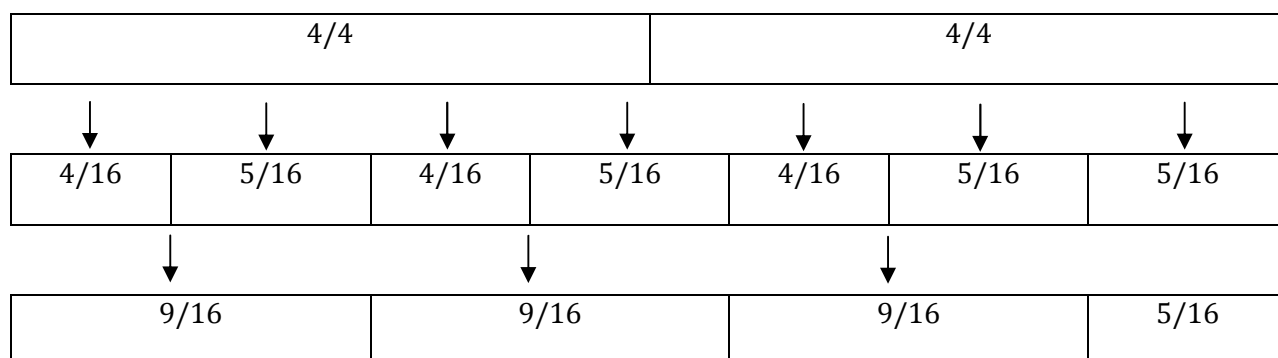
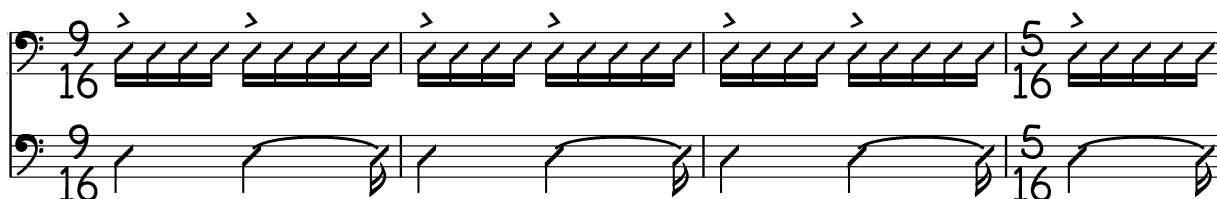


FIGURE 3: RESULTANT *PINZIN KINZIN* COMPOSITE PARALLEL METER



⁷⁰ As the 2 two-bar sections of the four-bar riff are rhythmically identical, only two bars need be examined.

⁷¹ During analysis, 'composite meter' and 'additive meter' will be used interchangeably to describe repeating meter made up of smaller, possibly asymmetrical, metric elements.

More manageably, the [4 5 4 5 4 5 5]⁷² grouping can also be thought of as [9 9 9 5] (seen in Figure 3), and Shai Maestro implies both of these semiquaver groupings in his solo.

PARALLEL METERS: FORMALISED DEFINITION

For the purposes of analysis, the author terms this coexistence of two separate meter systems occupying the same total temporal space,⁷³ with the same basic subdivision, '**parallel meters**'. Soloists are able to deliberately swap between these parallel meters for striking rhythmic effect, and this exploitation will be one of the major devices discussed. Recognizing the potential confusion between rhythms derivative of such exploitations and typical 'cross-rhythms',⁷⁴ the distinction is made that analyzed rhythmic excerpts will only be categorized as parallel meter exploitations if they observably lock into the parallel meter frameworks established through composition.

As discussed, there are two coexisting parallel meters in *Pinzin Kinzin* inherent to the composed groove. The musicians are free to move between these at any time for rhythmic effect.

Meter 1 (simple meter): 2 bars of 4/4

=

32 sixteenth-notes

=

Meter 2 (complex additive meter): 3 bars of 9/16 followed by a bar of 5/16

⁷² In this notation, the numbers represent how many of the basic subdivision are in each grouping.

⁷³ That is, they last the same length of time – rhythmic resolution will occur periodically and predictably.

⁷⁴ 'Cross-rhythms' are rhythms that consistently conflict with the main meter of the music.

2.1.2. SHAI MAESTRO'S PIANO SOLO (3.32 – 4.37)

The most immediately noticeable feature of the solo is the lack of harmonic variety: it is constructed almost exclusively by 'blanketing'⁷⁵ using the E minor scales, with only a few exceptions. This doesn't detract from the creativity or development of the solo, as rhythmic devices are instead employed to maintain interest.⁷⁶

EXPLOITATION OF PARALLEL METERS

Arguably the most interesting rhythmic device identified by this study is the exploitation of the parallel meters established through composition. This solo contains several exploitations of the previously identified parallel meters, first at bar 5, followed by an identical usage in bar 17. At bar 23, Maestro utilizes varied line contour and accents to explicitly state the composite meter. The final and most effective example occurs at bar 29, where both Cohen and Guiliana also emphasize the composite meter in their accompaniment, greatly manipulating the apparent placement of the rhythmic pulse for the listener.

Figure 4 displays how the improvised lines 'lock-in'⁷⁷ to the defined composite parallel meter. The four noted examples are stacked vertically to concisely demonstrate the effect, with the 'marcato'⁷⁸ accents illustrating the major divisions of the [9 9 9 5] or [4 5 4 5 4 5 5] composite meters against the sample bass line in the lowest stave.

⁷⁵ 'Blanketing' is an approach to soloing using simplified scales, often ignoring moving harmonies.

⁷⁶ Maestro's full solo can be viewed in Appendix A.

⁷⁷ 'Locking-in' essentially means that rhythms occur accurately and concurrently.

⁷⁸ Upside down 'v'

FIGURE 4: INSTANCES OF THE EXPLOITATION OF THE PARALLEL METERS IN *PINZIN KINZIN*

The figure displays five staves of musical notation. The first four staves are in treble clef, and the fifth is in bass clef. Each staff is labeled with a bar number: 'BAR 5', 'BAR 17', 'BAR 23', 'BAR 29', and 'SAMPLE BASSLINE'. The notation includes various rhythmic patterns, accidentals, and accents (marked with ^) on specific notes.

The literal effects of this device can be demonstrated by adapting Lerdhal and Jackendoff's dot-notation method.⁷⁹ Table 1 shows the strength of each 16th-note in the groove in relation to both parallel meters. Higher values (between 1 and 4) indicate stronger beats, and the strongest of these are where the rhythmic pulse is felt by the listener.⁸⁰ In the table's two systems (each corresponding to a bar of the groove), the first row names the 16th-note subdivisions according to their accepted labels in 4/4.⁸¹ Relative beat strength in the 4/4 meter is represented by the second row, whilst that of the composite meter is represented by the third row. For added emphasis, the pulses in 4/4 are highlighted in blue, and the pulses in the composite meter in green.

⁷⁹ Linda Oh, "New Method of Rhythmic Improvisation for the Jazz Bassist: An Interdisciplinary Study of Dave Holland's Rhythmic Approach to Bass Improvisation and North Indian Rhythmic Patterns" (B.Mus. (Honours) thesis, Edith Cowan University, 2005), 17.

⁸⁰ The ranking of strengths is fairly arbitrary in this case and is used for demonstration only. In some cases the hierarchy of beats can be radically different, even in the same time signature.

⁸¹ Sixteenth-notes in simple time signatures are typically verbalized as "1" "e" "+" "a" etc...

TABLE 1: RELATIVE BEAT STRENGTH IN THE PARALLEL METERS OF *PINZIN KINZIN*

1	e	+	a	2	e	+	a	3	e	+	a	4	e	+	a
4	1	2	1	3	1	2	1	3	1	2	1	3	1	2	1
4	1	1	1	3	1	1	1	1	4	1	1	1	3	1	1

1	e	+	a	2	e	+	a	3	e	+	a	4	e	+	a
4	1	2	1	3	1	2	1	3	1	2	1	3	1	2	1
1	1	4	1	1	1	3	1	1	1	1	4	1	1	1	1

As shown, swapping the rhythmic emphasis of improvised lines and/or accompaniment from one parallel meter to the other has profound effect, as the placement of the beat appears to change for the listener. More specifically, there are up to four major effects of such exploitation:

1. *The number of pulses can change:* in *Pinzin Kinzin* there are eight pulses in the 4/4 meter, but only seven in the composite meter.
2. *The pulses are displaced:* in this case the pulses in the composite meter are moved by up to three-quarters of a beat.
3. *The relative spacing of the pulses change:* in this example the 4/4 pulses are evenly spaced, whereas the pulses are non-symmetrical in the composite meter.
4. The effect of simpler devices used by the soloist can be altered if the accompanists independently emphasize the more complex meter. This will be discussed further in the analysis of the bass solo in *Chutzpan*.

As mentioned, the effect of the parallel meter exploitation at bar 29 is enhanced because the whole group simultaneously swaps between meters. Establishing these frameworks in composition is advantageous as the shifts between meters become predictable to the performers, allowing for a far greater yet still apparently spontaneous effect: a shared musical language.

SYNCOPATED 16TH-NOTES

Maestro's solo is punctuated by the use of syncopated 16th-notes,⁸² particularly early on. Notable examples occur in bars 3, 9-15 and 19-20. The accurately executed passages give the piano solo a percussive quality, lending forward motion.⁸³

RHYTHMICALLY REPEATED NOTES

Rhythmically repeated notes are a staple of Cohen's bass improvisations and compositions. They are also apparent in Maestro's improvisations, occurring here in bars 2-4 and 9-12 (Figures 5 and 6, respectively). The example in bar 9 is preceded by a repeated-note phrase from drummer Mark Guiliana, demonstrating the group's interplay and shared rhythmic language.

FIGURE 5: EXAMPLE OF REPEATED NOTES IN *PINZIN KINZIN*: BARS 2-4



FIGURE 6: EXAMPLE OF REPEATED NOTES IN *PINZIN KINZIN*: BARS 9-12



⁸² Syncopated notes emphasize weak beats in a measure, for example off-beat 8th- or 16th-notes.

⁸³ The examples are quite long and readily obvious in Appendix A and, for the sake of clarity, will not be reproduced here.

Within Cohen's music there are a number of different technical and contextual applications for this device. In the above excerpts, the use of repeated notes in short, rhythmically clear bursts is a strong and percussive idea that adds diversity to the improvised passages by breaking up the linearity of phrases. Occasionally, Cohen or Maestro will introduce a small group of repeated notes into an otherwise linear phrase, disrupting the flow of the line in a very organic way.

The trio sometimes uses rhythmically repeated notes in other applications to prolong pitch. Prolongation of a particular pitch, not unlike the traditional use of a trill, can add weight to a melodic line. For example, in a live performance of the standard *Besamé Mucho*, Cohen rapidly rearticulates the notes of a harmonically clashing line, giving it intrinsic strength and allowing a later resolution to be reached. Without the re-articulations, the line would have been weaker and consequently would have sounded 'wrong'.

By far the most common occurrence, however, is the use of repeated notes in melodic fragments consisting of common chord tones, which occurs both in improvisation and composition. Notable compositional examples include *Eleven Wives*, *Pinzin Kinzin* and *Seven Seas*.

OTHER CROSS-RHYTHMS

Also in this solo are other examples (excluding parallel meter instances) where smaller odd sub-divisional groupings are used as cross-rhythms to develop the improvisation. This idea is employed at bar 27, as demonstrated in Figure 7.

The original B-E-G-A melody from bar 1 is re-used in bars 5 and 6 (coinciding with the composite parallel meter, as previously discussed). It is then repeated and varied to resolve to the E through bars 7 and 8. For brevity, other examples of motivic development throughout the solo will not be shown here. More discussion about rhythmic motivic development will occur in conjunction with analyses of the other improvisations.

RHYTHMIC EXPANSION OR CONTRACTION

Anticipating the start of the bar is a proven and simple method of disrupting the harmonic rhythm and generating interest, and Maestro uses it effectively in this solo.⁸⁵ Through bars 6-8, he repeatedly anticipates the motif by a sixteenth-note, giving the line forward motion. More dramatic is the eighth-note anticipation of bar 5, which causes a larger shift in the harmonic rhythm. This instance is also particularly strong because it is used in conjunction with the development of the opening motif, as discussed above. Both these examples are observable in Figure 8.

⁸⁵ Anticipating the start of the bar is a 'contraction', whilst delaying the start of a bar is an 'expansion'.

2.1.3. SUMMARY OF DEVICES IN *PINZIN KINZIN*

Through analysis of *Pinzin Kinzin*, parallel meters set up in composition are defined as separate coexisting meter systems occupying the same total temporal space, with the same basic subdivision. When exploited, soloists and accompanists are able to alternate between these meters to great rhythmic effect.

This exploitation of parallel meters is the major rhythmic device in Maestro's solo that is dependent on the structure of the composition, and is an important concept for later analyses.

In addition, other general rhythmic devices are employed to maintain interest, despite the comparatively simple approach to harmony, including:

- Syncopated 16th-notes
- Rhythmically repeated notes
- Utilizing other cross-rhythms comprising small odd groupings
- Developing motifs rhythmically
- Using anticipations

Of these devices, the exploitation of parallel meters and the use of cross-rhythms (particularly five-note groupings) are noted as being idiosyncratic of the trio.

2.2 CHUTZPAN

Structurally, *Chutzpan* is the most rhythmically complex of the pieces being examined, and is an exemplary feature of both Cohen and Maestro's exceptional command of challenging solo forms. As in *Pinzin Kinzin*, the trio's exploitation of compositionally constructed parallel meters is clearly demonstrated.

2.2.1 IMPROVISATIONAL FRAMEWORK

Chutzpan is essentially a modal piece centered on C minor that utilizes short but rhythmically complex vamps to facilitate improvisation. In this case, there are separate vamps for the piano and bass solos.

PIANO SOLO VAMP

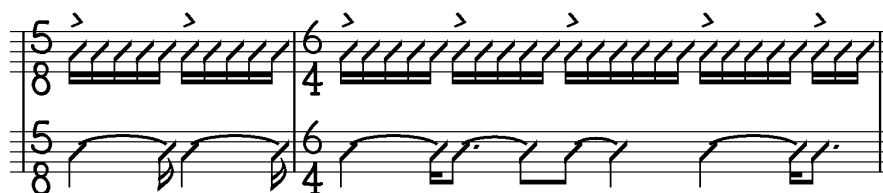
FIGURE 9: BASIC GROOVE FROM THE PIANO SOLO IN *CHUTZPAN*



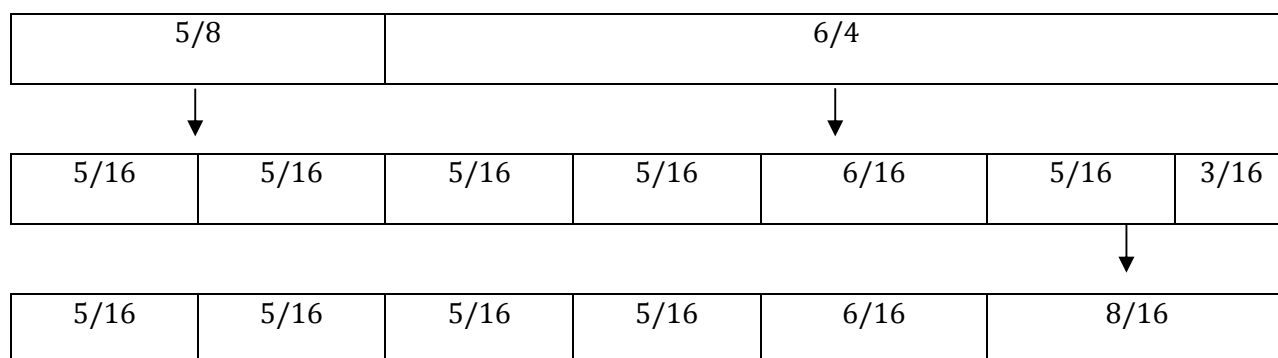
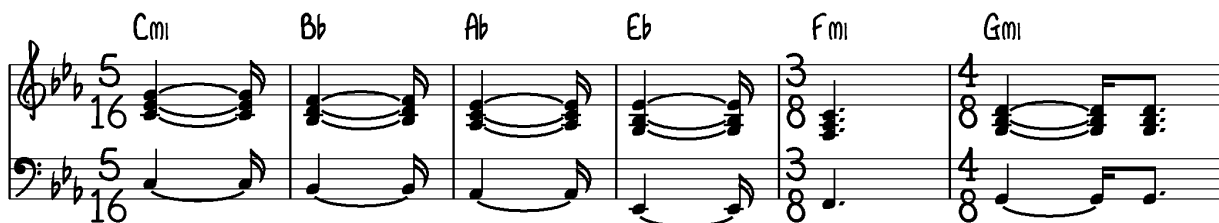
The vamp shown in Figure 9 comprises of a bar of 5/8 time and a bar of 6/4 time.^{86, 87} Just as in *Pinzin Kinzin*, this meter can be broken down into groups of 16th-notes to form a more complex parallel meter, as shown in Figure 10.

⁸⁶ Avishai Cohen, *Gently Disturbed: Music for Trio* (UK: Razdaz Recordz, 2009), 5.

⁸⁷ The vamp is actually eight bars long, with slightly varying harmony for each two bar fragment, but for the purposes of rhythmic analysis only two bars need to be investigated.

FIGURE 10: REALISATION OF *CHUTZPAN* GROOVE IN GROUPINGS OF 16TH-NOTES

The two-bar vamp can be grouped according to the accented 16th-notes, forming a composite meter of equivalent length (Figure 11).

FIGURE 11: RESULTANT *CHUTZPAN* COMPOSITE PARALLEL METER (PIANO SOLO)

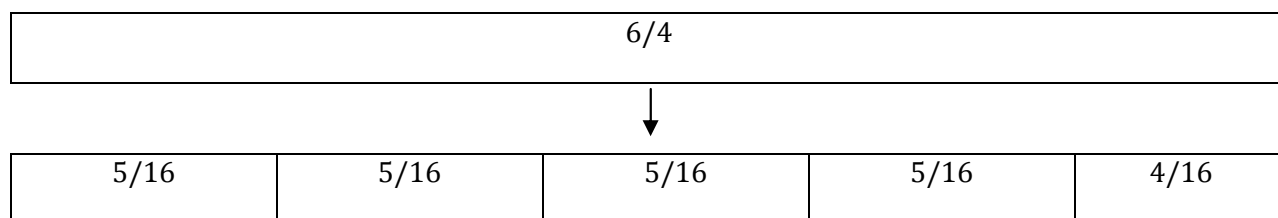
As previously noted, drummer Mark Guiliana confirms this assessment of the meter, stating, “The A section (piano solo vamp) of ‘Chutzpan’ is two bars of 5/16 followed by a bar of 6/4. The groupings of the 16th-notes within the 6/4 bar are 5, 5, 6, 5, 3.”⁸⁸ As demonstrated above, it can be slightly simplified to [5 5 5 5 6 8], which is utilized heavily by Maestro in this solo.

⁸⁸ John Goldsby, “Global Player: Avishai Cohen,” *Bass Player* vol. 21, issue 7 (July 2010): 34.

BASS SOLO VAMP

FIGURE 12: BASIC GROOVE FROM THE BASS SOLO IN *CHUTZPAN*

As Figure 12 shows, the bass solo also occurs over a repeated rhythmic pattern. Mark Guiliana explains, “The B section that Avishai solos over is in 6/4. The first it is on the ‘e’ of 1. The hits that I play are all five 16th-notes apart, but the last one is four 16th-notes, which brings it back to the first accent.”⁸⁹ Exactly like *Pinzin Kinzin* and the piano solo form on *Chutzpan*, this framework establishes a parallel meter system for Cohen to exploit.



As the first hit begins on the ‘e’ of 1, the framework must be displaced by one 16th-note, resulting in the meter shown in Figure 13.

FIGURE 13: RESULTANT *CHUTZPAN* COMPOSITE PARALLEL METER (BASS SOLO)

⁸⁹ *Ibid*: 34.

2.2.2 SHAI MAESTRO PIANO SOLO (1.41 – 2.55)

Maestro's improvisation on *Chutzpan* is rhythmically one of the most impressive solos being examined. It is notable for the high degree of comfort conveyed – despite rhythmic complexity – and the clever variations applied to the underlying parallel meters. As with *Pinzin Kinzin*, Maestro's harmonic approach is largely diatonic, with only a few exceptions.

EXPLOITATION OF PARALLEL METERS

Despite the vamp being written as a bar of 5/8 and 6/4, Maestro tends to focus his solo on the more complex parallel meter. He divides the 5/8 bar into its constituent bars of 5/16 on every possible occasion, and draws from the longer 6/4 bar on only two occasions. Figure 14 shows a selection of the parallel meter exploits from this solo.

FIGURE 14: A SELECTION OF PARALLEL METER EXPLOITATIONS IN *CHUTZPAN*'S PIANO SOLO

The musical score for Figure 14 illustrates the exploitation of parallel meters in Chutzpan's piano solo. It consists of five staves of music, all in a key signature of three flats (B-flat, E-flat, A-flat). The first four staves are in treble clef, and the fifth is in bass clef. The first staff is labeled 'BAR 1' and shows a 5/8 bar followed by a 6/4 bar. The second staff is labeled 'BAR 3' and shows a 5/8 bar followed by a 6/4 bar. The third staff is labeled 'BAR 23' and shows a 5/8 bar followed by a 6/4 bar. The fourth staff is labeled 'BAR 29' and shows a 5/8 bar followed by a 6/4 bar. The fifth staff is labeled 'COMPLEX DIVISIONS' and shows a 5/8 bar followed by a 6/4 bar. The score illustrates the exploitation of parallel meters by dividing the 5/8 bar into constituent bars of 5/16 and drawing from the longer 6/4 bar on only two occasions.

In the examples at bars 1-2 and 3-4, Maestro prefers to outline the 5/16 groupings using rhythms specific to that meter, including these:



The first rhythm is in particularly prevalent in the trio's music, and will be recur in later analyses.

At bars 23 and 29, Maestro employs constant 16th-note lines, outlining the complex divisions using varied line contour and accents, much like at bars 23 and 29 of *Pinzin Kinzin*.

SYNCOPATED 16TH-NOTES

The use of syncopated 16th-notes is particularly interesting in this solo because there are occasions where the syncopations do not fall with the strong beats of either meter, heightening the rhythmic tension. Notable examples are at bar 6 and leading into bar 19.

RHYTHMICALLY REPEATED NOTES

Rhythmically repeated notes are a particular feature through the middle of this solo, constituting some of its more interesting moments. Throughout this passage, showcased in Figure 15, Maestro uses repeated notes to emphasize strong rhythms that alternatively lock into and play off the divisions of the meter. There is noticeable contrast between the repeated-note phrases and the longer and more complex lines, especially in the first and third systems. This concept of varying approach to line construction in order to develop an improvisation – between repeated notes and long lines, for example – is frequently observable in the trio’s music, and will be discussed further.

FIGURE 15: PASSAGE OF REPEATED NOTES FROM *CHUTZPAN*'S PIANO SOLO

The figure displays three systems of musical notation for a piano solo. Each system consists of a grand staff with a treble and bass clef. The music is in a key with two flats (B-flat and E-flat) and a 5/8 time signature. The systems are numbered 21, 25, and 29 at the beginning of the first bass staff line. The first system (measures 21-24) features a treble staff with a complex, flowing line and a bass staff with a simpler, rhythmic accompaniment. The second system (measures 25-28) shows a treble staff with repeated eighth-note patterns highlighted in yellow, and a bass staff with a steady accompaniment. The third system (measures 29-32) continues with a treble staff featuring more complex lines and repeated notes highlighted in yellow, and a bass staff with a consistent accompaniment. The time signature changes from 5/8 to 6/8 and back to 5/8 throughout the passage.

2.2.3 AVISHAI COHEN'S BASS SOLO (3.55 – 4.53)

Avishai Cohen's bass solo on *Chutzpan* constitutes the most rhythmically adventurous and complex of the pieces being examined. Contrary to other solos, the beat is often obscured, making it quite difficult to feel the underlying 6/4 pulse.

EXPLOITATION OF PARALLEL METERS

Cohen's exploitation of the bass solo vamp differs from Maestro's discussed approach. Rather than explicitly stating the full complex meter at any point, Cohen tends to play through it, targeting selected hits for dramatic effect and to emphasize rhythmic tension and resolution. He contrasts the staccato complex meter accents with broader notes, adding strength to his lines and intensifying the tension of their juxtaposition to the meter. Figure 16 shows several examples.

FIGURE 16: A SELECTION OF PARALLEL METER EXPLOITATIONS IN *CHUTZPAN'S* BASS SOLO

The figure displays three staves of musical notation. The top two staves are in bass clef with a 6/4 time signature and a 4/4 complex meter. The bottom staff is in treble clef with a 6/4 time signature and a 4/4 complex meter. The notation includes various rhythmic patterns, accents, and rests, illustrating the exploitation of parallel meters.

Additionally, the trio has a tendency to heavily accent the hit falling on the 'e' of beat 1. This is the most rhythmically disorienting property of this parallel meter system, as it effectively creates the feeling that the downbeat occurs a semiquaver later than its actual position. This particular

variety of exploitation is also very prevalent: Cohen plays on this part of the meter 13 out of a possible 20 times, accenting it heavily on 6 occasions.

SYNCOPATED 16TH-NOTES

Many of Cohen's phrases in this solo are highly syncopated. This, in combination with the complex hits in the accompaniment, sometimes significantly obscure the beat for the listener. The syncopated passages essentially provide a very strong cross-rhythm against the odd groupings of the meter (Figure 17), altering their original effect.⁹⁰ This implementation of simple syncopation over the complex meter of the accompaniment is advantageous because it profoundly affects the feeling of the pulse whilst remaining relatively simple for the soloist to comprehend and execute.

FIGURE 17: INSTANCES OF SYNCOPATIONS IN *CHUTZPAN* AGAINST THE COMPLEX METER

⁹⁰ For clarity, the all the excerpts in Figure 17 have been moved so that the complex meter appears to start on the beat. The relative position of the examples to the meter is maintained, so the effect of the syncopations against the meter is readily apparent.

RHYTHMICALLY REPEATED NOTES

Rhythmically repeated notes are a device also employed in this solo, notably in bars 12, 13-16 and 18-20. As discussed, the use of this device provides contrast to more linear passages, and can also serve to change the direction of a solo. In this case, Cohen achieves both effects. The rhythmic implications of the instance at 14-16 will be discussed below.

OTHER CROSS-RHYTHMS

Cohen constructs a number of lines from smaller odd length groupings in this solo, notably through bars 9-12 (Figure 18) and 14-16 (Figure 19).

FIGURE 18: NUMERICAL BREAKDOWN OF *CHUTZPAN* BASS SOLO: BARS 9-12

Figure 18 shows two staves of musical notation in bass clef with a key signature of two flats. The first staff (bar 9) contains a sequence of notes with groupings indicated by brackets and numbers above: 4, 3, 3, 3, 3, 4, 5, and 5. The second staff (bar 11) contains a sequence of notes with groupings indicated by brackets and numbers above: 5, 5, 4, 4, 5, 5, 4, and 4.

FIGURE 19: NUMERICAL BREAKDOWN OF *CHUTZPAN* BASS SOLO: BARS 14-16

Figure 19 shows two staves of musical notation in bass clef with a key signature of two flats. The first staff (bar 14) contains a sequence of notes with groupings indicated by brackets and numbers above: 3, 4, 3, 3, 2, 4, 3, 3, 4, 3, 2, 2, and 3. The second staff (bar 16) contains a sequence of notes with groupings indicated by brackets and numbers above: 7, 3, 3, and 3.

In both examples, Cohen interchanges clearly articulated groupings to create organic and rhythmically interesting phrases, managing to avoid the contrived sound that can sometimes result from applying strong polyrhythms verbatim. Whilst the rhythms used for the groupings of 2, 3 and 4 are fairly arbitrary, the rhythm in the grouping of 5 is of interest:



The above rhythm, as seen in Maestro's solo, is used to strongly outline groupings of five 16th-notes. This rhythm is a staple of Cohen's rhythmic language both in improvisation and composition. Notable compositional applications include *Smash*,⁹¹ *One for Mark*⁹² and *Ani Aff*.⁹³

⁹¹ Avishai Cohen, "Smash," on *Continuo*, Razdaz Recordz RD4603, 2006, Audio CD.

⁹² Avishai Cohen, "One for Mark," on *Continuo*, Razdaz Recordz RD4603, 2006, Audio CD.

⁹³ Avishai Cohen, "Ani Aff," on *Seven Seas*, Blue Note 49549, 2011, Audio CD.

2.2.4 SUMMARY OF DEVICES IN *CHUTZPAN*

Similarly to *Pinzin Kinzin*, the exploitation of parallel meters is the overarching compositionally-influenced device utilized in the solos on *Chutzpan*. This device allows for some truly interesting phrasing and the freedom to swap between meters at will. Importantly, simultaneous exploitations are again possible because of the pre-organized nature of these frameworks. The influence of the parallel meters is most apparent in Cohen's solo, where the group emphasizes the complex meter, disorienting the listener. Against this, Cohen is able to swap freely between meters to manipulate the effects of other rhythmic devices employed and develop his improvisation.

The use of syncopated 16th-notes is non-standard in these two transcriptions because of the underlying parallel meter frameworks. Syncopating from within simpler meter is straightforward for the performers, but has interesting rhythmic effects when juxtaposed against the more complex meter in the accompaniment.

Both soloists make use of rhythmically repeated notes on this piece, consolidating the device as a feature of the trio's sound. Cohen and Maestro seem to use the device for similar purposes: contrasting more linear phrases, emphasizing particular pitches, or changing the direction of an improvisation.

Finally, Cohen also makes fairly extensive use of other cross-rhythms in his solo. Of these, the rhythms based on 5/8 groupings are noted as being identifiable staples used by the group, and this will be further supported by later analyses.

2.3 SEVEN SEAS

Taken from Cohen's latest release *Seven Seas*, the piano solo on this track of the same name displays many of the rhythmic devices apparent in improvisations examined so far.

2.3.1 IMPROVISATIONAL FRAMEWORK

The solo section of *Seven Seas* is a simple turnaround in E minor occurring over two bars of 7/4 time, which is shown in Figure 20. Maestro's solo over this progression is mainly diatonic, and relies on rhythmic variation for interest.⁹⁴

FIGURE 20: SEVEN SEAS SOLO FORM

The quarter notes in the bars of 7/4 are grouped in 4-3, which is a very typical modern handling of the 7/4 meter. Unusually, the group of 4 in the early part of the bar is outlined using the 'one-bar clave'⁹⁵ instead of the usual pair of half-notes. This adds to the rhythmic complexity of the vamp, and to give the illusion of the 4-3 pattern 'flipping around' in each new bar.⁹⁶ In addition to this interesting property, percussionist Doari often plays accompaniment in long 7, further diversifying rhythmic possibilities.

⁹⁴ As discussed further in Appendix D, these chords provide a guide to the solo only. Maestro frequently employs modal interchange techniques, changing the expected tonality over a given bass note.

⁹⁵ 'One-bar clave' is a common rhythm comprising two dotted quarter-notes followed by a quarter-note.

⁹⁶ The dotted quarter-notes early in the bar suggests a group of 3 follows on from the group of 3 at the end of the preceding bar.

2.3.2 SHAI MAESTRO'S PIANO SOLO (3.33 – 4.41)

Maestro's uses dynamic contour, fluidity and a combination of rhythmic devices, including syncopation, rubato-like phrasing and cross-rhythms, to develop interest in his solo on *Seven Seas*.

EXPLOITATION OF LONG METER

FIGURE 21: USES OF 'LONG 7' IN *SEVEN SEAS*

The figure displays three staves of musical notation in 7/4 time. The first staff, labeled 'Bar 9', shows a melodic line in the treble clef with five accents (^) placed above notes. The second staff, labeled 'Bar 22', also shows a melodic line in the treble clef with five accents (^) placed above notes. The third staff, labeled 'LONG 7', shows a bass line in the bass clef with seven eighth notes, each with an accent (^) placed above the note.

Phrasing according to the 'long' meter is a device that Maestro appears to implement during this solo.⁹⁷ He plays several phrases suggesting use of the 'long 7', the main examples of which occur at bars 9-10 and 22-23, as shown in Figure 21. In both examples, the rhythms employed appear to literally adhere to the long 7/2 meter. In some applications, performers tend to utilize legato phrasing when employing this device, creating a longer 'half-time' feeling (as in the bar 9 example), but it is also possible to apply shorter note values, like in bar 22, as the long meter can simply be used as a tool to more naturally cross over barlines. It cannot be assumed that Maestro was consciously using this approach, but from an analytical perspective the above results suggest its use strongly enough, and it is nonetheless a useful tool for developing improvisations. In either

⁹⁷ Using the 'long meter' refers to playing phrases, sometimes with a 'half-time' feeling, that resolve more according to two bar groups in order to achieve more rhythmic diversity. For example, using the 'long 7' implies playing the 7/2 meter over two bars of 7/4.

application the long meter helps free the performer from the typical constraints of odd-meter claves, increasing rhythmic diversity and phrasing possibilities.⁹⁸

'RUBATO-LIKE' PHRASING

Several of Maestro's lines in this improvisation provided inherent challenges to notate due to deliberately 'loose' rhythmic interpretation. These passages may be thought of as being 'rubato-like', floating over the top of the established pulse whilst not emphasizing any consistent subdivision. The major example of this occurs at bars 29-32 (Figure 22).

FIGURE 22: RUBATO-LIKE PHRASING IN *SEVEN SEAS*

There seem to be loose groupings, based on contour and accenting, governing this line. The notated rhythms are an approximation of Maestro's phrasing – in reality, he was possibly using a rubato-like approach whilst keeping track of the pulse, or otherwise perhaps stretching a more standard rhythmic idea. This device provides contrast to the rhythmically precise lines from bars 21-28 and introduces rhythmic 'rub' against the underlying pulse. Additionally, the strength of the improvised line partially obscures the pulse for short periods, heightening tension. This type of rubato-like phrasing will be discussed further in other upcoming improvisations.

⁹⁸ Improvising in odd meters is challenging, and performers are often rhythmically anchored to the meter's clave out of necessity, which reduces the fluidity of the solo.

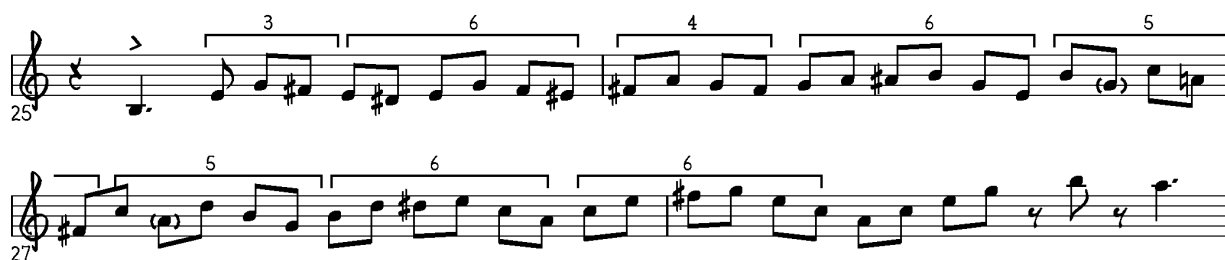
SYNCOPATED 16TH-NOTES

As in other studied pieces, syncopation is widely observable in this solo, albeit in a slightly different application. Whereas the trio has a tendency to employ staccato notes during syncopated passages, this solo exhibits more connected syncopations, as seen at bars 14-15 and 37-39. This invokes a feeling reminiscent of Cuban music and gives Maestro's lines an unflinching forward momentum, particularly towards the conclusion of the solo.

OTHER CROSS-RHYTHMS

Maestro uses varied line contour to outline a series of small groupings through a long improvised line at bar 25 (Figure 23).

FIGURE 23: USE OF ODD GROUPINGS IN *SEVEN SEAS*: BARS 25-28



Using these small alternating groupings seems to help Maestro create fluid and engaging phrases across the barlines of the 7/4 meter, avoiding the common trap of heavily adhering to 4-3 clave, which can sound contrived. The use of this previously identified rhythm, outlining groupings of 5, is particularly effective at manipulating the direction of the line and should be noted:



This rhythm is another staple of Cohen’s fundamental rhythmic language and is observable in other pieces including *Emotional Storm*,⁹⁹ *Nu-Nu*¹⁰⁰ and *Continuo*.¹⁰¹

RHYTHMIC MOTIVIC DEVELOPMENT

FIGURE 24: DEVELOPMENT OF A MOTIF IN *SEVEN SEAS*: BARS 33-36



Maestro makes further use of rhythmic motivic development in this solo. As seen in Figure 24, the same melodic motif is delivered three times, each with rhythmic variation, before being resolved in bar 36. The altered start- and end-points of the repeats of the motif, and the manipulated shape, give the phrase a ‘stretched’ feeling. This develops interest throughout the phrase via repetition and variation of a strong idea, exploiting the listeners’ expectation of the placement of the line. This is further evidence of Maestro’s exceptional command of rhythmic phrasing – he is comfortably able to manipulate phrases within many difficult meters, and only needs to play strong and obvious beats when decided.

⁹⁹ Avishai Cohen, “Emotional Storm,” on *Continuo*, Razdaz Recordz RD4603, 2006, Audio CD.

¹⁰⁰ Avishai Cohen, “Nu-Nu,” on *Continuo*, Razdaz Recordz RD4603, 2006, Audio CD.

¹⁰¹ Avishai Cohen, “Continuo,” on *Continuo*, Razdaz Recordz RD4603, 2006, Audio CD.

RHYTHMIC EXPANSION OR CONTRACTION

Several effective implementations of rhythmic expansion and contraction appear throughout this solo. The example shown in Figure 25 is particularly effective at manipulating the harmonic rhythm because of the use of chords, which amplify the device's effect. In the 'natural line', seen on the left, the chords have been placed according to the strong divisions of the meter.¹⁰² It is apparent from comparison to the expanded line (on the right) that each chord has been delayed such that there is temporary rub between the accompaniment and improvisation.

FIGURE 25: EXAMPLES OF EXPANSION IN *SEVEN SEAS*: BARS 17-18

"Natural" line Expanded line

Similarly in Figure 26, the strength which Maestro starts his line on beat 2 of bar 25 is another clear example of expansion.¹⁰³ It is one of the only points in the solo where a line starts on beat 2 – the more prevalent starting points are beats 1 or 3 – and is effective in challenging the expected placement of the beginning of the line.

FIGURE 26: EXAMPLE OF EXPANSION IN *SEVEN SEAS*: BAR 25

"Natural" line Expanded line

¹⁰² As mentioned, these bars of 7/4 are divided into 4/4 and 3/4.

¹⁰³ Note that this line is actually doubled in an octave below.

2.3.3 SUMMARY OF DEVICES IN *SEVEN SEAS*

As with all solos examined so far, Maestro predominantly applies ‘inside’ harmonic choices on *Seven Seas*.¹⁰⁴ He uses many similar general devices to those used in early pieces to develop interest, including:

- Syncopated 16th-notes
- Other cross-rhythms
- Rhythmic motivic development
- Rhythmic expansion.

This solo also introduces two important devices.

1. The first, a compositionally linked device, is the exploitation of long meters. This device is more applicable to ‘simpler’ meters like the 7/4 of *Seven Seas*.¹⁰⁵ Long meters are easy to exploit and allow for greater phrasing possibilities and freer lines.
2. Rubato-like phrasing is an effective general device for varying lines and texture, and creating rhythmic tension. Only a few instances were notable in this solo, but the forthcoming transcriptions will further evidence the trio’s use of this device.

¹⁰⁴ In the application of harmony, ‘inside’ is usually synonymous with diatonic, or at least consonant, note choice. In contrast, ‘outside’ notes are mostly non-diatonic and are more dissonant.

¹⁰⁵ The 7/4 meter is relatively a relatively ‘simple’ meter compared to the far more complex composite meters of *Pinzin Kinzin*, *Chutzpan*, and several other Cohen compositions.

2.4 SEATTLE

Compositionally, *Seattle's* solo section is far simpler than those previously examined. This provides an opportunity to examine rhythmic devices used in a more open setting, contrasting the rhythmically complex improvisational frameworks discussed so far.

2.4.1 IMPROVISATIONAL FRAMEWORK

The framework for the bass solo on *Seattle* is very simple, comprising a Cmi to F7 vamp over two bars of 3/4 time, as shown in Figure 27.¹⁰⁶

FIGURE 27: SEATTLE BASS SOLO VAMP



2.4.2 AVISHAI COHEN'S BASS SOLO (1.33 – 2.21)

The bass solo is an important section in the development of this piece. After a solo piano introduction and sensitive melodic delivery by the ensemble Cohen's solo begins loosely and open, building through a stronger rhythmic section towards its conclusion. The piece does not return to the melody following the solo – instead there is a very brief coda based on the same vamp before the piece ends. As the short first track on the album, this provides a fitting introduction to the aesthetic of the record and leads well into the more complex *Chutzpan*.

¹⁰⁶ Avishai Cohen, *Gently Disturbed: Music for Trio* (UK: Razdaz Recordz, 2009), 4.

RUBATO-LIKE PHRASING

Many of the rhythms in the full transcription of this piece have been slightly approximated, particularly through the early sections of the solo. Cohen stretches these approximated rhythms using a very legato tone, affording his lines a loose, rubato-like feeling. This approach invokes a floating, melodic quality, creates small pockets of micro-tension in the rhythm, and contrasts the later part of the solo, which is strongly locked into the pulse. Cohen's rubato-like phrasing may have been influenced by classical interpretations, with the push-and-pull of the line giving each note in these passages its own life and character. The whole first section from bars 1-21 is treated in this way, but the most notable moments are at bars 9-14 and 18-20.

RHYTHMIC 'WIPES'

This juncture provides an ideal point at which to introduce the idea of a rhythmic 'wipe'. Best be described as a sudden flourish that serves to delineate several ideas, or to change the texture of an improvisation, this device is a common feature of Cohen's improvisations. These wipes are most likely spontaneous and intuitive – more of an aside or gesture than a truly practiced concept – but nonetheless they are deployed in a relatively consistent manner. In this solo, there is a rapid, scalar wipe that occurs at bars 23-25 (Figure 28). All material prior to this has the floating, rubato-like phrasing described above, whereas later lines contrast this feeling by predominantly locking into the rhythmic grid. The wipe provides an effective and dramatic delineation of these two approaches, and helps shape the solo towards its conclusion.

FIGURE 28: APPLICATION OF RHYTHMIC WIPE IN *SEATTLE*

.....LOOSE, RUBATO-LIKE IMPROVISATION.....

RHYTHMIC 'WIPE'.....

21

.....RHYTHMIC 'WIPE'..... RHYTHMICALLY PRECISE IMPROVISATION.....

25

EXPLOITATION OF SHORT METER

Much of the later part of Cohen's solo is based on the 'short 3' meter.¹⁰⁷ Similarly to the exploitation of a long meter, as in *Seven Seas*, this diversifies phrasing options and helps break-up the rhythms used in odd-meters. In *Seattle*, Cohen uses the short 3 to invoke the sound of a 6/8 meter, as seen in Figure 29, which contrasts the piece's general 3/4 feeling. Quavers grouped in threes and the recurring crotchet-quaver rhythm particularly imply the 6/8 meter.

FIGURE 29: EXCERPT OF THE USE OF THE 'SHORT 3' METER IN *SEATTLE*

33

37

41

¹⁰⁷ Using the 'short meter' refers to playing phrases, often with a double-time feeling, that resolve more according to half-bar groups in order to achieve more rhythmic diversity. For example, using the 'short 3' implies playing two 3/8 bars per bar of 3/4.

OTHER CROSS-RHYTHMS

Cohen further develops the build towards the end of his solo by using a strong rhythm consisting of pairs of 8th-notes. Whilst not a cross-rhythm in the 3/4 meter, this idea suddenly and decisively contrasts the earlier invoked and maintained 6/8 (short) meter, and can possibly be considered to be a cross-rhythm to that meter. This line has been presented in Figure 30, rewritten in 6/8 to emphasize the apparent effect.¹⁰⁸ Combined with the ascending shape of the line, this five-bar passage creates tension and drive through to the strong resolution on the low C in bar 49.

FIGURE 30: TWO QUAVER CROSS-RHYTHM IN *SEATTLE*

The figure shows two staves of musical notation in 6/8 time. The first staff contains five bars of music. The first bar has a bass clef, a key signature of one flat, and a common time signature. It features a sequence of eighth notes: G2, A2, B2, C3, D3, E3, F3, G3, A3, B3, C4. The notes are grouped into pairs with a '2' above each pair. The second bar has a quarter rest. The third bar continues the sequence: D3, E3, F3, G3, A3, B3, C4. The fourth bar continues: D4, E4, F4, G4, A4, B4, C5. The fifth bar continues: D5, E5, F5, G5, A5, B5, C6. The second staff also contains five bars. The first bar has a bass clef, a key signature of one flat, and a common time signature. It features a sequence of eighth notes: G2, A2, B2, C3, D3, E3, F3, G3, A3, B3, C4. The notes are grouped into pairs with a '2' above each pair. The second bar continues: D3, E3, F3, G3, A3, B3, C4. The third bar continues: D3, E3, F3, G3, A3, B3, C4. The fourth bar continues: D3, E3, F3, G3, A3, B3, C4. The fifth bar continues: D3, E3, F3, G3, A3, B3, C4. The notation includes various accidentals and a final note with an accent mark.

Earlier, Cohen also used a loose interpretation of the 4-over-3 polyrhythm to create tension against the 3/4 meter. Examples of this dotted 8th-note rhythm occur at bars 2-3, 10 and 12-13.

¹⁰⁸ See Appendix D for the actual 3/4 notation.

2.4.3 SUMMARY OF DEVICES IN *SEATTLE*

Just as the form of *Seven Seas* allowed for the exploitation of the long 7, the simple 3/4 form of *Seattle* is conducive to the exploitation of the short 3 meter, leading to a feeling of 6/8. Long passages utilize this approach, contrasting the 3/4 melody section of the piece and giving the improvisation strong drive.

This solo also provides further evidence of the use of rubato-like phrasing. Cohen's application here is much more widespread than Maestro's on *Seven Seas*, particularly early on, providing striking contrast to the rhythmically precise approach that follows.

This solo also facilitates the introduction to rhythmic wipes. This device is a vastly contrasting gesture used to start, finish or otherwise delineate ideas within a solo, and is usually a throwaway-type idea.

Additionally, there are obvious uses of other less-complex cross-rhythms.

2.5 THE EVER EVOLVING ETUDE

The Ever Evolving Etude is a 6/4 tune built on three bars of 4/4. It provides excellent evidence of a specific approach that the trio uses when playing this type of meter, where 4/4 phrasing is used over 6/4 to change the predictability of phrasing and shift harmonic emphasis.

2.5.1 IMPROVISATIONAL FRAMEWORK

As he discusses in his 2010 interview with *Bass Player Magazine*, Cohen has an affinity for playing tunes built of three bars of 4/4.

Cohen likes to use groupings of three bars of 4/4, floating over an underlying feeling of 6/4. Says Cohen, "I love the feeling of two against three, or playing in six."¹⁰⁹

He specifically identifies tunes that are constructed in this way, including *The Ever Evolving Etude*. The chord progression of the vamp divides the meter into 3/2. Each half-note is representative of a 4/8 bar, and thus the vamp is analogous to three bars of 4/4, given its double-time (semi-quaver based) feeling. However, as will be shown, this structure has further effects on the trio's approach to improvisation.

Solos on *The Ever Evolving Etude* consist of short passages traded between the Cohen and Maestro. Cohen plays twice through the bass vamp, shown in Figure 31, before the key modulates up a semitone for an identical vamp for the piano solo.¹¹⁰ This pattern is repeated several times. On

¹⁰⁹ John Goldsby, "Global Player: Avishai Cohen," *Bass Player* vol. 21, issue 7 (July 2010): 30.

¹¹⁰ Avishai Cohen, *Gently Disturbed: Music for Trio* (UK: Razdaz Recordz, 2009), 30.

the album *Gently Disturbed*, similar sections occur on *Variations in G Minor*, also constructed of 3 bars of 4/4, and *Umray*.¹¹¹

FIGURE 31: IMPROVISATIONAL FRAMEWORK FOR *THE EVER EVOLVING ETUDE*

OPEN TRADE SOLO SECTION
BASS SOLO
Cm Fm G7 Cm Fm G7

PIANO SOLO
C#m F#m G#7 C#m F#m G#7

It is important to note that again the prevailing harmony is extremely simple, in this case comprising of a very basic i-iv-V progression in both keys.

¹¹¹ Avishai Cohen, "Umray," on *Gently Disturbed*, Sunnyside SSC4607, 2008, Audio CD.

2.5.2 TRADED IMPROVISATIONS (3.16-4.16)

EXPLOITATION OF ODD SOLO FORM

This section of traded improvisations clearly demonstrates the trio's propensity to exploit the slightly odd solo form to diversify phrasing. In Cohen's first passage and Maestro's second, each soloist observably phrases in 4/4, despite the harmony moving every two beats within the 6/4 meter. Figures 32 and 33 present the phrases written in 6/4, as transcribed, and facilitate comparison to a 4/4 interpretation.

FIGURE 32: PHRASING IN COHEN'S FIRST PASSAGE OF *THE EVER EVOLVING ETUDE*

The figure displays two systems of musical notation. Each system consists of three staves. The top staff is in 6/4 time, showing a melodic line with phrasing slurs. The middle staff is in 4/4 time, showing a phrasing line with vertical tick marks corresponding to the 6/4 staff. The bottom staff is in 4/4 time, showing a simplified melodic line. Chords are indicated above the 4/4 staves: Cm, Fm, G7, Cm, Fm, G7. The first system is labeled 'BAR 1' and the second system is labeled 'BAR 3'.

FIGURE 33: PHRASING IN MAESTRO'S SECOND PASSAGE OF *THE EVER EVOLVING ETUDE*

The image displays two systems of musical notation. Each system has a top staff in 6/4 time and a bottom staff in 4/4 time. The key signature is three sharps (F#, C#, G#). The top staff is labeled 'BAR 13' and 'BAR 15'. The bottom staff is labeled 'BAR 13' and 'BAR 15'. The chord progression in the bottom staff is C#m1, F#m1, G#7, C#m1, F#m1, G#7. The music features complex rhythmic patterns, including triplets and various note values.

These examples clearly demonstrate that the emphasis of the chord progression is altered as a result of this approach. If explicitly following the harmony, the 'three bar' vamp in the 4/4 meter sees the i-minor chord fall on beat 1 of the first bar, V7 chord in bar 2, and the iv-minor chord in bar three. Conversely, phrasing in 6/4 makes the i-minor chord the target of most lines. This fundamental difference in approach allows the soloist more freedom from the possible rigidity of the short solo vamp. That this type of phrasing exploitation is in such apparent use by both soloists strongly suggests that this is actually a considered approach, not simply a coincidence. Figure 34 demonstrates the generic application of this approach.

FIGURE 34: GENERIC APPLICATION OF 4/4 PHRASING OVER 6/4

The original 6/4 vamp is treated by the soloist according to the re-written 4/4 vamp, which is equivalent in length and form. Although similar, the harmonic emphasis has changed, and inherent differences in the performers' treatment of 4/4 and 6/4 mean that different phrases will be resultant.

RUBATO-LIKE PHRASING

Cohen again employs rubato-like phrasing in this solo, most notably in the first bar. Figure 35 demonstrates two possible notations of this phrase. In reality, the actual rhythm is a manipulation somewhere between these possibilities.

FIGURE 35: RUBATO-LIKE PHRASING IN BAR 1 OF *THE EVER EVOLVING ETUDE*

SYNCOPATED 16TH-NOTES

There are several instances of extended syncopation in this solo, but the most effective and obvious is Shai Maestro's opening line at bar 5, shown in Figure 36. Like in *Seven Seas*, Maestro's connected delivery of these syncopations suggests Latin phrasing, driving the line forward.

FIGURE 36: SYNCOPATION IN MAESTRO'S OPENING LINE FROM *THE EVER EVOLVING ETUDE*



OTHER CROSS-RHYTHMS

These improvisations also reconfirm the prevalence of the 5-note cross-rhythm. Maestro begins the idea in closing his first section (Figure 37), which is then echoed by Cohen (Figure 38).

FIGURE 37: MAESTRO'S USE OF 5 IN *THE EVER EVOLVING ETUDE*: BAR 8



FIGURE 38: COHEN'S USE OF 5 IN *THE EVER EVOLVING ETUDE*: BAR 9



RHYTHMIC WIPES

A rhythmic wipe is used by Cohen in his third section (bars 18-19) to signify the end of the improvisations. Whilst more of a flurry of notes than the fast scalic passages of other instances, it still acts to delineate the solos from the next interlude section.

RHYTHMIC EXPANSION/CONTRACTION



There are several interesting instances of expansion and contraction that alter the harmonic rhythm of the solo. Going from bar 3 to 4, Cohen delays the last two notes of his line by a semi-quaver – an expansion – which delays the resolution of the line and manipulates the harmonic rhythm, as shown in Figure 39.

FIGURE 39: COHEN'S USE OF EXPANSION IN BAR 3-4 OF *THE EVER EVOLVING ETUDE*

"Natural" line	Expanded line
	

Maestro also manipulates harmonic rhythm during his solo. One example of contraction occurs at bar 14 (Figure 40), where he anticipates the bar by an 8th-note.

FIGURE 40: MAESTRO'S USE OF CONTRACTION IN BAR 14-15 OF *THE EVER EVOLVING ETUDE*

"Natural" line	Contracted line
	

2.5.3 SUMMARY OF DEVICES IN *THE EVER EVOLVING ETUDE*

The improvisations on the *Ever Evolving Etude* primarily give strong insight into the effect of the slightly odd solo form on the trio's rhythmic phrasing. Their employed approach of playing in 4/4 across the 6/4 form inherently alters the emphasis of the harmonic rhythm, and is specific to pieces composed in this way. This is seen to be a useful device as it is simple to implement, yet has notable rhythmic effects.

Additionally, this piece provides reiteration of the use of identified devices, including:

- Rubato-like phrasing
- Syncopated 16th-notes
- Other cross-rhythms
- Rhythmic wipes
- Expansion/contraction of typical phrasing

Finally, *The Ever Evolving Etude* is a feature of traded improvisations, which also occur in other Cohen works such as *Variations in G Minor* and *Umray*. Traded sections allow for interplay between soloists and rapid delineation of ideas.

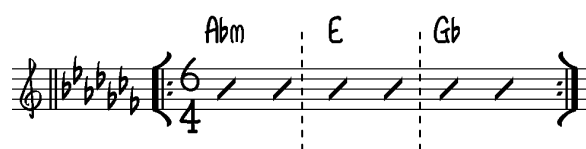
2.6 STRUCTURE IN EMOTION

The bass solo from *Structure in Emotion* is the culmination of a slow build throughout the piece. It is beautifully constructed, with subtle rhythmic variation lending tension and shape to the music. It has been selected for analysis because it provides further examples of Cohen's rubato-like phrasing and the treatment of 6/4 meters using three bars of 4/4.

2.6.1 IMPROVISATIONAL FRAMEWORK

Similar to *The Ever Evolving Etude*, the 6/4 meter of the *Structure in Emotion* solo section (Figure 41) is effectively constructed of three bars of 4/8.¹¹² This encourages the alteration of practiced and expected resolution points via the use of the discussed 4/4 phrasing approach.

FIGURE 41: *STRUCTURE IN EMOTION* SOLO SECTION



The harmony is again very diatonic, and much of the interest is generated through the application of rhythm and lyricism of Cohen's exquisite bass sound.

¹¹² Avishai Cohen, *Gently Disturbed: Music for Trio* (UK: Razdaz Recordz, 2009), 49.

2.6.2 AVISHAI COHEN'S BASS SOLO (4.32 – 5.35)

RUBATO-LIKE PHRASING

Cohen's solo on *Structure in Emotion* highlights his control over subtle rhythmic variation. As with the *Seven Seas* and *Seattle* transcriptions, some of the rhythms used are difficult to notate exactly due to their loose, rubato-like nature. The line delivered at bar 1, shown to the left of Figure 42, presents one example of this. Whilst the notated rhythm was considered the closest representation of the actual phrasing, it could equally have been described by either of the proposed alternatives. Other notable examples occur at bar 2 (Figure 43) and bars 7-8.¹¹³

FIGURE 42: POSSIBLE REPRESENTATIONS OF THE OPENING LINE OF *STRUCTURE IN EMOTION*

Notated rhythm	Alternative 1	Alternative 2

FIGURE 43: POSSIBLE REPRESENTATIONS OF BAR 2 OF *STRUCTURE IN EMOTION*

Notated rhythm	Alternative 1	Alternative 2

As previously discussed, these rubato-like lines create rhythmic tension. They also invoke a lyrical, almost classically-inspired feeling to the lines, lending each more character than with more literal interpretations. This effect is most important in this solo, where lyrical melodic development provides the major interest. As in Cohen's earlier solo on *Seattle*, these lines also contrast the

¹¹³ Note: the examples in Figures 42 and 43 should be 8va, but are presented this way for clarity.

unflinchingly accurate interpretation of other passages, such as those at bars 9-11, 17 and 23. The melodic effect of the rubato-like phrasing is greatly enhanced by Cohen's well connected sound and keen control of legato and staccato ornamentation.

EXPLOITATION OF ODD SOLO FORM

As in the improvisations on *The Ever Evolving Etude*, Cohen uses 4/4 phrasing to negotiate the slow 6/4 meter and to manipulate the natural harmonic rhythm, creating the illusion of a more complex progression. This is particularly obvious in the first six bars of his solo (Figure 44).

FIGURE 44: EXPLOITATION OF THE FORM IN *STRUCTURE IN EMOTION*

The musical score for Figure 44 consists of six bars of music, organized into three systems. Each system contains a treble clef staff (6/4 time) and a bass clef staff (4/4 time). The key signature is five flats (B-flat major/C minor). The harmonic progression in the bass clef staves is Abm1, E, Gb, Abm1, E, Gb. The melodic line in the treble clef staves features triplets and a fermata over the final note of each bar. The number '5' is written at the end of each treble staff, indicating a fifth finger fingering for the final note.

Again, this results in an apparent change to the harmonic rhythm. Cohen's 4/4 phrasing divides the two bars of 6/4 into 3 bars of 4/4, emphasizing the Ab minor in the first bar, Gb in the second bar and E in the third bar. In the 6/4 realization, the tendency would often be to develop lines towards the Ab minor chord.

SYNCOPATED 16TH-NOTES

Syncopated notes are again a feature of Cohen's improvisation, and are observable in bars 1-3 and 10-11, amongst others.

RHYTHMIC MOTIVIC DEVELOPMENT

Rhythmic development of the improvised melody forms much of the interest in this solo. Whilst the variations are subtle in places, they provide the perfect amount of elaboration each time.

FIGURE 45: RHYTHMIC VARIATION OF AN IMPROVISED MELODY: *STRUCTURE IN EMOTION*



Figure 45 demonstrates a short example of some of this rhythmic development. Note the extreme melodic similarity of the lines at bars 1 and 5, and the clever rhythmic variety used to continue development. This variation includes use of the discussed rubato phrasing. There are many similar rhythmic developments that occur throughout the solo, and these can be viewed in Appendix G.

RHYTHMICALLY REPEATED NOTES

Only a single major example of repeated notes occurs in this solo, at bar 20, but it is an obvious and significant one. This further reinforces the prevalence of this device in use by the trio.

RHYTHMIC WIPES

This flurry of repeated notes also acts in place of a wipe, and serves to signal the end of Cohen's solo. Earlier, he used a short but accurate scalic wipe in bar 4 to contrast the surrounding rubato-like phrasing and to reset before developing the melodic fragment presented in bars 1-4.

OTHER CROSS-RHYTHMS

Cohen makes repeated use of the 3-note polyrhythm during this solo. 16th-notes are grouped in threes, as seen in bars 9 and 18 (Figure 46), to develop rhythmic tension and give the line forward propulsion.

FIGURE 46: CROSS-RHYTHM IN BAR 18 OF *STRUCTURE IN EMOTION*



2.6.3 SUMMARY OF DEVICES IN *STRUCTURE IN EMOTION*

Cohen's solo on *Structure in Emotion* is an excellent feature of his rubato-like phrasing. Importantly, it provides further evidence confirming the trio's 4/4 approach to playing over 6/4 meter tunes, which is specific to compositions built on similarly constructed 6/4 forms.

Cohen also uses the following devices to shape his solo around the beautiful but harmonically simple improvised melodies:

- Syncopated 16th-notes
- Rhythmic motivic development
- Rhythmically repeated notes
- Rhythmic 'wipes'
- Other cross rhythms

CHAPTER 3: TRENDS IN RHYTHMIC USAGE

Through analysis of transcribed works (summarized in Table 2), a number of prevalent rhythmic devices have been identified in the music of the Avishai Cohen Trio. The results of this study are summarized in Table 3, below.

TABLE 2: SUMMARY OF SOLO TRANSCRIPTIONS

TRANSCRIPTION	TUNE	INSTRUMENT(S)
1	<i>Pinzin Kinzin</i>	Piano
2	<i>Chutzpan</i>	Piano
3	<i>Chutzpan</i>	Bass
4	<i>Seven Seas</i>	Piano
5	<i>Seattle</i>	Bass
6	<i>The Ever Evolving Etude</i>	Bass and piano 'trading'
7	<i>Structure in Emotion</i>	Bass

TABLE 3: SUMMARY OF DEVICES USED

COMPOSITION-SPECIFIC DEVICES	TRANSCRIBED SOLO							TOTAL USES
	1	2	3	4	5	6	7	
Simple harmonic progression	√	√	√	√	√	√	√	7
Exploitation of parallel meters	√	√	√					3
Exploitation of odd solo form						√	√	2
Exploitation of long/short meter				√	√			2
GENERAL RHYTHMIC DEVICES								
Rubato-like phrasing				√	√	√	√	4
Rhythmically repeated notes	√	√	√				√	4
Rhythmic 'wipes'					√	√	√	3
Other cross-rhythms	√		√	√	√	√		5
Syncopation	√	√	√	√		√	√	6
Rhythmic motivic development	√			√			√	3
Rhythmic expansion/contraction	√			√		√		3

3.1 COMPOSITION-SPECIFIC DEVICES

It is clear from the results in Table 3 that the trio employs different composition-specific approaches for different improvisational frameworks. Obviously they are not mutually exclusive approaches by definition, but in each of the analyzed pieces only one has been applied at a time.

- For rhythmically complex pieces such as *Pinzin Kinzin* and *Chutzpan*, the trio favors exploiting the compositionally-established ‘parallel meters’. This allows for striking rhythmic diversity and introduces the possibility of heightened rhythmic effect through simultaneous adoption. As with many of the devices this is relatively simple in principle but provides sophisticated results. Figure 47 shows the generic possibility for exploitation on *Pinzin Kinzin* as an example. Soloists and accompanists can swap rhythmic emphasis between these two established meters at will.

FIGURE 47: GENERIC APPLICATION OF PARALLEL METERS IN *PINZIN KINZIN*

The figure illustrates the application of parallel meters in *Pinzin Kinzin*. It consists of two systems of musical notation, each with a drum part and a bass line, and a double-headed arrow indicating the relationship between them.

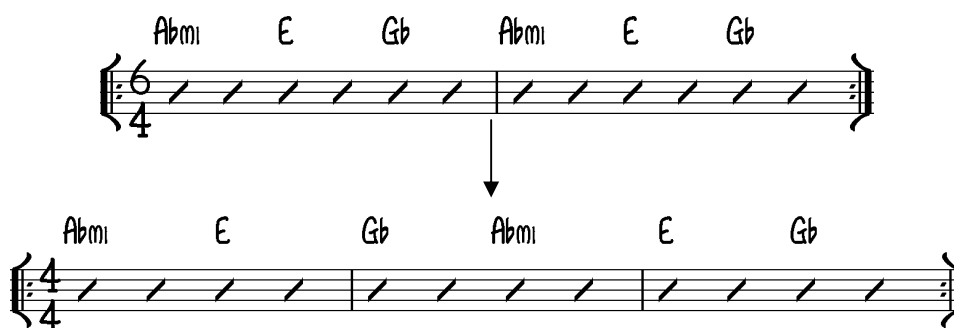
The top system is in 4/4 time. The drum part consists of a series of eighth notes. The bass line consists of a series of eighth notes. The chords are labeled as Emi, Bmi7, C, Ami7, D/F#, Emi/G, and A.

The bottom system is in 9/16 time. The drum part consists of a series of eighth notes. The bass line consists of a series of eighth notes. The chords are labeled as Emi, Bmi7, C, Ami7, D/F#, Emi/G, and A.

A double-headed arrow points from the 4/4 system to the 9/16 system, indicating the relationship between the two meters.

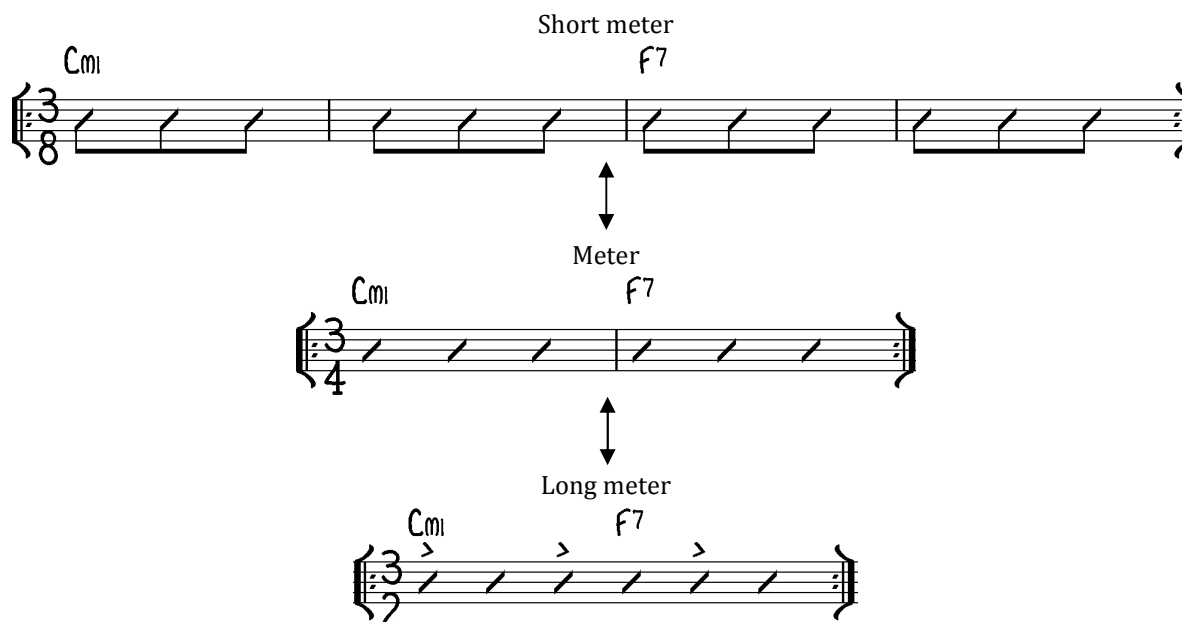
- Specific to a number of Cohen's other tunes is the approach of playing deliberately in 4/4 over 6/4. This disrupts the normal pattern of 6/4 lines, and allows for different phrasing possibilities and harmonic emphasis, particularly on odd-length vamps. This device was notable during analysis on *Structure in Emotion* and *The Ever Evolving Etude*, but is also apparent in works such as *Variations in G Minor*. As an example, Figure 48 demonstrates the generic application of this device with the chords from *Structure in Emotion*.

FIGURE 48: GENERIC APPLICATION OF 4/4 PHRASING OVER 6/4



- On more pieces with more traditional and open meters, such as the 3/4 *Seattle* or 7/4 *Seven Seas*, long and short meter ideas are very effective devices used to diversify phrasing. Figure 49 outlines the generic possibilities of swapping between and the established meter and its relative short and long meters, using the chords to *Seattle* as an example. Note that the length of the vamp remains exactly identical in each case.

FIGURE 49: GENERIC APPLICATIONS OF SHORT AND LONG METERS



The exploitation of parallel meters and 4/4 phrasing over odd-length 6/4 forms are ideas that are particularly interesting due to their sophisticated consequences and ease of implementation. These devices are also noted as being the most idiosyncratic of the trio. Pieces containing obvious parallel meter frameworks such as *Chutzpan* tend to be built around riff-based piano and bass unison lines that the trio is known for, whilst a number of works by Cohen, including three on *Gently Disturbed* alone, demonstrate the influence of the 4/4 over 6/4 phrasing devices. Whilst often employed in Cohen's music, long- and short-meter phrasing is less unique to the trio because of its widespread use by other jazz artists.

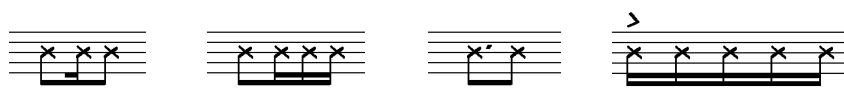
3.2 GENERAL RHYTHMIC DEVICES

In addition to the more important compositional devices, a number of more general devices were identified. Of these, several are commonly used devices that have widespread usage throughout the lineage of jazz. These include:

- Rhythmic motivic development
- Expansion and contraction
- Syncopated 16th-notes
- Other cross-rhythms

It is important to note that the trio uses some unique applications of these last two devices:

- Syncopated 16th-notes applied over parallel meter systems can be particularly effective. They are relatively straightforward to execute, even if the accompaniment is complex, and when used in this situation cause very interesting rhythmic effects.
- Many of the cross-rhythms used by the trio consist of five-note groupings. The prevalence of these ideas, and the diverse way in which they are applied, forms an identifiable part of the trio's improvisational language. These rhythms are also particularly notable in many of Cohen's compositions. There are various incarnations of the five-note groupings, but major ones include:



More interesting are the following identified improvisational devices:

- Rubato-like phrasing, applied over strict time, is a noted feature of several of the improvisations. This device can add a lyrical, melodic quality to lines, introduce micro-tension, obscure the beat, and provide contrast to passages deeply rooted in the subdivisions of the pulse. While not unique to Cohen's group, the trio is adept at the use of this device.
- Rhythmically repeated notes are an instantly identifiable trait of Cohen's music. Whilst they are plainly obvious in many compositions, they are just as identifiable in the improvisations of both Maestro and Cohen. The device is applied to disrupt phrases, strengthen lines, delineate sections or emphasize rhythmic ideas.
- Finally, rhythmic wipes were observed in a number of improvisations. These rapid, throwaway-type gestures are often implemented by Cohen to change the mood or direction of an improvisation, or to end an idea.

3.3 UNIQUENESS OF APPROACH

The rhythmic approach of the Avishai Cohen Trio differs generally from the approach of many other modern groups in a number of important ways.

Most notably, Cohen's approach to odd time playing is largely intuitive. He has developed Latin and Middle Eastern influences to create his own rhythmic identity with its unique meters. In contrast, many other artists tend to write or arrange complex meters from a more cerebral standpoint. Cohen's approach allows for a more unique and melodic result.

The complexity in Cohen's music often stems from the juxtaposition of a very complex meter and a relatively simple-to-implement rhythmic device. Examples of this include the syncopation of 16th-notes over the parallel meters of *Chutzpan*, or playing three bars of 4/4 phrasing over two bars of 6/4 in *The Ever Evolving Etude*. Some other artists prefer to create rhythmic complexity over relatively simple odd-meters via very complex layers of polyrhythms or sub-divisional manipulations. This clear contrast in approach remains a fundamental point of difference between Cohen's music and that of many other contemporary artists.

The beat is not usually obscured in Cohen's music for long periods of time, usually due to the intrinsic strength of the meter and the trio's exceptional command of it. Other modern artists often develop long periods of extreme rhythmic tension via layers of complex polyrhythms and metric modulations.

The solos in Cohen's music usually form a relatively short part of a longer work. Composed figures often lead in and out of improvised sections, influencing the length, flavor and shape of the solos. The resultant pieces (and albums) then tend to form integrated musical statements, which the author finds to be a highly appealing quality. Contrastingly, long improvisations often dominate the recordings of other artists. Whilst very impressive in its own way, this approach sometimes places more emphasis on the abilities of individuals rather than the compositions and the sound of the group. Despite the trio following a somewhat similar approach in live applications it is still an important point of difference for Cohen's music.¹¹⁴

The soloists seem to have complete command of the meters in Cohen's recordings. The players do not appear to be 'on-the-edge' rhythmically, despite inherent complexities. Contrastingly, some other recordings feel rhythmically tense (even 'dangerous') because the performers do not seem to have the same command of difficult meters, or because they are 'pushing the boundaries'. Whilst exciting at a live show, this can sometimes sound unpolished on studio recordings, where performances can be repeatedly scrutinized. Further to the above discussion, this control of improvisation makes the solos feel very deliberate within the context of the pieces, giving them weight and complementing the aesthetic established through ensemble passages. Cohen's group is able to achieve this without sacrificing depth in complexity or musicality.

The way in which these factors conspire to create melodic and complete musical statements despite inherent rhythmic complexity and relatively uncomplicated harmony is the crux of the Avishai Cohen Trio's unique approach and the major point of interest for the author.

¹¹⁴ Solos tend to be extended and/or redistributed at live shows, particularly on open tunes like *Seven Seas*. This is appropriate because live performances have a very different lifespan and purpose to recorded albums. Additionally these more open solos still exhibit a reasonable degree of control and appreciation of context within a given piece, and in general are not overly lengthened.

CHAPTER 4: CONCLUSION

The Avishai Cohen Trio's unique approach to rhythm is born out of Cohen's own diverse list of influences. The music of his native Israel, Jaco Pastorius, Ray Brown, western classical music, Latin music and modern jazz have seamlessly combined to define Cohen's musical voice. Cohen's trio frequently performs in very complex yet organic-sounding meters while maintaining complete rhythmic command. This results in improvisations that contribute to the beautiful and deep music despite its rhythmic complexity and relative harmonic simplicity. Through analysis of six of Cohen's compositions, key rhythmic devices used to achieve this have been identified.

It has been determined that the underlying compositional framework of a piece greatly influences the trio's improvising approach, which is adaptable according to context. Many of Cohen's tunes are composed with previously discussed 'parallel meter' frameworks, where two separate meter systems occupying the same total temporal space, with the same basic subdivision, are juxtaposed. This allows both the soloist and accompanists to phrase in either parallel meter, to great rhythmic effect. It is a relatively simple solution to playing in odd meters, but is certainly effective. This category of pieces includes the analyzed works *Chutzpan* and *Pinzin Kinzin*.

Another specific sub-set of Cohen's pieces, including *The Ever Evolving Etude* and *Structure in Emotion*, are built on 6/4 meters based on three bars of 4/4. The transcriptions reveal that in these tunes the soloists have a propensity for explicitly phrasing using three bars of 4/4 over two bars of 6/4. This device manipulates the performers' phrasing, inherently changing the harmonic emphasis and consequent improvising. Again, this simple-to-implement device is nonetheless effective.

On more general meters, such as the 7/4 of *Seven Seas* or the 3/4 of *Seattle*, the trio takes a more standard rhythmic approach, but does have a tendency to extensively exploit the long (half-time) and short (double-time) meters, again signifying a concern with layers of pulse, analogous to the exploitation of parallel meters.

The study also identified other more general rhythmic devices pertaining to improvising. The most interesting and idiosyncratic of these include the use of rhythmically repeated notes, rubato-like phrasing and employing rhythmic wipes, all of which provide a wider range of rhythmic expression. These are each effective at manipulating the aesthetic of a solo and acting as 'pivot-points' for directional changes.

Common jazz devices, including rhythmic motivic development, expansion and contraction, syncopated 16th-notes and other cross-rhythms, are also used. It is important to note that the effects of these more trivial devices are altered when used in parallel meter contexts. As discussed, syncopation is a particularly good example of this – syncopation by the soloist from within the simple parallel meter sounds profoundly different when juxtaposed against accompaniment based in the more complex parallel meter, as in *Chutzpan*.

In addition to furthering the author's interest in the music of the Avishai Cohen Trio, the process of undertaking this study has also noticeably and positively affected his own playing. All three compositionally-linked devices identified were able to be incorporated into the author's recent performance recital, helping to create new rhythmic effects and influencing the diversity of the soloists' phrasing.¹¹⁵ Whilst many of the more general rhythmic devices are already in use by

¹¹⁵ See Appendix H for some examples of the author's applications of these devices.

the author, rhythmically repeated notes, rubato-like phrasing and rhythmic wipes have been explored, allowing for a wider palette of expression in improvisation.

This investigation has uncovered a number of interesting aspects of rhythm used in Avishai Cohen's music, but it has far from exhausted the research possibilities in the field. Different paths of inquiry are available for further study by other researchers, and these include:

- a study of how Cohen's rhythmic language has developed by examining a selection of pieces spanning his entire recorded work;
- an investigation into the rhythmic elements borrowed by Cohen from his Israeli and wider Middle-Eastern influences;
- a direct comparison piece contrasting the Avishai Cohen Trio to another modern piano trio, such as the Brad Mehldau Trio or Esbjörn Svensson Trio;
- holistic analysis of a particular album, including rhythmic and harmonic aspects.

It is hoped that the findings uncovered by this study of the Avishai Cohen Trio will inform others on the unique and idiosyncratic aspects of rhythm in their music. The devices identified are well within the technical limitations of most established jazz musicians, but the sophisticated application of each makes them unique and interesting. To this end, one hopes these results will provide impetus for musicians to improve the integration of writing and improvisation in odd meters, and develop more natural sounding approaches to negotiating these challenging rhythmic structures, as it has done for the author.

APPENDIX A: PINZIN KINZIN PIANO SOLO

3:32-4:37

TRANSCRIBED BY NICHOLAS ABBEY

$\text{♩} = 112$

Emi Bmi7 C Ami7 D/F# Emi/G A Emi Bmi7 C E/G# D/F# E/G# Ami

5

9

13

17

Emi Bmi7 C Ami7 D/F# Emi/G A Emi Bmi7 C E/G# D/F# E/G# Ami

21

Emi Bmi7 C Ami7 D/F# Emi/G A Emi Bmi7 C E/G# D/F# E/G# Ami

25

Emi Bmi7 C Ami7 D/F# Emi/G A Emi Bmi7 C E/G# D/F# E/G# Ami

29

Emi Bmi7 C Ami7 D/F# Emi/G A

31

Emi Bmi7 C E/G# D/F# E/G# Ami

NOTE: The bass clef part is intended as a guide to the groove for analytical purposes and is not a literal representation of Maestro or Cohen's accompaniment.

APPENDIX B: *CHUTZPAN* PIANO SOLO

1:41-2:55

♩ = 126

TRANSCRIBED BY NICHOLAS ABBEY

Cm1 Bb Ab Eb Fm1 G7 Cm1 Bb Eb Fm1 G7

Bbm1 Ab Eb Fm1 G7 Bbm1 Ab Eb Fm1 G7

Cm1 Bb Ab Eb Fm1 Gm1 Cm1 Bb Eb Fm1 Gm1

Bbm1 Ab Eb Fm1 Gm1 Bbm1 Ab Eb Fm1 G7

Cm1 Bb Ab Eb Fm1 G7 Cm1 Bb Eb Fm1 Gm1

Bbm₁ Ab Eb Fm₁ Gm₁ Bbm₁ Ab Eb Fm₁ G⁷

21 22 23 24 25

Cm₁ Bb Ab Eb Fm₁ Gm₁ Cm₁ Bb Eb Fm₁ Gm₁

25 26 27 28 29

Bbm₁ Ab Eb Fm₁ G⁷ Bbm₁ Ab Eb Fm₁ G⁷

29 30 31 32 33

Cm₁ Bb Ab Eb Fm₁ Gm₁ Cm₁ Bb Eb Fm₁ Gm₁

33 34 35 36 37

Bbm₁ Ab Eb Fm₁ G⁷ Bbm₁ Ab Eb Fm₁ G⁷

37 38 39 40

NOTE: The bass clef part is intended as a guide to the groove for analytical purposes and is not a literal representation of Maestro or Cohen's accompaniment.

APPENDIX C: CHUTZPAN BASS SOLO

3:55-4:53

TRANSCRIBED BY NICHOLAS ABBEY

♩ = 126

♩ = 126

Cm₁ Eb Fm₁ Gm₁ Cm₁ Eb Fm₁ Gm₁

Cm₁ Eb Fm₁ Gm₁ Cm₁ Eb Fm₁ Gm₁

Cm₁ Eb Fm₁ Gm₁ Cm₁ Eb Fm₁ Gm₁

8^m-----1

Cm₁ Eb Fm₁ Gm₁ Cm₁ Eb Fm₁ Gm₁

Cm₁ Eb Fm₁ Gm₁ Cm₁ Eb Fm₁ Gm₁

11

Cm1 Eb Fm1 Gm1 Cm1 Eb Fm1 Gm1

13

Cm1 Eb Fm1 Gm1 Cm1 Eb Fm1 Gm1

(15)

15

Cm1 Eb Fm1 Gm1 Cm1 Eb Fm1 Gm1

17

Cm1 Eb Fm1 Gm1 Cm1 Eb Fm1 Gm1

19

Cm1 Eb Fm1 Gm1 Cm1 Eb Fm1 Gm1

NOTE: The treble clef part is intended as a guide to the backing for analytical purposes and is not a literal representation of Maestro's accompaniment.

APPENDIX D: SEVEN SEAS PIANO SOLO

3:33-4:41

TRANSCRIBED BY NICHOLAS ABBEY

$\text{♩} = 240$

5

9

13

RUBATO-LIKE

17

Chords: Emi, Cma, Ami, B7

21

IN OCTAVES (WITH 8vb)

25

ROBATO-LIKE

29

33

37

NOTE: The bass clef part and chord symbols are intended as a guide to the backing and harmony for analytical purposes and are not a literal representation of the performance. Modal interchange is one of Maestro's idiosyncrasies, and he occasionally substitutes a Cmi chord for the Cma and usually voices the B7 as B7#9 in this solo. In-depth discussion of harmony is outside the scope of this study, but this is still important to note.

APPENDIX E: SEATTLE BASS SOLO

1:33-2:21

♩ = 180

8VA UNTIL INDICATED

TRANSCRIBED BY NICHOLAS ABBEY

Cm1 F7 Cm1 F7
 RHYTHMICALLY LOOSE

Cm1 F7 Cm1 F7

Cm1 F7 Cm1 F7
 RUBATO-LIKE

Cm1 F7 Cm1 F7

Cm1 F7 Cm1 F7
 RUBATO-LIKE

Cm1 F7 Cm1 F7
 END 8VA

Cm1 F7 Cm1 F7
 RHYTHMICALLY PRECISE >>>

Cm1 F7 Cm1 F7

33

Cm1 F7 Cm1 F7

37

Cm1 F7 Cm1 F7

41

Cm1 F7 Cm1 F7

45

Cm1 F7 Cm1 F7

49

Cm1

APPENDIX F: THE EVER EVOLVING ETUDE TRADED SOLOS

3:16-4:16 ♩ = 120 BASS 1

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Chords: Cm, Fm, G7, Cm, Fm, G7

3
Chords: Cm, Fm, G7, Cm, Fm, G7

PIANO 1

5
Chords: C#m, F#m, G7, C#m, F#m, G7

7
Chords: C#m, F#m, G7, C#m, F#m, G7

BASS 2

9
Chords: Cm, Fm, G7, Cm, Fm, G7 (INAUDIBLE)

11
Chords: Cm, Fm, G7, Cm, Fm, G7

PIANO 2

13

C#mi F#mi G#7 C#mi F#mi G#7

15

C#mi F#mi G#7 C#mi F#mi G#7

BASS 3

17

Cmi Fmi G7 Cmi Fmi G7

8va

19

Cmi Fmi G7 Cmi Fmi G7

(8)

APPENDIX G: STRUCTURE IN EMOTION BASS SOLO

4:32-5:35

TRANSCRIBED BY NICHOLAS ABBEY

♩ = 120

RUBATO-LIKE

Abm1 E Gb Abm1 E Gb

Abm1 E Gb Abm1 E Gb

RUBATO-LIKE
Abm1 E Gb Abm1 E Gb

Abm1 E Gb Abm1 E Gb

RUBATO-LIKE

Abm1 E Gb Abm1 E Gb

Abm1 E RUBATO-LIKE Gb Abm1 E Gb

11

Abm1 E RUBATO-LIKE Gb

13

RUBATO-LIKE Abm1 E Gb Abm1 E Gb

15

Abm1 E Gb Abm1 E Gb

17

RUBATO-LIKE Abm1 E Gb Abm1 E Gb

19

WRITTEN LINE..... IMPROVISED LINE..... SOLO ENDS.....

21

NOTE: This entire improvisation is performed an octave higher than it has been written.

APPENDIX H: SOME EXAMPLES OF DEVICE APPLICATION

These are a few very brief examples of the author's applications of the Avishai Cohen Trio's compositionally-linked rhythmic devices in his recent performance recital. Whilst these outcomes are not specifically linked to the aims of the dissertation, it may be of interest to see how some of the identified devices were adapted for immediate use.

EXAMPLE OF THE USE OF PARALLEL METERS: *HEAD ON* (SAX SOLO)

The image shows two systems of musical notation for a saxophone solo. The top system is in 7/4 time, with a tempo marking of ♩ = 120. The melody is written on a single staff, and the bass line is written on a grand staff. The chords are Cmi, Eb, Fmi, Cmi, Ab, and G7. The bottom system is in 5/16 time, with the same melody and bass line. A double-headed vertical arrow points from the 7/4 system to the 5/16 system, indicating the parallel meter relationship.

The saxophone solo section to the tune *Head On*¹¹⁶ was inspired by the use of parallel meters in Avishai Cohen's music. The groove is in 7/4, but contains the groupings [5 5 5 5 3], which form a parallel meter. The rhythm section generally (although not exclusively) outline the more complex meter, whilst the soloist is free to move between both. This is quite similar to the application in the *Chutzpan* bass solo.

¹¹⁶ *Head On* is a tune for piano trio and tenor saxophone composed by Nicholas Abbey (C. 2010-2011)

EXAMPLE OF THE USE OF PARALLEL METERS: *NO NEED TO BE SHAI* (PIANO SOLO)

♩ = 210

The image displays a musical score for a piano solo. At the top, the tempo is marked as ♩ = 210. The first system consists of two staves in 10/4 time. The upper staff contains a series of slanted lines, while the lower staff contains a bass line with notes and rests. Chords are indicated below the lower staff: Amⁱ, C^{MA}, F^{MA}, C/G, and E⁷. A double-headed vertical arrow points from the middle of the 10/4 system down to the beginning of the second system. The second system is divided into two parts. The first part is in 3/8 time, with the upper staff containing a melodic line of eighth notes and the lower staff containing a bass line. Chords Amⁱ, C^{MA}, and F^{MA} are indicated. The second part of the system is in 5/8 time, with the upper staff containing a melodic line of eighth notes and the lower staff containing a bass line. Chords C/G and E⁷ are indicated.

As in *Head On*, this piano solo section in *No Need to be Shai*¹¹⁷ also makes use of the parallel meter idea. However, this application is more akin to that of *Pinzin Kinzin*, where the accompaniment primarily outlines the simple 10/4 meter and the soloist is able to make use of the more complex meter. Heightened effect is achieved when the group simultaneously adopts the more complex [3 3 3 5 3 3] meter.

¹¹⁷ *No Need to be Shai* is a tune for piano trio composed by Nicholas Abbey (C. May 2011)

EXAMPLE OF DELIBERATELY ALTERING PHRASING – AN ADAPTION OF THE 4/4 OVER

6/4 IDEA: *NO NEED TO BE SHAI* (BASS SOLO)

♩ = 160

The musical notation consists of five staves in 3/4 time. The first staff is a 12-bar vamp divided into six 2-bar sections with the following chord symbols: A_{mi} , C_{MA7} , F_{MA7} , $F^{\#}mi7(\flat 5)$, C_{MA7}/G , and $E7(\sharp 5)/G^{\#}$. The tempo is marked as ♩ = 160. The second staff repeats the same 12-bar vamp. A downward arrow points from the end of the second staff to the first staff of the third system. The third system contains four 4-bar phrases with the following chord symbols: A_{mi} , C_{MA7} , F_{MA7} , and $F^{\#}mi7(\flat 5)$. The fourth system contains four 4-bar phrases with the following chord symbols: C_{MA7}/G , $E7(\sharp 5)/G^{\#}$, A_{mi} , and C_{MA7} . The fifth system contains four 4-bar phrases with the following chord symbols: F_{MA7} , $F^{\#}mi7(\flat 5)$, C_{MA7}/G , and $E7(\sharp 5)/G^{\#}$.

The bass solo section to *No Need to be Shai* is treated with a variation on the 4/4 over 6/4 idea that the Avishai Cohen often uses. Instead of playing the twelve-bar vamp in six-bar sections, as dictated, the soloist deliberately phrases in four-bar sections. This has similar effects in manipulating phrasing as the device used by the trio.

EXAMPLE OF USING LONG/SHORT METERS: *MAELSTRÖM* (PIANO SOLO)

♩ = 220

The image displays two musical staves for the piano solo 'Maelström'. The top staff is in 3/4 time, with a tempo marking of ♩ = 220. It shows a sequence of chords: Em, A/C#, Cma#11, and B7. The bottom staff is in 6/8 time, showing the same sequence of chords: Em, A/C#, Cma#11, and B7. A double-headed vertical arrow between the two staves indicates that the 6/8 version is equivalent to the 3/4 version.

The simpler 3/4 meter on *Maelström*¹¹⁸ is one example of the application of the short meter, as occurred on *Seattle*. Using the short 3/8 meter effectively implies a 6/8 sound.

¹¹⁸ *Maelström* is a tune for piano trio composed by Nicholas Abbey (C. July 2011)

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