
**Analytic, Descriptive, and Prescriptive
Components of Evolving Jazz:
A New Model Based on the Works of
Brad Mehldau**

Mark Edward Baynes

An exegesis submitted in partial fulfilment of the requirements for the degree of

Doctor of Musical Arts

The University of Auckland

2015

Abstract

Jazz has steadily evolved from its inception in the late 19th century to the present. As is the case for other genres, musicological analytic research on jazz evolution has lagged behind its practice; consequently, there is a paucity of in-depth descriptive and analytic research on the music of recent innovators. Among the most recent examples of this evolution, the works of Brad Mehldau as a solo/ensemble pianist and as a composer arguably embody some of the most compelling innovations in the field. Non-academically oriented jazz writers and fans have consistently assigned these works vanguard status, but Mehldau's output has not yet been sufficiently examined to prescribe performance methods. This exegesis contains (1) descriptive analysis of improvisation contained within a broad cross-section of Mehldau's music; (2) definition of a new analytical lexicon derived from a holistic study of consonance, dissonance, and research into perceived motivation in music; and (3) prescriptive musical tools relating to consonance and dissonance that have informed the researcher's performance.

Acknowledgements

I would like to express my special thanks to Dr David Lines, Associate Professor W. Dean Sutcliffe, Dr Davinia Caddy, Kevin Field, Dr Mark Kramer, Gary Burton, Jo Shum, Steve Harvie, Alex Freer, Tom Dennison, Dixon Nacey, Nick Marsh, Jason Orme, Chrissie Hart, Hadyn Godfrey, Chris Mason-Battley, Phil Broadhurst, Kim Paterson, Tom Rainey, Mike Booth and Stephen Morton-Jones. Your encouragement, wisdom and support have been invaluable to me.

Thanks to Brad Mehdau, Larry Grenadier, Jorge Rossy, Matt Chamberlain, Joshua Redman and Jeff Ballard for your truly inspirational music. It has been a real pleasure exploring your improvisations and interactions; through your music I have come to understand more about jazz, music and myself. For that alone, I am truly grateful.

Last but not least I would like to thank my wife Arian, for her constant support and belief in me. The last four years have been a wild ride, and she has always found a way to understand the need for me to lock myself in the study. Cups of tea, sandwiches and emotional support were almost always free flowing; one degree and two children later and we are still smiling!

Table of Contents

Abstract	iii
Acknowledgements	iv
List of Figures	xi
List of Tables.....	xiv
Chapter 1. Introduction	15
1.1. About the Researcher	15
1.2. Exegesis.....	16
1.3. Chapter Outline	16
Chapter 2. Background/Literature.....	19
2.1. Who Is Brad Mehldau?	19
2.2. What Is Mehldau’s Musical Contribution to Jazz Music?	20
2.2.1. Redefinition of Left and Right Hands	20
2.2.2. Expansion of Trio Repertoire.....	20
2.2.3. Rhythmic Phrasing	21
2.2.4. Freedom from Cliché	22
2.3. Why Study Mehldau?.....	22
2.4. Annotated Discography	22
2.4.1. Mehldau, B. (1995). <i>Introducing Brad Mehldau</i> /The Brad Mehldau Trio	22
2.4.2. Mehldau, B. (1997). <i>The Art of the Trio. Volume One</i> /The Brad Mehldau Trio	23
2.4.3. Mehldau, B. (1998). <i>The Art of the Trio. Volume Two</i> /The Brad Mehldau Trio	23
2.4.4. Mehldau, B. (1998). <i>The Art of the Trio. Volume Three</i> /The Brad Mehldau Trio.....	23
2.4.5. Mehldau, B. (1999). <i>Elegiac Cycle</i> /Brad Mehldau Solo Piano	23
2.4.6. Mehldau, B. (1999). <i>The Art of the Trio. Volume Four</i> /The Brad Mehldau Trio.....	24
2.4.7. Mehldau, B. (2000). <i>Places</i> /The Brad Mehldau Trio	24
2.4.8. Mehldau, B. (2001). <i>The Art of the Trio. Volume Five</i> /The Brad Mehldau Trio.....	24
2.4.9. Mehldau, B. (2002). <i>Largo</i> /Brad Mehldau	24
2.4.10. Mehldau, B. (2004). <i>Anything Goes</i> /The Brad Mehldau Trio	24
2.4.11. Mehldau, B. (2004). <i>Live in Tokyo</i> /Brad Mehldau Solo Piano.....	25
2.4.12. Mehldau, B. (2005). <i>Day Is Done</i> /The Brad Mehldau Trio.....	25
2.4.13. Mehldau, B. (2006). <i>House on Hill</i> /The Brad Mehldau Trio.....	25
2.4.14. Mehldau, B. (2008). <i>Brad Mehldau Trio Live</i> /The Brad Mehldau Trio	25
2.4.15. Mehldau, B. (2010). <i>Highway Rider</i> /Brad Mehldau	25
2.4.16. Mehldau, B. (2011). <i>Live in Marciac</i> /Brad Mehldau Solo Piano	26

2.4.17. Album Summary	26
2.5. Analysis of the Music of Brad Mehldau	27
2.6. Model of Consonance and Dissonance	29
2.7. Music and the Psychology of Expectation: Huron.....	30
2.7.1. ITPRA	31
2.7.2. Imagination Response and Tension Response	31
2.7.3. Prediction Response/Effect	31
2.7.4. Reaction Response and Appraisal Response.....	32
2.7.5. Contrastive Valence/Limbic Contrast	32
2.7.6. PRA	33
2.8. Limitations of Exegesis	33
2.9. Research Intentions	35
Chapter 3. Methodology.....	37
3.1. Introduction	37
3.2. Theory	37
3.3. Selection Process.....	37
3.3.1. Initial Selection	37
3.3.2. Primary Listen	39
3.3.3. Secondary Listen	40
3.3.4. Third Listen	42
3.3.5. Initial Observations	42
3.3.6. Initial Conclusions.....	43
3.3.7. Additional Selection.....	44
3.4. Analytical Research.....	44
3.4.1. Transcription of Material	44
3.4.2. Transcription Method.....	46
3.4.3. Live Performances.....	46
3.5. Analytical Research.....	47
3.5.1. Traditional Jazz Analysis	47
3.5.2. Study with Gary Burton	47
3.5.3. Cognitive Analysis	48
3.5.4. New Model of Analysis.....	48
3.6. Analytical Trial	48
3.7. Practice-Directed Component	49
3.7.1. Recital 1: The Evolving Emulation of Mehldau’s Style	50
3.7.2. Recital 2: Compositions of Brad Mehldau	50

3.7.3. Recital 3: My Compositions.....	50
3.7.4. Recital 4: Notes from New York City: Compositions Written in and Inspired by the City That Never Sleeps	50
3.7.5. Recital 5: Final Performance.....	50
Chapter 4. Consonance and Dissonance (C/D).....	51
4.1. Introduction to C/D	51
4.2. Introduction to Vertical C/D	51
4.2.1. Single Notes	51
4.2.2. Dyads.....	53
4.2.3. Triadic and Other Chordal Dissonance	55
4.2.4. Diagonal Harmony	56
4.2.5. Summary of Vertical C/D	58
4.3. Introduction to Horizontal Tonal C/D.....	59
4.3.1. Consonant Melodicism (Marked/Unmarked) with a Romantic Bent.....	59
4.3.2. Dissonant Melodicism.....	61
4.3.3. Motif and Call and Response	62
4.3.4. Chromaticism	64
4.3.5. Linear Tonality.....	65
4.3.6. Perceptual Tonal Dissonance	67
4.3.7. Summary of Horizontal Tonal C/D.....	69
4.4. Introduction to Rhythmic C/D.....	70
4.4.1. Diminishing Dispersal.....	70
4.4.2. Metric Asynchronicity.....	72
4.4.3. Metric Shift	73
4.4.4. Temporal Density.....	75
4.4.5. Expressive Variation	76
4.4.6. Summary of Rhythmic C/D.....	77
4.5. Introduction to Organic C/D	77
4.5.1. Melodic Quotes	78
4.5.2. Phrase Rhythm/Hypermeteric Dissonance.....	80
4.5.3. Harmonic Destabilisation	81
4.5.4. Harmonic Repetition	83
4.5.5. Summary of Organic C/D	84
4.6. Introduction to Cultural C/D	85
4.6.1. Blues.....	87
4.6.2. Quotations	87

4.6.3. Crips	89
4.6.4. Formulaic Improvisation	95
4.6.5. Cultural Dissonance	97
4.6.6. Summary of Cultural C/D	98
4.7. Introduction to Holistic Examples/Contrastive Valence	99
4.7.1. ‘Tres Palabras’ – 2m17s	101
4.7.2. ‘Sky Turning Grey (For Elliott Smith)’ – 2m20s	102
4.7.3. ‘The Nearness Of You’ – 3m07s	103
4.7.4. ‘Madrid’ – 1m32s	103
4.7.5. ‘Someone To Watch Over Me’ – 6m02s	104
4.7.6. ‘Elegy For William Burroughs And Allen Ginsberg’ – 3m	105
4.7.7. Problems concerning Classification of C/D	105
4.7.8. Summary of Holistic Examples/Contrastive Valence	108
4.8. Conclusion	108
Chapter 5. Case Studies	109
5.1. Introduction to the Case Studies	109
5.2. ‘Tres Palabras’	110
5.2.1. Observations	112
5.2.2. Conclusions	115
5.3. ‘Secret Beach’	116
5.3.1. Observations	116
5.3.2. Conclusions	120
5.4. ‘Sky Turning Grey (For Elliott Smith)’	120
5.4.1. Observations	124
5.4.2. Conclusions	125
5.5. ‘Blame It On My Youth’	126
5.5.1. Observations	126
5.5.2. Conclusions	130
5.6. ‘Highway Rider’	131
5.6.1. Observations	131
5.6.2. Conclusions	136
5.7. ‘Anything Goes’	137
5.7.1. Observations	137
5.7.2. Conclusions	142
5.8. ‘Elegy For William Burroughs And Allen Ginsberg’	142
5.8.1. Observations	142

5.8.2. Conclusions	147
5.9. ‘When It Rains’	147
5.9.1. Observations	148
5.9.2. Conclusions	154
5.10. ‘Ode’	155
5.10.1. Observations	155
5.10.2. Conclusions	163
5.11. ‘River Man’	163
5.11.1. Observations	176
5.11.2. Conclusions	182
5.12. Summary of Case Studies	184
Chapter 6. Practice Directions Using the Analytical Framework	193
6.1. Introduction to Practice Component	193
6.2. Vertical C/D	194
6.2.1. Single Notes and Dyads	194
6.2.2. Diagonal C/D	194
6.2.3. Vertical Hyper-Dissonances	195
6.3. Horizontal C/D	195
6.3.1. Consonant and Dissonant Melodicism	196
6.3.2. Motif and Call and Response	196
6.3.3. Chromaticism	197
6.3.4. Linear Tonality	197
6.3.5. Perceptual Tonal Dissonance	198
6.4. Rhythmic C/D	199
6.4.1. Diminishing Dispersal and Expressive Variation	199
6.4.2. Metric Asynchronicity/Metric Shift and Temporal Density	200
6.5. Organic C/D	200
6.5.1. Melodic Quotes	201
6.5.2. Hypermetric Dissonance	201
6.5.3. Harmonic Destabilisation	201
6.6. Cultural C/D	203
6.6.1. Blues	204
6.6.2. Formulaic Improvisation	204
6.7. Music and the Psychology of Expectation	205
6.7.1. Prediction Response/Effect	205
6.7.2. Reaction Response and Appraisal Response	205

6.7.3. Contrastive Valence/Limbic Contrast	205
6.7.4. PRA	207
6.8. Holistic Concept	208
6.8.1. Observations	212
6.8.2. Conclusions	215
6.9. Compositional C/D	215
6.9.1. Vertical Dissonance	216
6.9.2. Conjunct Melodicism/Romanticism	217
6.9.3. Motif	218
6.9.4. Organic C/D	220
6.9.5. Contrastive Valence	221
6.10. Summary of Practice Directions	222
6.11. Summary of Exegesis	223
References	224
Bibliography	224
Discography	228

List of Figures

Figure 1: Track Specifics and Improvisational Notes.....	39
Figure 2: Location of Stylistic Elements.....	42
Figure 3: ‘Anything Goes’ – 5m02s.....	54
Figure 4: ‘Elegy For William Burroughs And Allan Ginsberg’ – 2m05s.....	54
Figure 5: ‘How Long Has This Been Going On’ – 3m29s.....	55
Figure 6: ‘Bealtine’ – 5m57s.....	55
Figure 7: ‘I’ll Be Seeing You’ – 1m42s.....	56
Figure 8: ‘How Long Has This Been Going On’ – 6m05s.....	56
Figure 9: ‘From This Moment On’ – 2m33s.....	57
Figure 10: ‘Lament For Linus’ – 2m49s.....	57
Figure 11: ‘Nobody Else But Me’ – 2m56s.....	58
Figure 12: ‘Sky Turning Grey (For Elliott Smith)’ – 4m09s.....	58
Figure 13: ‘Say Goodbye’ – 3m52s.....	61
Figure 14: ‘Dreamsville’ – 3m53s.....	61
Figure 15: ‘Secret Beach’ – 4m47s.....	62
Figure 16: ‘Knives Out’ – 2m17s.....	63
Figure 17: ‘Secret Beach’ – 5m19s.....	64
Figure 18: ‘When It Rains’ – 3m12s.....	64
Figure 19: ‘Say Goodbye’ – 5m18s.....	65
Figure 20: ‘Exit Music (For A Film)’ – 5m14s.....	66
Figure 21: ‘29 Palms’ – 3m44s.....	67
Figure 22: ‘Ode’ – 4m17s.....	68
Figure 23: ‘Elegy For William Burroughs And Allen Ginsberg’ – 2m58s.....	69
Figure 24: ‘Madrid’ – 1m38s.....	71
Figure 25: ‘The Nearness Of You’ – 3m07s.....	71
Figure 26: ‘Anything Goes’ – 4m22s.....	73
Figure 27: ‘When It Rains’ – 4m50s.....	73
Figure 28: ‘Knives Out’ – 2m59s.....	74
Figure 29: ‘I’ll Be Seeing You’ – 4m59s.....	76
Figure 30: ‘The Nearness Of You’ – 3m07s.....	77
Figure 31: ‘Sky Turning Grey (For Elliott Smith)’ – 1m59s.....	79
Figure 32: ‘Anything Goes’ – 4m22s.....	80
Figure 33: ‘Blame It On My Youth’ – 5m12s.....	81
Figure 34: ‘I Fall In Love Too Easily’ – 3m27s.....	82
Figure 35: ‘Blame It On My Youth’ – 3m48s.....	82
Figure 36: ‘River Man’ – 8m30s.....	83
Figure 37: ‘Kurt Vibe’ – 1m34s.....	87
Figure 38: ‘Unrequited’ – 2m48s.....	90
Figure 39: ‘River Man’ – 1m52s.....	91
Figure 40: ‘Prelude To A Kiss’ – 2m52s.....	91
Figure 41: ‘Boomer’ – 2m56s.....	92
Figure 42: ‘Bewitched, Bothered and Bewildered’ – 3m20s.....	92
Figure 43: ‘Bewitched, Bothered and Bewildered’ – 3m49s.....	93
Figure 44: ‘River Man’ - 3m15s.....	93

Figure 45: ‘Song-Song’ – 4m21s	93
Figure 46: ‘Exit Music (For A Film)’ – 5m24s.....	94
Figure 47: ‘River Man’ – 8m55s.....	94
Figure 48: ‘Dear Prudence’ – 3m13s	94
Figure 49: ‘She’s Leaving Home’ – 7m11s	95
Figure 50: ‘Lithium’ -3m34s.....	96
Figure 51: ‘I’ll Be Seeing You’- 2m36s	96
Figure 52: ‘Ode’ – 2m.....	97
Figure 53: ‘Ode’ – 2m37s	98
Figure 54: ‘Tres Palabras’ – 2m17s (see Table 14 for description of contrastive valence).....	102
Figure 55: ‘Sky Turning Grey (For Elliott Smith)’ – 2m20s (see Table 14 for description of contrastive valence).....	102
Figure 56: ‘The Nearness Of You’ – 3m07s (see Table 14 for description of contrastive valence)...	103
Figure 57: ‘Madrid’ – 1m32s (see Table 14 for description of contrastive valence).....	104
Figure 58: ‘Someone To Watch Over Me’ – 6m02s (see Table 14 for description of contrastive valence)	104
Figure 59: ‘Elegy For William Burroughs And Allen Ginsberg’ – 3m (see Table 14 for description of contrastive valence).....	105
Figure 60: ‘Tres Palabras’ Transcription – page 1	111
Figure 61: ‘Tres Palabras’ Transcription – page 2	112
Figure 62: ‘Secret Beach’ Transcription – page 1.....	117
Figure 63: ‘Secret Beach’ Transcription – page 2.....	118
Figure 64: ‘Secret Beach’ Transcription – page 3.....	119
Figure 65: ‘Sky Turning Grey (For Elliott Smith)’ Transcription – page 1	121
Figure 66: ‘Sky Turning Grey (For Elliott Smith)’ Transcription – page 2.....	122
Figure 67: ‘Sky Turning Grey (For Elliott Smith)’ Transcription – page 3.....	123
Figure 68: ‘Blame It On My Youth’ – page 1	127
Figure 69: ‘Blame It On My Youth’ – page 2.....	128
Figure 70: ‘Blame It On My Youth’ – page 3.....	129
Figure 71: ‘Highway Rider’ Transcription – page 1	132
Figure 72: ‘Highway Rider’ Transcription – page 2	133
Figure 73: ‘Highway Rider’ Transcription – page 3	134
Figure 74: ‘Highway Rider’ Transcription – page 4	135
Figure 75: ‘Anything Goes’ Transcription – page 1	138
Figure 76: ‘Anything Goes’ Transcription – page 2	139
Figure 77: ‘Anything Goes’ Transcription – page 3	140
Figure 78: ‘Anything Goes’ Transcription – page 4	141
Figure 79: ‘Elegy For William Burroughs And Allen Ginsberg’ Transcription – page 1	143
Figure 80: ‘Elegy For William Burroughs And Allen Ginsberg’ Transcription – page 2	144
Figure 81: ‘Elegy For William Burroughs And Allen Ginsberg’ Transcription – page 3	145
Figure 82: ‘Elegy For William Burroughs And Allen Ginsberg’ Transcription – page 4	146
Figure 83: ‘When It Rains’ Transcription – page 1	149
Figure 84: ‘When It Rains’ Transcription – page 2	150
Figure 85: ‘When It Rains’ Transcription – page 3	151
Figure 86: ‘When It Rains’ Transcription – page 4	152
Figure 87: ‘Ode’ – Transcription – page 1	156
Figure 88: ‘Ode’ – Transcription – page 2.....	157
Figure 89: ‘Ode’ – Transcription – page 3.....	158

Figure 90: ‘Ode’ – Transcription – page 4.....	159
Figure 91: ‘Ode’ – Transcription – page 5.....	160
Figure 92: ‘Ode’ – Transcription – page 6.....	161
Figure 93: ‘River Man’ – Transcription – page 1.....	164
Figure 94: ‘River Man’ – Transcription – page 2.....	165
Figure 95: ‘River Man’ – Transcription – page 3.....	166
Figure 96: ‘River Man’ – Transcription – page 4.....	167
Figure 97: ‘River Man’ – Transcription – page 5.....	168
Figure 98: ‘River Man’ – Transcription – page 6.....	169
Figure 99: ‘River Man’ – Transcription – page 7.....	170
Figure 100: ‘River Man’ – Transcription – page 8.....	171
Figure 101: ‘River Man’ – Transcription – page 9.....	172
Figure 102: ‘River Man’ – Transcription – page 10.....	173
Figure 103: ‘River Man’ – Transcription – page 11.....	174
Figure 104: ‘River Man’ – Transcription – page 12.....	175
Figure 105: ‘River Man’ – Transcription – page 13.....	176
Figure 106: Dissonant Single Notes and Dyads.....	194
Figure 107: Diagonal Dissonance.....	195
Figure 108: Vertical Hyper-Dissonance.....	195
Figure 109: Romantic Devices.....	196
Figure 110: Dactylic Motif.....	197
Figure 111: Chromaticism.....	197
Figure 112: Perceptual Tonal Dissonance.....	199
Figure 113: Diminishing Dispersal.....	200
Figure 114: Blues.....	204
Figure 115: Holistic Concept – Melody and Harmonic Vamp for Prepared Solo.....	208
Figure 116: Holistic Concept – page 1.....	209
Figure 117: Holistic Concept – page 2.....	210
Figure 118: Holistic Concept – page 3.....	211
Figure 119: Holistic Concept – page 4.....	212
Figure 120: Vertical Dissonance – ‘Mayaguez’ – bars 33–40.....	216
Figure 121: Vertical Dissonance – ‘Doris’ – bars 13–20.....	216
Figure 122: Conjunct Melodicism/Romanticism – ‘Amelie’ – bars 1–8.....	217
Figure 123: Conjunct Melodicism/Romanticism – ‘21-12’ – bars 1–16.....	218
Figure 124: Motif – ‘San Juan’ – bars 1–16.....	219
Figure 125: Motif – ‘Chances Are’ – bars 9–28.....	219
Figure 126: Organic Consonance and Dissonance – ‘Doris’ – bars 5–21.....	221
Figure 127: Contrastive Valence – ‘La Romana’ – bars 9–29.....	222

List of Tables

Table 1: Album Summary	26
Table 2: Initial Selection	38
Table 3: 42 Selected Tracks	40
Table 4: Initial Observations	43
Table 5: Transcribed Solos.....	44
Table 6: Some Transcribed Excerpts	45
Table 7: Case Studies	48
Table 8: Consonant and Dissonant Notes Found in Common Harmonic Sonorities	52
Table 9: Linear Tonality.....	66
Table 10: Vamps	84
Table 11: Major and Minor Blues Scales.....	87
Table 12: Quotations	88
Table 13: Stabs	90
Table 14: Types of Contrastive Valence	100
Table 15: Problems and Concerning Classification of C/D	106
Table 16: C/D Analytical Acronyms.....	109
Table 17: C/D Relationships Grouped into Structural Hypermeter	113
Table 18: Harmonic Destabilisation of bars 142–145 of ‘River Man’	182
Table 19: Consonance and Dissonance in River Man.....	183
Table 20: Case Studies	185
Table 21: Tritone Reharmonisation.....	187
Table 22: Summary of Salient Improvisational Attributes	188
Table 23: Linear Tonality.....	198
Table 24: Harmonic Destabilisation – Static Chords	202
Table 25: Harmonic Destabilisation – Chord Sequences.....	203
Table 26: Contrastive Valence	206
Table 27: Harmonic Destabilisation of bars 32–33 of Holistic Concept	215

Chapter 1. Introduction

1.1. About the Researcher

Mark Baynes is a contemporary pianist, accompanist and composer, specialising in improvised music including jazz. Mark has almost 20 years of experience as a professional musician, during which he has enjoyed working with musicians including acclaimed saxophonist Eric Marienthal (USA), trumpeter Clay Jenkins (USA), vocalist Tony Christie (UK), New Zealand artists King Kapisi, Tim Beveridge, Anika Moa, Don McGlashan, Batucada Sound Machine, and the Auckland Philharmonia Orchestra.

Mark has worked for 18 months in the Middle East as a musical director, and as a pianist/musical director for ProShip (Canada) for two years. He has released two jazz albums under the pseudonym of Ironic Trio (available on iTunes). As noted above, Mark has collaborated with King Kapisi, contributing to Kapisi's latest album release *Hip Hop Lives Here* (due 2015) and co-wrote 'Sunshine', a soon to be released single/video. One of the tracks on this album ('Crush') won the best video category at the Pacific Music Awards 2014. Mark has also collaborated with Georgia Duder-Wood and Chris Neilson (Katchafire) to produce and perform on a vocal album called *Happenstance* by the Standard Funk Ensemble (of which he is a member). He has also worked with the Kid's Music Company as musical director and recorded three albums, two of which won gold and silver at the Practical Pre-school Awards (UK), 2010–2011.

Mark currently teaches at Massey University in the New Zealand School of Music. Mark was awarded the Ariadne Danilow Music Prize (Victoria University) and the Sir Alan Stewart Postgraduate Scholarship (Massey University) in 2008, and the University of Auckland Partnership Appeal Award in 2014, enabling him to pursue postgraduate qualifications. Mark has studied under Gary Burton (USA) at the prestigious Berklee College of Music; he has also studied under Andy Laverne (University of Hartford, NY) and Hal Galper (The New School, NYC). He contributed to *Downbeat* magazine in 2011 with an article on the music of Brad Mehldau.

1.2. Exegesis

This exegesis contains a detailed analysis of improvisation contained within the music of jazz pianist Brad Mehldau by way of case studies comprising 10 solos and many extracts. It defines and exemplifies a new approach to jazz analysis derived from holistic study of consonance and dissonance (Parncutt & Hair, 2011), and research into perceived motivation in music by cognitivists such as Huron (2006) and Meyer (1956).

There is a dearth of detailed analysis on the music of Mehldau, so the exegesis serves as a unique contribution to a narrow subject, but also as an entrée to understanding the evolution of jazz. It clearly demonstrates the musical tools that help Mehldau manipulate consonance and dissonance in his music. The method of analysis found in this document is new to the field of jazz; it is hoped that this original analytical model will spur further research into process and perceived motivation for improvised music and/or composition. The exegesis forms part of a Doctor of Music Arts degree; the information gleaned from the study on Mehldau has informed a practice-directed research programme resulting in five recitals.

1.3. Chapter Outline

This document is divided into six chapters: Introduction, Background/Literature, Methodology, Consonance and Dissonance, Case Studies, and Practice Directed Component; the bulk of this study is contained within Chapters 4, 5 and 6.

Chapter 1 serves as an introduction to the exegesis.

Chapter 2 discusses Mehldau's contribution to jazz, the need for this study, a brief discography, a review of relevant literature, the limitations of the exegesis, and research intentions.

Chapter 3 describes the research method, the selection process of representative works, transcription method, analytical method, and practice-directed research.

Chapter 4 subdivides consonance and dissonance (hereafter often abbreviated to C/D) into five categories: vertical, horizontal, rhythmic, organic, and cultural. These categories provide the foundation of an analytical model used to examine perceived motivation in Mehldau's performances, creating improvisation that satisfies expectations as theorised by Meyer (1956) and Huron (2006).

Chapter 1 - Introduction

Chapter 5 explores 10 piano solos as played by Brad Mehldau. Each case study consists of an annotated transcription, and written observations/conclusions using an analytical model defined in Chapter 4.

Chapter 6 is descriptive; it outlines my performance concept derived from the exegesis.

Chapter 2. Background/Literature

2.1. Who Is Brad Mehldau?

Bradford Alexander Mehldau (born August 23, 1970) is an American jazz pianist and composer. Though Mehldau's early training was primarily classical, his interest in jazz began early on; he played in his high school jazz band and won the Berklee College 'Best All-Around Musician Award' in his first year.

Mehldau started jazz study in 1998 at New York's New School for Social Research under Fred Hersch, Junior Mance, Kenny Werner, and Jimmy Cobb. Cobb soon hired him to play in his band, Cobb's Mob. Mehldau joined Joshua Redman's quartet during the mid-nineties recording albums such as *Timeless Tales for Changing Times* (Joshua Redman, 1998) and *Captured Live* (Joshua Redman, 1994); the musical bond formed between Mehldau and Redman is still strong today.

Mehldau formed a piano trio in 1994, recording his first album, *Introducing Brad Mehldau* (Warner Bros.) in 1995. Mehldau has recorded a total of 13 albums (nine studio albums and four live albums) as the Brad Mehldau Trio, currently consisting of Larry Grenadier (acoustic bass) and Jeff Ballard (drums). Ballard replaced original stalwart drummer Jorge Rossy in 2005. Mehldau has recorded three solo piano albums and two ensemble albums, utilising different combos including woodwind, pump organ, sax, electronica, orchestra and choral ensemble.

Mehldau has collaborated with acclaimed producers such as Jon Brion and Matt Pierson but has also produced many of his own albums. Mehldau has produced albums for other artists such as *Walking Shadows* (Joshua Redman, 2013).

Mehldau has performed as a sideman (and/or collaborator) with internationally renowned artists such as Mark Guiliana, Pat Metheny, Wayne Shorter, Joshua Redman, Lee Konitz, Kevin Hays, Christian McBride, Michael Brecker, John Scofield, Peter Bernstein, Chris Potter, Kurt Rosenwinkel, Brain Blade, classical vocalists Renée Fleming and Anne Sofie von Otter, and singer-songwriters Elliott Smith, John Mayer and Chris Thile.

2.2. What Is Mehldau’s Musical Contribution to Jazz Music?

The acclaimed jazz author Ted Gioia (2007, n.p.) provides four reasons why Mehldau has had such a significant impact as a pianist: (1) his redefinition of left and right hands, (2) his expansion of trio repertoire, (3) his rhythmic phrasing, and (4) his freedom from cliché. Using Gioia’s observations as a springboard for further discussion, I explore Mehldau’s contribution to jazz music in more detail below.

2.2.1. Redefinition of Left and Right Hands

Although occasionally evident in jazz piano prior to Mehldau (e.g. Art Tatum/Lennie Tristano), devices such as counterpoint and multiple layers were rarely employed by jazz pianists. Framed within the milieu of modern post-bop Jazz piano, Mehldau has explored the creative boundaries of contrapuntal and multilayered improvisation.

Mehldau reflects: ‘Playing different lines in each hand is something I’ve done for a long time... I love Brahms’ piano music where there’s all this melodic activity in the bass. And Art Tatum is huge for me, because he does things with his thumbs and little fingers to generate more melody... Having each hand play independently stems from the desire to hear more melody in the lower register. It’s more expressive in some ways to hear the tune down there. It’s more touching because you don’t expect it’ (quoted in Himes, 2011, p. 45). Mehldau often improvises using two concurrent melodic lines, or uses an ostinato comping style, and sometimes places improvisational lines in unexpected areas of the piano.

2.2.2. Expansion of Trio Repertoire

Mehldau’s aspirations towards originality in jazz have led him to draw inspiration from a diverse selection of sources, and he has gained acclaim for fusing styles in his performances. Confirmation of his stylistic influences is not a difficult task. Even if there is doubt after active listening to Mehldau’s oeuvre, his classical stylistic bent is well documented by critics, scholars, and Mehldau himself: ‘I draw on a lot of classical music, pop and rock music, music from Brazil, and other stuff. I listen to it for pleasure and enjoyment, and then a lot of it filters out in my playing. With classical music, there’s a written canon there – you can study those scores. There’s a good three centuries of stuff to check out – it’s endless. Ultimately I think of myself as an improvising jazz musician at the end of the day, and one of my talents I guess

is assimilating all of that written stuff and making it part of what I do’ (quoted in Vella, 2011, n.p.).

Mehldau regularly plays music by pop artists such as Lennon/McCartney, Radiohead, Nick Drake, Jimi Hendrix, Kurt Cobain, and Paul Simon, interpreting their music to suit his own needs. It is perhaps the regularity with which Mehldau fuses post-1960 pop tunes into his music that is his contribution to expansion of the trio repertoire to which Gioia refers.

Mehldau has stated, ‘Playing pop tunes just seemed a no-brainer to me... I never thought of it as particularly weird; I had Blue Note records where Lee Morgan played Beatles tunes. It had something to do with me living in L.A. from 1996 to 2001, because that’s when I started recording with the trio and started playing those songs by Radiohead and Nick Drake’ (quoted in Himes, p. 47).

2.2.3. Rhythmic Phrasing

Comprehension of rhythmical devices is assisted by dividing rhythm into two categories: (1) micro rhythm concerned with tactus placement and meter, and (2) macro rhythm, describing expressive variation in relation to the tactus.

2.2.3.1. Micro Rhythm

For Gioia (2007), ‘Mehldau’s trio has set up its own rules... working its rhythmic reconfigurations at a very high level of virtuosity. It is especially exhilarating to hear them floating over the ground rhythm in odd time meters, all the while maintaining a high level of interactivity and variety in their playing’. Mehldau regularly uses tactus-affirming or tactus-challenging rhythmic devices that are either consonant or dissonant to the underlying structure (see Chapter 4 for definitions and examples).

2.2.3.2. Macro Rhythm

In ‘A Fireside Chat with Brad Mehldau’ (AAJ Staff, 2004, n.p.), Mehldau (2004) reflects, ‘I get a lot from vocalists that I love – Billie Holiday, Dinah Washington, Frank Sinatra – the way they phrase the melody. Often the mere attempt to make the piano phrase like a human voice can point you in an expressive direction: the impossibility of achieving vocal effects on the piano – a long sustain, vibrato, and the like – is a given, but if you have that as an ideal, you can communicate a certain longing in your phrasing’. Mehldau has a masterful control of time, which he uses to manipulate consonance and dissonance on a macro level.

2.2.4. Freedom from Cliché

Brad Mehldau is considered by many to be one of the most significant figures in modern jazz piano. Pat Metheny described him as ‘the ultimate manifestation of a kind of player who performs in such a unique way that if he didn’t play like that then he would die’ (Metheny, quoted in Andersen, 2003). Mehldau’s refusal to adhere to certain stylistic norms found within the jazz tradition has led him in an original direction. His style is a direct reflection and culmination of a diverse selection of autodidactically absorbed music; his influences are broader than jazz and consequently his originality incontrovertible. Mehldau is an intelligent improviser, crafting solos using tools such as melodic cells, motif, romanticism, blues, and jazz formula. Mehldau employs such a wide musical palette that special consideration is needed to analytically understand it. Analysis of his manipulation of consonance and dissonance, as performed by this exegesis, has proven effective in providing an understanding of Mehldau’s music.

2.3. Why Study Mehldau?

Primary motivations for this in-depth study into the music of Brad Mehldau are:

1. Mehldau’s music represents an original voice in improvised music; an in-depth case study of his work is crucial for gaining an understanding of one primary direction that the culture of improvised music is moving in.
2. On a personal note, Brad Mehldau has been the primary source of inspiration for my own pianistic studies and jazz development for over 10 years; I have a huge amount of respect for him and regularly enjoy a connection to his music. I believe that Mehldau continually sustains the highest level of integrity as a musician; whether he is playing improvised or through-composed music in any ensemble setting that he chooses, he always seems to remain acutely focused on excellence at all times.

2.4. Annotated Discography

2.4.1. Mehldau, B. (1995). *Introducing Brad Mehldau/The Brad Mehldau Trio.*

Introducing Brad Mehldau is Mehldau’s debut album and contains a mixture of standards and compositions. The album demonstrates Mehldau’s virtuosic piano skills and includes many clichés common to the jazz tradition. This album uses two different sets of players, the first half using

Mehldau's original stalwart rhythm section of Larry Grenadier (bass) and Jorge Rossy (drums) and the second using Brian Blade (drums) and Christian McBride (bass).

2.4.2. Mehldau, B. (1997). *The Art of the Trio. Volume One*/The Brad Mehldau Trio.

The Art of the Trio [hereafter referred to as *AOT*] *Volume One* is Mehldau's second studio album and first release of the *AOT* series. This album also contains an even mix between standards and original material, and an arrangement of Lennon and McCartney's pop classic 'Blackbird'. This album shows the development of a musical kinship between members of the trio; Mehldau also demonstrates the beginnings of his approach to motif exploration and development. As in *Introducing Brad Mehldau*, Mehldau still plays many clichés.

2.4.3. Mehldau, B. (1998). *The Art of the Trio. Volume Two*/The Brad Mehldau Trio.

AOT2 is a live album of standards recorded at the Village Vanguard. It solidifies Mehldau's full commitment to motivic development. Mehldau's idiosyncrasies are prevalent, and there are fewer clichés. Mehldau experiments with a more adventurous left hand.

2.4.4. Mehldau, B. (1998). *The Art of the Trio. Volume Three*/The Brad Mehldau Trio.

AOT3 is a studio album consisting of five original compositions, three standards, and two pop interpretations. 'Unrequited' and 'Sehnsucht' are important 'classical-sounding' works as both employ a form of harmonic framework focused on voice leading and cyclical harmonic movement. *AOT3* contains the first adaptation of 'River Man' (Nick Drake), and 'Exit Music (For A Film)' (Radiohead), both of which are considered to be seminal works.

2.4.5. Mehldau, B. (1999). *Elegiac Cycle*/Brad Mehldau Solo Piano.

Elegiac Cycle is Mehldau's first solo piano album, comprised entirely of his own compositions. It is a concept album with a morose theme. *Elegiac Cycle* contains textural variety, multi-part playing, and is a good example of third-stream music, fusing elements found in both classical and jazz. An example of this is 'Trailer Park Ghost', where Mehldau changes texture many times, often throwing in boogie and blues ideas among counterpoint.

2.4.6. Mehldau, B. (1999). *The Art of the Trio. Volume Four*/The Brad Mehldau Trio.

AOT4 was recorded live at the Village Vanguard and is arguably the first live album to successfully capture the full power of the Mehldau trio in a live setting. ‘Exit Music (For A Film)’ here is the quintessential example of motivic development; the solo from 2m30s–4m30s is based on just one idea. It also serves as an excellent example of Mehldau’s ability to ‘build then sustain’ the intensity of his solo.

2.4.7. Mehldau, B. (2000). *Places*/The Brad Mehldau Trio.

Places is a unique studio album in that half of the album is solo piano and half is trio. *Places* consists of compositions that were inspired by, written on, and titled by, locations. ‘29 Palms’ is an example of how Mehldau develops his improvisation over static chord changes.

2.4.8. Mehldau, B. (2001). *The Art of the Trio. Volume Five*/The Brad Mehldau Trio.

AOT5 is the last in series and sees the trio demonstrating intuitive musical interplay that modulates between meters with absolute ease and musical coherence. It is a double album, mainly consisting of standards, with four compositions and another (far superior) version of Nick Drake’s ‘River Man’. ‘River Man’ is the quintessential example of the build-then-sustain improvisational approach.

2.4.9. Mehldau, B. (2002). *Largo*/Brad Mehldau.

In this experiment in jazz electronica, rock producer Jon Brion helps Mehldau move away from a traditional acoustic setting, employing devices such as prepared piano, timbral variety, unorthodox microphone placement, and rhythm section doubling. The improvisation heard on *Largo* is often single-line, arguably due to the harmonic space that the other parts occupy.

2.4.10. Mehldau, B. (2004). *Anything Goes*/The Brad Mehldau Trio.

Anything Goes was recorded in 2002 during the same session as *House on Hill* (Mehldau, 2006, p. 5). These two albums are Mehldau’s last recordings with drummer Jorge Rossy. Improvisational content for the whole album is understated, but ‘Anything Goes’ and ‘Tres Palabras’ are excellent examples.

2.4.11. Mehldau, B. (2004). *Live in Tokyo*/Brad Mehldau Solo Piano.

A mixture of pop works and standards, *Live in Tokyo* is Mehldau's first live solo album. Mehldau uses stride ('How Long Has This Been Going On' [Gershwin, 1928]), multi-part playing ('Things Behind The Sun' [Drake, 1972] and 'Intro' [Mehldau, 2004]), voicings found in classical music ('Someone to Watch Over Me' [Gershwin, 1926]), and creates themes derived from constant repetition/development ('Paranoid Android' [Yorke/O'Brien/Greenwood/Greenwood/Selway, 1997]).

2.4.12. Mehldau, B. (2005). *Day Is Done*/The Brad Mehldau Trio.

Drummer Jeff Ballard joins bassist Larry Grenadier to form the rhythm section of the 'new' Brad Mehldau Trio. *Day Is Done* includes arrangements of pop tunes by composers such as Lennon and McCartney, Nick Drake, Radiohead and Paul Simon.

2.4.13. Mehldau, B. (2006). *House on Hill*/The Brad Mehldau Trio.

Comprising solely original material, *House on Hill* shares the unhurried flavour of *Anything Goes* (not surprisingly as it was mainly recorded during the same session in 2002). 'August Ending' and 'Fear and Trembling' were recorded three years later. *House on Hill* is a mature album, the improvisation arguably the most well-conceived and developed of all his albums to date. It contains plenty of motivic exploration, 'interesting' lines, and contrapuntal accompaniment.

2.4.14. Mehldau, B. (2008). *Brad Mehldau Trio Live*/The Brad Mehldau Trio.

This is Mehldau's most recent live trio album release, recorded at the Village Vanguard in 2006; it contains seminal performances of 'Wonderwall' (Oasis, 1995), 'Black Hole Sun' (Soundgarden, 1994), and 'Secret Beach' (Mehldau, 2007).

2.4.15. Mehldau, B. (2010). *Highway Rider*/Brad Mehldau.

Highway Rider is Mehldau's second collaboration with producer Jon Brion and shares timbral similarities with *Largo*, but with orchestral ensembles replacing electronica. Saxophonist Joshua Redman features throughout the album. Many tracks are through-composed. As is often the case with Mehldau's groove-based solos, instruments other than the piano play a harmonic role, negating the prominence of Mehldau's otherwise active left hand.

2.4.16. Mehldau, B. (2011). *Live in Marciac/Brad Mehldau Solo Piano*.

Live in Marciac is Mehldau's most recent solo piano release, which won critical acclaim in *Downbeat* and *Jazztimes*. Mehldau describes the album as 'the beginning of a freer approach, I would say, and maybe more ease and fluidity in a musical texture with several simultaneous voices. It is the most related to where I am now as a solo player' (quoted in Vella, 2011, n.p.).

2.4.17. Album Summary

Table 1 shows a summary of Mehldau's annotated discography.

Table 1: Album Summary

Album Name	Comments
<i>Introducing Brad Mehldau</i>	Displays Mehldau's virtuosic piano ability with many clichés.
<i>AOT1</i>	Introduces his first pop interpretation and hints at a motivically driven improvisational concept; still contains many clichés.
<i>AOT2</i>	First live album; solidifies Mehldau's commitment to motivic development; contains a more prevalent left hand and multi-part solo piano concept.
<i>AOT3</i>	Complex cyclical compositions with fusion of classical and pop styles.
<i>Elegiac Cycle</i>	First solo piano album; first album containing only compositions; first concept album; fuses elements of jazz and classical traditions.
<i>AOT4</i>	Bigger solos reaching sustained levels of intensity.
<i>Places</i>	First composition-only album featuring the trio; second concept album; only album with even solo piano/trio split.
<i>AOT5</i>	High degree of stylistic maturity and

	depth; intuitive musical interplay; musical connectivity; like <i>AOT4</i> in terms of build-then-sustain improvisation.
<i>Largo</i>	First album containing electronica and larger ensembles; motivic presence and strong linear content.
<i>Anything Goes</i>	Understated improvisational content; solid examples of thematic improvisation.
<i>Live in Tokyo</i>	First live solo album
<i>Day Is Done</i>	Jeff Ballard joins trio; sound arguably more groove-based.
<i>House on Hill</i>	Unhurried and reflective flavour, improvisation very well conceived and developed; a cerebral album with strong classical links.
<i>Live</i>	Latest live trio album.
<i>Highway Rider</i>	Strong links to <i>Largo</i> but with a less electronic and more orchestral feel; often through-composed, similar single-line solos, elements of solos also linked to <i>Largo</i> .
<i>Live in Marciac</i>	Latest live solo album, more simultaneous voices, greater ease and fluidity.

2.5. Analysis of the Music of Brad Mehldau

In *Issues in the Analysis of Improvisation: A Structuralist Approach to the Work of Brad Mehldau* (2005), Wood reminds us that normative methods of jazz analysis are inadequate in their ability to provide information regarding motif, rhythm, and thematic development. Wood cites Mark Levine's popular book *The Jazz Theory Book* (Levine, 1995) as a representation of educational material containing analytical biases towards harmony and

chord-scale relationships. Wood highlights devices such as motif, melodic fragments, repetition, range and rhythm in Mehldau's improvisations via transcription. His research outlines the need for analysis that incorporates the entire gamut of improvisational devices that Mehldau has in his employ.

In *Motivic Strategies in Improvisations by Keith Jarrett and Brad Mehldau*, Page (2009) examines Ekkehard Jost's concept of Motivic Chain Association (MCA), a broad concept that encompasses audible motivic relatedness between elements of a melodic line. Page explores different types of MCA (e.g. pitch, rhythm, contour) and explains that Mehldau's use of motivic development is used as a musical 'glue', joining passages of improvisation together.

More recently, *Reconstructing Tonal Principles in the Music of Brad Mehldau* (Arthurs, 2011) examines several performances from *AOT3*, using Schenkerian analytical methods. Arthurs argues that some of Mehldau's music requires classical analysis, which distinguishes his music from mainstream jazz.

Wood, Page and Arthurs all recognise the need to analyse Mehldau's music using tools borrowed from other disciplines. However, Mehldau also adheres to some harmonic and melodic concepts that are commonplace in mainstream jazz. In *Brad Mehldau's Piano Solo on "Sky Turning Grey"* (Baynes, 2012, p. 80), I explored Mehldau's use of devices including sideslipping, chromaticism, blues, and polyrhythm. To avoid throwing out the analytical baby with the bathwater, a multidisciplinary analytical approach is clearly paramount for a thorough understanding of Mehldau's music.

Due to a lack of an existing multidisciplinary analytical framework merging analytical tools found within both jazz and classical traditions, I have devised a new model. This model incorporates elements of consonance and dissonance as defined in *Consonance and Dissonance in Music Theory and Psychology: Disentangling Dissonant Dichotomies* (Parncutt & Hair, 2011). It also draws from discourse on rhythmic C/D in *Expressive Asynchrony and Meter: A Study of Dispersal, Downbeat Space, and Metric Drift* (Yorgason, 2009), and *Metric Dissonance and Hypermeter in the Chamber Music of Gabriel Fauré* (Vonfoerster, 2012). This model of C/D is presented in Chapter 2.6.

2.6. Model of Consonance and Dissonance

‘There is surely nothing in the language of discourse about music that is more burdened with purely semantic problems than are the terms *consonance* and *dissonance*’ (Tenny, 1988, p. 1). From a historical standpoint, three scholarly disciplines have been responsible for most of the theories of C/D to date (musicology, science and psychology), and treatments of C/D can be traced back to the Pythagorean era. Musicologists, scientists and psychologists have described C/D using terminology suitable to their field, and consequently it is often difficult to ascertain standard definitions. The main theories can be broadly separated into two camps: natural and cultural. Natural theories on C/D include acoustic and psychophysical sonorities based on Pythagorean law, the harmonic series, and localised vertical sonorities between two or more pitches. Natural dissonances are also described as sensory dissonances in *Sweet Anticipation: Music and the Psychology of Expectation* (Huron, 2006, p. 311). Cultural theories of C/D are based on learnt cultural experiences and cognitive processes including temporal relationships on a horizontal level (Parncutt & Hair, 2011, p. 119). Cultural dissonances are defined by Huron (2006) as tension dissonances, and relate to perception of tension and resolution from study of recordings and scores from a horizontal or temporal perspective. For the purposes of this exegesis and in accordance with definitions by Parncutt and Hair (see Chapters 4.2 and 4.3), cultural and tension dissonances will be described as horizontal, and sensory and natural dissonances will be described as vertical.

With the plethora of terms associated with C/D (such as tension and relaxation, stable and unstable, nature and culture, sensory and cultural, bottom-up and top-down, implied and realised, rough and smooth), it is easy to understand the semantic problems that Tenny (1988) refers to above. In a traditional sense dissonance is related to an individual sonority containing two or more pitches; however, this exegesis explores the possibility that the terms consonance and dissonance can be used to describe a bigger picture, a larger perspective including everything from small units, to phrases, entire pieces, and even styles relating to the musical tendencies of an individual performer or group of performers. It seems to be tacitly understood by many that the underlying principle of tonal music is derived from harmonic motion, in particular the tonic-dominant-tonic relationship. By considering tonic to be consonance and dominant to be dissonance it is possible to view most tonal music as following a consonance-dissonance-consonance, or relaxed-tense-relaxed schematic norm; this is the foundational premise on which this exegesis builds its analytical model.

So if C/D relationships are commonly associated with harmonic (and via inference melodic) events as suggested by most Western music theorists (e.g. Kamien, 2011), then logic dictates that investigation of other fundamental aspects of music such as rhythm, form and style is also necessary. Consequently, this exegesis investigates rhythmical C/D as demonstrated by Vonfoerster (2012) and Yorgason (2009). Parncutt and Hair (2011) remind us that other, perhaps more figurative definitions of C/D require further study. This exegesis not only considers aspects of C/D pertaining to harmony, melody and rhythm, but also includes other C/D events that occur on a spatiotemporal plane such as form and culture.

For this reason I have divided discussion on C/D into (1) individual sonorities (sensory or natural C/D), (2) harmony, (3) melody, (4) rhythm, (5) form, and (6) culture.

In accordance with my proposed analytical model, a holistic C/D framework has been adapted from Parncutt and Hair (2011), which broadly alludes to a vertical/horizontal/rhythmic/organic/cultural model, allowing for discussion of complex C/D relationships. A detailed description of all elements of C/D discussed in this exegesis can be found in Chapter 4.

In addition, my enquiry into Brad Mehldau's music has led me to ask questions including: Why does Mehldau use motif and melody? What is the purpose of musical climax? Finding answers for why events happen in the order they happen in Mehldau's music has helped me to devise heuristic improvisational tools. In the process I have drawn on insights from the relatively new field of cognition, in particular the work of Huron (2006).

2.7. Music and the Psychology of Expectation: Huron

Understanding Mehldau's manipulation of C/D has required (1) an understanding of cognitive processes derived from enculturation to Western tonal musical principles, (2) biological impulses inherent to human nature, and (3) how these relate to musical perception on both small and large scales. Huron (2006) divides cognitive processes relevant to this study into prediction response/effect, reaction response, appraisal response, and contrastive valence/limbic contrast. Huron's theory governing expectation is called ITPRA; a summary of ITPRA and relevant aspects pertaining to this thesis are explained below in turn.

2.7.1. ITPRA

ITPRA is a theory of expectation developed in David Huron's 2006 book *Sweet Anticipation, Music and the Psychology of Expectation*. ITPRA is grouped into *pre-outcome* and *post-outcome* phases based on psychological responses to expectation arguably governed by complex biological systems. ITPRA is an acronym for *Imagination, Tension, Prediction, Reaction* and *Appraisal*, where IT (*imagination and tension*) are pre-epoche events and PRA (*prediction, reaction, and appraisal*) are post-epoche. ITPRA theory can be used to describe many events but is particularly suited to the performing arts where expectation helps to shape emotional experiences (p. 356).

2.7.2. Imagination Response and Tension Response

Imagination response is the first emotional state that occurs pre-epoche, followed by *tension response*. Huron argues that the *imagination response* stage aids motivation for an event, and the *tension response* stage builds arousal and helps preparedness for an event. In this exegesis my primary concern is for post-epoche events (PRA) that help govern the effect that music has on a listener; arguably, anyone actively listening to music would normally have already experienced the pre-epoche part of ITPRA.

2.7.3. Prediction Response/Effect

Huron (2006) argues that by creating highly predictable music a performer can evoke a positive emotional state or valence. Repetition of an event results in high predictability; this predictability is rewarded by our biological system and we feel a positive valence. Interestingly, Huron incorporates the psychological tendency of misattribution to the prediction response creating the prediction effect, stating that the limbic reward from successful predictability is misattributed to the music itself; in other words, Huron argues that recognition of repetition in music makes us feel like the event itself is providing positive or negative valence (p. 141). It is not difficult to understand this principle as arguably it is used as a basis for creating popular music; repeat a pop song enough times on the radio and people will start to like it! Predictive qualities of improvisational music are therefore of paramount importance in aiding emotional responses in music.

2.7.4. Reaction Response and Appraisal Response

Huron (2006) writes that ‘when a stimulus appears, a “quick and dirty” response is evoked. This *reaction response* is defensive in function. At the same time, a slower process of cognitive evaluation is initiated that takes into account complex social and situational factors. This *appraisal response* is able to inhibit or facilitate the initial reaction response, or evoke a wholly different response... The distinction between fast and slow response reflects the neurological embodiment of two usually contradictory goals: (1) the needs to respond as *quickly* as possible to dangerous circumstances, and (2) the need to judge as *accurately* as possible the value of some event or situation’ (p. 358). Knowledge of the reaction response can be seen as the primary motivator in creating musical surprise, a musical event that violates expectation on an organic or cultural level. In addition, Huron reminds us that ‘for a fast reaction response to remain effective in dealing with danger, it must be protected from habituation or unlearning. Reaction responses must be evoked reliably, even when there is an overwhelming history of false alarms’ (p. 359).

Even after repeated listening, a work can still provoke surprise in the listener. Huron (2006) reminds us that on a biological level, surprise in itself is never initially a good thing: ‘the rapid response to surprise assumes the worst... our physiological reflexes reveal that biology is deeply suspicious and pessimistic: bodies don’t like surprises’ (p. 21). In contrast, the appraisal response is slower and is aimed at gauging accurate assessments of the event. In music, surprise can be a way to evoke arousal and attention towards a particular musical event (from a hard-wired biological reflex). Huron states that surprise acts as an emotional amplifier (p. 39), as the initial reaction response providing musical focus from which the appraisal response can derive valence.

2.7.5. Contrastive Valence/Limbic Contrast

‘I have noted that there are different expressions of surprise and that these expressions echo the primordial behaviours of *fight, flight* and *freeze*. Musical surprises are capable of initiating these responses, but the responses themselves are short-lived because an ensuing appraisal ultimately judges the stimuli as nonthreatening... Instead, the listener is left with a corresponding response of frisson, laughter, or awe... the pleasure associated with these responses arises from limbic contrast – a phenomenon I’ve called *contrastive valence*. Pleasure is increased when a positive response follows a negative response. While surprise is

biologically bad, surprise nevertheless plays a pivotal role in human emotional experience’ (Huron, 2006, p. 39).

For the purposes of this exegesis the most important aspect of Huron’s term ‘contrastive valence’ is the element of surprise, which acts as an emotional amplifier. Chapters 4 and 5 will demonstrate contrastive valence on both small and large scales. Holistically, contrastive valence is everywhere. A listener encultured to Western tonal music learns that a *home-away-home* paradigm exists: a tonality is heard (tonic/home); then an event happens that creates a desire to return to that feeling (dominant/away); and a sense of release is experienced when that sonority moves back to the tonic (home).

2.7.6. PRA

Huron (2006) states that ‘not all repetitions lead to the prediction effect, and not all violations of expectation lead to contrastive valence. Repetition can lead to (unconscious) habituation and to (conscious) boredom. Violations of expectation can lead to irritation and annoyance’ (p. 365). Huron’s enquiry into music and cognition serves to inform creative practice. As with any musical tool, overuse can lead to saturation.

These caveats notwithstanding and all things being equal, one can conclude that music that evokes a positive limbic affect either through prediction response and/or contrastive valence is generally a good thing. Huron’s theory of PRA (the post-event epoch of ITPRA theory), states that complex levels of valence (often contrastive) make up most musical experiences; so combining elements that create valence through predictability AND contrastive valence through reaction and appraisal is generally considered a good thing.

2.8. Limitations of Exegesis

Perhaps the biggest limitation of a study that attempts to define any elements found in music is that of semantics. In *Jazz in the Present Tense* (DVD), Jazz guitarist Bill Frisell reminds us, ‘I just don’t like it when the name of something has the effect of excluding something, if you say it’s one thing then it can’t be something else, that doesn’t work for me, because I mean the words are always smaller than whatever it is you are trying to describe, and for me jazz is like infinite’ (quoted in Comerford, Rivoira, Larsdon, & Vogt, 2010). Problems arise when attempting to define such a diverse genre as jazz, or (in the case of this exegesis) an artist’s style within the subculture of improvised music in general, due to the reductive nature

of the process involved. Jazz trumpeter Nicolas Payton argues, ‘I think the problem is once jazz became a thing, it seemed to take on a persona that became less and less of what it actually was. Everything has the same nature, everything has the same core essence, tap in to that, and the world becomes a different place’ (quoted in Comerford et al., 2010).

Nevertheless, there is a need for scholarly analysis of musical performance, especially when used in conjunction with practical, rote-based methods of musical research. Perhaps a fundamental limitation of this exegesis is that it has been designed to be self-serving to the author in terms of direction, content and duration; this exegesis is a study primarily aimed at assisting the researcher to explore his own pianistic artistry. But this is not to say that the content won’t be valuable to other researchers.

Having noted that the epistemological and ontological assumptions of the researcher contain a strong performance bias, it is necessary to state the secondary limitations of this study, which include:

1. Transcriptions of Mehldau’s playing are primarily (but not totally) concerned with Mehldau’s improvisational lines; harmonic exploration, although addressed to some degree (occasionally in detail), is not the primary focus of this work.
2. The method of analysis formalised by the researcher is also self-serving, as analysis in general is not an absolute phenomena; in other words, different methods of analysis exist to explore different aspects of music, and the method defined in Chapter 4 has been designed to explore the complex array of C/D found in the music of Mehldau. Even though this document is thorough, it cannot be concluded that any analysis contained within the case studies is complete. Even if it was possible to completely and wholly analyse a work, the analysis serves and informs the performance and not vice versa. Information gleaned from analysis and study of cognitive processes should not be misconstrued as the only source for creative goals exemplified in the five recitals required by the Doctor of Musical Arts.
3. The primary focus of this work is on the piano performances of Brad Mehldau. Mehldau often plays in a trio setting so it is tacitly assumed that, due to the nature of any collective improvisational environment, interactions in real time between Mehldau, Larry Grenadier (bass) and Jeff Ballard (drums) are a continual

phenomenon. This exegesis is not primarily concerned with interaction between piano and bass/drums; it is interested in the content of Mehdau's piano playing.

2.9. Research Intentions

The primary research intention is to explore, as objectively as possible, aspects regarding the music of Brad Mehldau that are of particular interest to the researcher; these interests have over time developed into what is described informally (by most) and formally (by some) as consonance and dissonance (or tension/release, stable/unstable, home/away) found in Western music as a whole. Levine (1995) states, 'Dissonance makes music interesting, providing tension, resolution, and energy. The creative use of dissonance might be a good way to describe the entire evolution of Western music' (p. 38). Huron (2006) posits that 'we might use a broader notion of dissonance to refer to both static and dynamic feelings of uneasiness' (p. 311).

Another research intention (via practice-directed research) is the rote-based internalisation and development of academic findings on a practical level. This autodidactic study contains both investigation (by way of this exegesis) and performance (by way of five recitals).

Finally, the method of analysis detailed in this exegesis has been developed as a result of the dearth of analytical tools equipped to deal with C/D in music. Consequently the final intention of this exegesis is to demonstrate an analytical model that exemplifies C/D relationships on a holistic level, and knowledge pertaining to perceived motivation behind these C/D relationships.

Chapter 3. Methodology

3.1. Introduction

This exegesis is part of a Doctor of Musical Arts degree and is primarily performance-driven (based on a 70/30 percent performance/exegesis weighting). The methodology has been designed to support the performance, represented by five recitals performed over a period of four years. This chapter outlines my research process and is divided into six sections: introduction, theory, selection process, analytical research, analytical trial, and practice-directed component.

3.2. Theory

The methodology employed in this exegesis draws largely from quantitative analysis of musical text via transcription. The selection process was partially phenomenologically driven, where my lived experience (Creswell, 1998) of the music aided selection. While maintaining a reflective stance, I was able to derive the essence of Mehltau's music by selecting a suitable cross-section to analyse, using quantitative methods. In *A Phenomenological Approach to Contemporary Music Performance*, Esler (2007) 'poses a performer-centric, phenomenological model. In this model the Self is the primary focus' (p. x). I used a performer-centric phenomenological model as a selection tool (see Chapter 3.3). Practice-directed research was a suitable way of realising the research in a practical manner. This method is fully explored in *Through the Eye of a Needle: The Emergence of a Practice-led Research Doctorate in Music* (Draper & Harrison, 2011). The triangulation resulting from analysis, phenomenological self-reflection, and practice-directed research ensured a robust methodology for this research.

3.3. Selection Process

3.3.1. Initial Selection

It was first necessary to select a cross-section of Mehltau's musical output. I selected 16 albums that were chosen based on the following criteria:

1. Physical releases only
2. USA releases only
3. No collaborative projects
4. No compilations
5. No promotional CDs
6. No ‘sideman’ projects
7. No through-composed albums (e.g. Mehldau’s operatic work)
8. Official releases only (no bootlegs, e.g. *Live at the Stockholm Concert House*)
9. Audio-only releases (no DVDs)

This broad cross-section of music spans 16 years, from 1995 to 2011 and contains all of Mehldau’s trio, solo and ensemble projects during that time (see Table 2).

Table 2: Initial Selection

Album	Format	Live/Studio	Release Date
<i>Introducing Brad Mehldau</i>	Trio	Studio	1995
<i>AOT1</i>	Trio	Studio	1996
<i>AOT2</i>	Trio	Live	1998
<i>AOT3</i>	Trio	Studio	1998
<i>Elegiac Cycle</i>	Solo	Studio	1999
<i>AOT4</i>	Trio	Live	1999
<i>Places</i>	Trio/Solo	Studio	2000
<i>AOT5</i>	Trio	Live	2001
<i>Largo</i>	Ensemble	Studio	2002
<i>Anything Goes</i>	Trio	Studio	2004
<i>Live in Tokyo</i>	Solo	Live	2004
<i>Day Is Done</i>	Trio	Studio	2005
<i>House on Hill</i>	Trio	Studio	2006
<i>Live</i>	Trio	Live	2008

<i>Highway Rider</i>	Ensemble	Studio	2010
<i>Live in Marciac</i>	Solo	Live	2011

3.3.2. Primary Listen

I conducted a primary listen of the 16 albums, making initial improvisational notes as well as documenting track specifics such as album, title, composer, length, meter, key, tempo, category, feel, players, intro, outro, trades, solos and improvisational idiosyncrasies. I recorded large amounts of this data in a spreadsheet. To effectively read this data I suggest downloading the spreadsheet and viewing on a monitor. To download the completed spreadsheet document containing these observations please visit <http://www.jazzpiano.co.nz/download/BMD.xlsx>

The purpose of making detailed notes in this manner was to make the listening process an active one. Documenting the audio material in a spreadsheet achieved formality and provided a focus for my listening (see Figure 1).

Track Name	Album	Format	Category	Feel	Bass Player	Drummer	Date recorded	Released	Label	Producer	Studio/Live	Leadsheet	Transcribe?	Genre
1. It Might As Well Be Spring	Introducing Brad Mehldau	Old Trio	Standard	Straight	Larry Grenadier	Jorge Rossy	March/April 1995	1995	Warner Bros.	Matt Pierson	Studio	Yes	Done	
2. Countdown	Introducing Brad Mehldau	Old Trio	Jazz Standard	Swing	Larry Grenadier	Jorge Rossy	March/April 1995	1995	Warner Bros.	Matt Pierson	Studio	Yes	Outro	
3. My Romance	Introducing Brad Mehldau	Old Trio	Standard	Swing Ballad	Larry Grenadier	Jorge Rossy	March/April 1995	1995	Warner Bros.	Matt Pierson	Studio	Yes	F7 Ed lines	
4. Anget	Introducing Brad Mehldau	Old Trio	Composition	Swing	Larry Grenadier	Jorge Rossy	March/April 1995	1995	Warner Bros.	Matt Pierson	Studio	No	Out vamp	
5. Young Werther	Introducing Brad Mehldau	Old Trio	Standard	Straight Gospel Groove	Larry Grenadier	Jorge Rossy	March/April 1995	1995	Warner Bros.	Matt Pierson	Studio	No	1st ch/D	
6. Prelude To A Kiss	Introducing Brad Mehldau	Diff Trio	Jazz Standard	Light 12/8 Ballad	Christian McBride	Brian Blade	March/April 1995	1995	Warner Bros.	Matt Pierson	Studio	Yes	Done	
7. London Blues	Introducing Brad Mehldau	Diff Trio	Composition	Swing	Christian McBride	Brian Blade	March/April 1995	1995	Warner Bros.	Matt Pierson	Studio	Yes	1st 20? 7	
8. From This Moment On	Introducing Brad Mehldau	Old Trio	Standard	Medium/Fast Swing	Larry Grenadier	Jorge Rossy	March/April 1995	1995	Warner Bros.	Matt Pierson	Studio	Yes	16a? 7	
9. I Say Goodbye	Introducing Brad Mehldau	Diff Trio	Composition	Ballad/Latin-Swing	Christian McBride	Brian Blade	March/April 1995	1995	Warner Bros.	Matt Pierson	Studio	No	5m12s	
10. Blame It On My Youth	Art Of The Trio Volume 1	Old Trio	Standard	Straight Ballad	Larry Grenadier	Jorge Rossy	September 1996	1997	Warner Bros.	Matt Pierson	Studio	Yes	Done	
11. I Didn't Know What Time It Was	Art Of The Trio Volume 1	Old Trio	Standard	Swing	Larry Grenadier	Jorge Rossy	September 1996	1997	Warner Bros.	Matt Pierson	Studio	Yes	Done	
12. Ron's Place	Art Of The Trio Volume 1	Old Trio	Composition	Swing Waltz	Larry Grenadier	Jorge Rossy	September 1996	1997	Warner Bros.	Matt Pierson	Studio	Yes	2m50s/D	
13. Blackbird	Art Of The Trio Volume 1	Old Trio	Pop	Straight	Larry Grenadier	Jorge Rossy	September 1996	1997	Warner Bros.	Matt Pierson	Studio	Yes	Done	
14. Lament For Linus	Art Of The Trio Volume 1	Old Trio	Composition	Straight 16th Feel	Larry Grenadier	Jorge Rossy	September 1996	1997	Warner Bros.	Matt Pierson	Studio	No	Done	
15. Mignon's Song	Art Of The Trio Volume 1	Old Trio	Composition	Straight 16th Feel	Larry Grenadier	Jorge Rossy	September 1996	1997	Warner Bros.	Matt Pierson	Studio	No	Comp?	
16. I Fall In Love Too Easily	Art Of The Trio Volume 1	Old Trio	Standard	Straight Ballad	Larry Grenadier	Jorge Rossy	September 1996	1997	Warner Bros.	Matt Pierson	Studio	Yes	2m05s	
17. Lucid	Art Of The Trio Volume 1	Old Trio	Composition	Straight 16th Feel	Larry Grenadier	Jorge Rossy	September 1996	1997	Warner Bros.	Matt Pierson	Studio	Yes	Lots	
18. Nobody Else But Me	Art Of The Trio Volume 1	Old Trio	Standard	Swing	Larry Grenadier	Jorge Rossy	September 1996	1997	Warner Bros.	Matt Pierson	Studio	Yes	Done	
19. It's Alright With Me	Art Of The Trio Volume 2 (LIV)	Old Trio	Standard	Swing	Larry Grenadier	Jorge Rossy	July/August 1997	1998	Warner Bros.	Matt Pierson	Live	Yes	Should?	
20. Young And Foolish	Art Of The Trio Volume 2 (LIV)	Old Trio	Standard	Straight Ballad	Larry Grenadier	Jorge Rossy	July/August 1997	1998	Warner Bros.	Matt Pierson	Live	Yes	Que? 7	
21. Monk's Dream	Art Of The Trio Volume 2 (LIV)	Old Trio	Jazz Standard	Swing	Larry Grenadier	Jorge Rossy	July/August 1997	1998	Warner Bros.	Matt Pierson	Live	Yes	Last Ch	
22. The Way You Look Tonight	Art Of The Trio Volume 2 (LIV)	Old Trio	Standard	Swing	Larry Grenadier	Jorge Rossy	July/August 1997	1998	Warner Bros.	Matt Pierson	Live	Yes	See notes	
23. Moon River	Art Of The Trio Volume 2 (LIV)	Old Trio	Standard	Straight Ballad	Larry Grenadier	Jorge Rossy	July/August 1997	1998	Warner Bros.	Matt Pierson	Live	Yes	Done	
24. Countdown	Art Of The Trio Volume 2 (LIV)	Old Trio	Jazz Standard	Swing	Larry Grenadier	Jorge Rossy	July/August 1997	1998	Warner Bros.	Matt Pierson	Live	Yes	Solo part?	
25. Song Song	Art Of The Trio Volume 3	Old Trio	Composition	Swing Waltz	Larry Grenadier	Jorge Rossy	May 1998	1998	Warner Bros.	Matt Pierson	Studio	Yes	moments	
26. Unrequited	Art Of The Trio Volume 3	Old Trio	Composition	Straight 16th Feel	Larry Grenadier	Jorge Rossy	May 1998	1998	Warner Bros.	Matt Pierson	Studio	Yes	Done	
27. Bewitched, Bothered And Bewildered	Art Of The Trio Volume 3	Old Trio	Standard	Straight Ballad	Larry Grenadier	Jorge Rossy	May 1998	1998	Warner Bros.	Matt Pierson	Studio	Yes	Done	
28. Exit Music (For A Film)	Art Of The Trio Volume 3	Old Trio	Pop	Straight 16th Feel	Larry Grenadier	Jorge Rossy	May 1998	1998	Warner Bros.	Matt Pierson	Studio	Yes	2m48s	
29. At A Loss	Art Of The Trio Volume 3	Old Trio	Composition	Straight Waltz	Larry Grenadier	Jorge Rossy	May 1998	1998	Warner Bros.	Matt Pierson	Studio	No	Aff?	
30. Convalescent	Art Of The Trio Volume 3	Old Trio	Composition	Straight 16th Feel	Larry Grenadier	Jorge Rossy	May 1998	1998	Warner Bros.	Matt Pierson	Studio	No	All	
31. For All We Know	Art Of The Trio Volume 3	Old Trio	Standard	Straight Ballad	Larry Grenadier	Jorge Rossy	May 1998	1998	Warner Bros.	Matt Pierson	Studio	Yes	No	
32. Rover Man	Art Of The Trio Volume 3	Old Trio	Pop	Swing	Larry Grenadier	Jorge Rossy	May 1998	1998	Warner Bros.	Matt Pierson	Studio	Yes	3m15s	
33. Young At Heart	Art Of The Trio Volume 3	Old Trio	Standard	Rubato	Larry Grenadier	Jorge Rossy	May 1998	1998	Warner Bros.	Matt Pierson	Studio	Yes	No	
34. Sehnsucht	Art Of The Trio Volume 3	Old Trio	Composition	Straight 16th Feel	Larry Grenadier	Jorge Rossy	May 1998	1998	Warner Bros.	Matt Pierson	Studio	Yes	Done	
35. Bad	Elegiac Cycle	Solo Piano	Composition	Solo Song	N/A	N/A	February 1999	1999	Warner Bros.	Brad Mehldau	Studio	Trans	Done	
36. Resignation	Elegiac Cycle	Solo Piano	Composition	Solo Straight	N/A	N/A	February 1999	1999	Warner Bros.	Brad Mehldau	Studio	Yes	moments	
37. Memory's Tricks	Elegiac Cycle	Solo Piano	Composition	Solo Straight	N/A	N/A	February 1999	1999	Warner Bros.	Brad Mehldau	Studio	No	concept?	
38. Elegy For William Burroughs And Allen Ginsberg	Elegiac Cycle	Solo Piano	Composition	Solo Ballad	N/A	N/A	February 1999	1999	Warner Bros.	Brad Mehldau	Studio	No	1m55s etc	
39. Lament For Linus	Elegiac Cycle	Solo Piano	Composition	Solo Straight	N/A	N/A	February 1999	1999	Warner Bros.	Brad Mehldau	Studio	No	Harmony	
40. Trailer Park Ghost	Elegiac Cycle	Solo Piano	Composition	Solo Straight	N/A	N/A	February 1999	1999	Warner Bros.	Brad Mehldau	Studio	No	maybe	
41. Goodbye Storyteller	Elegiac Cycle	Solo Piano	Composition	Solo Waltz	N/A	N/A	February 1999	1999	Warner Bros.	Brad Mehldau	Studio	No	2m46	
42. Rucklick	Elegiac Cycle	Solo Piano	Composition	Solo Straight	N/A	N/A	February 1999	1999	Warner Bros.	Brad Mehldau	Studio	No	No	
43. The Bard Returns	Elegiac Cycle	Solo Piano	Composition	Solo Song	N/A	N/A	February 1999	1999	Warner Bros.	Brad Mehldau	Studio	Trans	No	
44. All The Things You Are	Art Of The Trio Volume 4 (LIV)	Old Trio	Standard	Straight	Larry Grenadier	Jorge Rossy	January 1999	1999	Warner Bros.	Matt Pierson	Live	Yes	Done	
45. Sehnsucht	Art Of The Trio Volume 4 (LIV)	Old Trio	Composition	Straight 16th Feel	Larry Grenadier	Jorge Rossy	January 1999	1999	Warner Bros.	Matt Pierson	Live	Yes	Aff?	
46. Nice Pass	Art Of The Trio Volume 4 (LIV)	Old Trio	Composition	Swing	Larry Grenadier	Jorge Rossy	January 1999	1999	Warner Bros.	Matt Pierson	Live	No	No	
47. Solar	Art Of The Trio Volume 4 (LIV)	Old Trio	Jazz Standard	Swing	Larry Grenadier	Jorge Rossy	January 1999	1999	Warner Bros.	Matt Pierson	Live	No	Done	
48. London Blues	Art Of The Trio Volume 4 (LIV)	Old Trio	Composition	Swing	Larry Grenadier	Jorge Rossy	January 1999	1999	Warner Bros.	Matt Pierson	Live	Yes	En ah	
49. I'll Be Seeing You	Art Of The Trio Volume 4 (LIV)	Old Trio	Standard	Swing	Larry Grenadier	Jorge Rossy	January 1999	1999	Warner Bros.	Matt Pierson	Live	Yes	Maybe	
50. Exit Music (For A Film)	Art Of The Trio Volume 4 (LIV)	Old Trio	Pop	Straight 16th Feel	Larry Grenadier	Jorge Rossy	January 1999	1999	Warner Bros.	Matt Pierson	Live	Yes	Done	
51. Los Angeles	Places	Solo Piano	Composition	Solo Swing	Larry Grenadier	Jorge Rossy	January 2000	2000	Warner Bros.	Brad Mehldau	Studio	Yes	Aff?	
52. 29 Palms	Places	Solo Piano	Composition	Solo Swing	Larry Grenadier	Jorge Rossy	January 2000	2000	Warner Bros.	Brad Mehldau	Studio	Yes	Vamp Solo	
53. Madrid	Places	Solo Piano	Composition	Straight 16th Feel	Larry Grenadier	Jorge Rossy	January 2000	2000	Warner Bros.	Brad Mehldau	Studio	Yes	moments	
54. Amsterdam	Places	Solo Piano	Composition	Solo Straight	N/A	N/A	January 2000	2000	Warner Bros.	Brad Mehldau	Studio	No	No	

Figure 1: Track Specifics and Improvisational Notes

3.3.3. Secondary Listen

I conducted a secondary listen of all 16 albums, reducing the 167 recordings down to a more manageable collection of 42 tracks based on their perceived improvisational quality (see Table 3).

Table 3: 42 Selected Tracks

Track Name	Album
It Might As Well Be Spring	<i>Introducing Brad Mehldau</i>
Blame It On My Youth	<i>AOT1</i>
I Didn't Know What Time It Was	<i>AOT1</i>
Blackbird	<i>AOT1</i>
Lament For Linus	<i>AOT1</i>
Nobody Else But Me	<i>AOT1</i>
It's Alright With Me	<i>AOT2</i>
Monk's Dream	<i>AOT2</i>
The Way You Look Tonight	<i>AOT2</i>
Unrequited	<i>AOT3</i>
Resignation	<i>Elegiac Cycle</i>
Elegy For William Burroughs And Allen Ginsberg	<i>Elegiac Cycle</i>
All The Things You Are	<i>AOT4</i>
Solar	<i>AOT4</i>
I'll Be Seeing You	<i>AOT4</i>
Exit Music (For A Film)	<i>AOT4</i>
29 Palms	<i>Places</i>
Cry Me A River	<i>AOT5</i>
River Man	<i>AOT5</i>
How Long Has This Been Going On	<i>AOT5</i>
When It Rains	<i>Largo</i>
Dusty McNugget	<i>Largo</i>

Paranoid Android	<i>Largo</i>
Anything Goes	<i>Anything Goes</i>
The Nearness Of You	<i>Anything Goes</i>
Smile	<i>Anything Goes</i>
Things Behind The Sun	<i>Live in Tokyo</i>
Someone To Watch Over Me	<i>Live in Tokyo</i>
How Long Has This Been Going On	<i>Live in Tokyo</i>
Knives Out	<i>Day Is Done</i>
No Moon At All	<i>Day Is Done</i>
Happy Tune	<i>House on Hill</i>
B-Flat Waltz	<i>Brad Mehldau Trio Live</i>
Secret Beach	<i>Brad Mehldau Trio Live</i>
More Than You Know	<i>Brad Mehldau Trio Live</i>
Highway Rider	<i>Highway Rider</i>
The Falcon Will Fly Again	<i>Highway Rider</i>
Sky Turning Grey (For Elliott Smith)	<i>Highway Rider</i>
It's All Right With Me	<i>Live in Marciac</i>
Secret Love	<i>Live in Marciac</i>
Resignation	<i>Live in Marciac</i>
Dat Dere	<i>Live in Marciac</i>

Using my initial notes recorded in step one, I established a list of stylistic elements often found in Mehlldau's playing. These elements included (but were not limited to) linear comping, ostinato comping, use of pedal, reharmonisation, melodic quotes in solo, melodic development in solo, quotes, metric modulation, repeated motif, 'classical' influences, gospel influences, blues influences, 'Monk' influences, pentatonics, bebop, and chromaticism. These were idiosyncrasies that I heard in Mehlldau's playing during the active listening process.

3.3.4. Third Listen

I conducted a third listen to all 16 albums documenting where these new stylistic elements occurred; I also made further observational notes (see Figure 2).

Track Name	Album	Harmonically Outside/Interesting Lines	Repeated motif	LH Asc/Dsc Improvisation	Unison	1 - b9 (or sim)	Classical Infl	Gospel Infl	Blues Infl	Monk Infl	Pe
1. Easy For William Burroughs And Alan Ginsberg	Elegiac Cycle	1m25f, 2m43, 3m		2m54	No				2m		
2. Trailer Park Ghost	Elegiac Cycle	5m50s			No				4m74, 5m77s		
3. Goodbye Storyteller	Elegiac Cycle	4m18s, 8m38s			No		Yes		4m56s, 6m04s		
4. Roadblock	Elegiac Cycle				No		Yes		4m36s		
5. The Bard Returns	Elegiac Cycle				No		Beethoven 2m43s				
6. All The Things You Are	Art Of The Trio Volume 4 (LUV)	6m27s, 6m42s, 7m09s	5m43s, 6m47s, 7m25s, 8m02s, 922s	7m02s, 8m46s	No				5m10s		8m2
7. Schemozed	Art Of The Trio Volume 4 (LUV)	3m45s	3m30s	5m20s	No				4m11s, 8m43s, 9m23s		
8. Nice Pass	Art Of The Trio Volume 4 (LUV)	15m49s, 15m57d1, 16m16s	2m46s-3m30s, 3m38s, 4m03s-4m20s, 15m38s	1m16s, 4m48s, 15m28s, 16m30s	Yes		Yes		1m02s, 2m		
9. Solor	Art Of The Trio Volume 4 (LUV)	3m02s, 3m77s, 6m08s Piveman	2m18s-2m40s, 3m38s, 4m07s-4m17s, 5m42s, 7m	5m13s	Once				6m34s		8m2, 8m4
10. London Blues	Art Of The Trio Volume 4 (LUV)	4m05s, 5m06s	4m36s, 4m40s, 5m05s, 5m42s		No				5m10s, 6m32s - like something else?		
11. I'll Be Seeing You	Art Of The Trio Volume 4 (LUV)	1m12s, 2m37s, 3m20s, 4m00, 4m57s	4m27s, 5m23, 5m45s		No				1m02s, 2m13s, 2m50d1, 3m40s		
12. Jack Marder (For A Film)	Art Of The Trio Volume 4 (LUV)	4m23s, 5m11s, 5m46d1	4m23s, 5m05s, 5m56s, 6m47s		No	3m18s	Yes		6m		
13. Los Angeles	Places	2m10s, 2m26s, 2m44s, 4m10s	3m15s	3m19s, 4m04s	No				1m24s, 4m10s		
14. 29 Palms	Places	3m54s, 3m15s, 3m46s, 3m40s			No				3m04s, 3m32s + lots		
15. Madrid	Places	1m12s, 2m25s, 2m47s, 3m40s, 3m46s	3m34s		No	1m44s, 2m16s					
16. Amsterdam	Places				No		Yes		Some		
17. Los Angeles II	Places				No		Yes Very!				
18. West Hartford	Places	3m14s, 3m43s, 3m48s	3m14s, 3m58s, 4m16s	3m20s	No	1m32s, 3m03s, 4m05s			1m32s, 2m13s, 2m49s, 3m33s		
19. Airport Sadness	Places				No		Yes				
20. Penzance	Places				No		Yes	1m2s			
21. A Walk In The Park	Places	1m35s, 1m40s, 2m25s, 2m47s		1m14s-2m10s	Once		1m35s				
22. Paris	Places	4m			No		Yes	5m05s			
23. Schloss Elmsau	Places	2m13s	4m	2m15s	No		Yes		2m09s, 2m58s, 3m27s, 4m21s		
24. Am Zaubertberg	Places				No		Yes				
25. Los Angeles, Repeat	Places				No						
26. The Mock I See You	Art Of The Trio Volume 5 (LUV)	1m44s, 1m48s, 1m15s	1m24s, 2m21s, 3m, 4m20s	2m19s, 3m30s	No				1m46s, 2m10s, 2m38s, 8m		
27. Dream's Monk	Art Of The Trio Volume 5 (LUV)		4m18s, 6m05s, vamp		No				5m58s		Yes
28. The Fools Who Live On The Hill	Art Of The Trio Volume 5 (LUV)	4m13s, 4m47s	4m13s		No				5m40s		
29. Alone Together	Art Of The Trio Volume 5 (LUV)	8m35s	21s, 11m	20s-50s, 1m28s, 1m42s, 9m25s, 10m27s	Yes	1m37s		Intro, 6m37s, YES	7m54s		
30. It Might As Well Be Spring	Art Of The Trio Volume 5 (LUV)				No				2m33s, 3m55s, 4m16s		
31. City Me A River	Art Of The Trio Volume 5 (LUV)	3m05s, 3m25s, 3m45s	3m05s, 4m20s	7m08s	No				2m47s, 3m05s + Lots		
32. River Man	Art Of The Trio Volume 5 (LUV)	1m02s, 4m37s, 5m09s, 5m09s, 6m20s, 6m40s, 7m44s-7m54s, 8m06s	3m05s, 5m30s, 6m50s, 8m20s	2m05s, 7m05s, 7m20s, 7m45s	No	2m56s			4m		
33. Quiet	Art Of The Trio Volume 5 (LUV)	1m02s, 2m04s	3m05s, 4m20s	4m14s, 4m15s	No				6m		
34. Secret Love	Art Of The Trio Volume 5 (LUV)	3m43s, 4m12s	4m05s	3m46s, 6m02s	No	3m28s		1m09s Brahms 4m-1, 4m46s	5m28s		
35. Sublation	Art Of The Trio Volume 5 (LUV)	5m49s	4m48s, 5m28s, 6m29s, 10m11s, 11m31s	4m27s, 9m09s, 10m11s, 11m15s	No				4m21s, 8m13s, 8m40s		
36. Resignation	Art Of The Trio Volume 5 (LUV)	1m47s, 3m05s, 5m03s, 6m13s	2m, 2m04s, 4m39s	5m13s	No	3m04s, 3m12s			2m34s, 4m - Lots more		
37. Long Ago And Far Away	Art Of The Trio Volume 5 (LUV)	25s-30s	Intro, 7m, 9m25s, 11m15s	10m13s	No	58s			56s, 12m02s		
38. How Long Has This Been Going On?	Art Of The Trio Volume 5 (LUV)	2m54s, 3m20s, 3m58s, 8m25s			No	3m28s			3m12s, 6m11s, 8m20s		
39. When It Rains	Largo	2m05s, 2m09s, 3m13s, 4m00s, 4m30s	2m05s, 2m43s, 2m53s, 3m00s, 3m42s, 4m38s, 4m12s		No				3m58s		
40. Young Thing Me	Largo	1m48s, 2m03s	1m49s, 1m58s	2m33s	No		2m28s		1m23s, 2m06s		
41. Denny Monogey	Largo	1m48s, 2m03s	4m15s, 4m20s, 4m55s, 5m13s		No				1m54s, 5m29s		
42. Drippes	Largo	1m48s, 2m03s	18s, 27s, 34s, 1m	47s, 1m11s	No				1m40s		
43. Paradox Arcosis	Largo	2m05s, 3m15s, 4m15s			No				2m49s, 4m27s		
44. Franklin Avenue	Largo	2m05s, 2m49s			No				2m15s		
45. Sabbath	Largo	3m04s, 3m29s, 3m48s	2m05s, 3m		No				Start of solo		3m1
46. Dear Prudence	Largo	3m15s	3m4s		No						
47. Free Willy	Largo				No						
48. Awarado	Largo				No						
49. Waves/Mother Nature's Son	Largo				N/A				2m30s, 2m56s		
50. I Do	Largo		6m09s		No		Yes				
51. Get Happy	Anything Goes	8m06s	5m17s, 6m35s, 6m50s, 6m	3m05s, 3m25s, 6m52s	No				3m15s, 5m11s		
52. Dreamsville	Anything Goes	2m00s, 3m10s	2m37s	2m30s	No				3m38s		
53. Anything Goes	Anything Goes	3m33s, 4m35s	3m46s, 3m53s, 5m, 5m18s	5m10s	No	5m09s			3m46s		

Figure 2: Location of Stylistic Elements

3.3.5. Initial Observations

I investigated links between the 42 shortlisted tracks and my spreadsheet catalogue. I wanted to find out if it was possible to outline in detail what made Mehlldau's playing on the shortlist so appealing to me. Below are some of the conclusions that were drawn from the spreadsheet; they relate specifically to comping, harmony, melody and linear activity. Table 4 shows selected results.

Table 4: Initial Observations

Comping
27 tracks (64%) contain linear comping or contrapuntal left hand movement.
35 tracks (83%) contain comping devices other than normative rootless voicings.
Harmony
10 tracks (24%) contain elements of harmonic superimposition spelling movement in perfect 4ths (C7, F7, Bb7. etc.).
3 tracks contain clear occurrences where the melody has been reharmonised
Melody
23 tracks (57%) contain direct and obvious references to the melody during the piano improvisation.
9 tracks (21%) contain at least one musical quotation, either from a standard or from one of Mehldau's own compositions (self-referential).
Rhythm
2 tracks contain excerpt(s) where a rhythm, consisting of only dotted quarter notes is repeated over several bars creating a sense of constant-shift and syncopation.
Linear Devices
119 interesting or outside riffs/lines/motifs have been documented for further investigation. These outside runs occur on 35 tracks (83%).
26 tracks (62%) contain a repeated motif.
20 tracks (48%) contain linear improvisation played in the left hand.
24 tracks (57%) utilise elements of the bebop language (or other idiosyncrasies).
21 tracks (50%) contain distinct moments of chromaticism.

3.3.6. Initial Conclusions

Two different parallel processes were employed to establish observations. One was a method derived from impartial documentation based on my active listening and experience as a jazz performer, and the other was driven by taste because arguably at an advanced level the study of jazz is largely an autodidactic process. It can be concluded therefore that the elements described below were also the elements that I was most interested in developing.

1. Nearly all of the tracks shortlisted contained significant amounts of harmonically ‘outside’ or ‘interesting’ riffs/lines/motifs recorded for further investigation/transcription.
2. Two thirds contained obvious references to the melody during the piano improvisation, linear comping or contrapuntal left hand movement and motivic repetition or development.
3. Nearly all of the selection contains blues influences, half displayed distinct moments of chromaticism, and nearly two-thirds of the selection utilised elements of bebop, diatonic or other jazz idiosyncrasies.
4. Nearly all contained moments where Mehldau displayed evidence of an adventurous style of comping (e.g. ostinato, contrapuntal movement, extended pedalling, etc).

3.3.7. Additional Selection

During the course of this research, Mehldau released two more albums: *Ode* (Nonesuch, 2012) and *Where Do You Start* (Nonesuch, 2012). Using the same selection process, I included these two albums and shortlisted several tracks for analysis, again based on perceived merit and extended listening.

3.4. Analytical Research

3.4.1. Transcription of Material

I transcribed 18 solos, predominantly (but not exclusively) chosen from the initial 42 selected tracks (as described). ‘Ode’, ‘Kurt Vibe’, and ‘Dreamsketch’ appeared on Mehldau’s 2012 releases. I also transcribed ‘Tres Palabras’. Table 5 lists the solos transcribed.

Table 5: Transcribed Solos

Track Name	Album	Release Date
Blame It On My Youth	<i>AOT1</i>	1996
Unrequited (grand stave)	<i>AOT3</i>	1998
Elegy For William Burroughs And Allen Ginsberg	<i>Elegiac Cycle</i>	1999
I’ll Be Seeing You	<i>AOT4</i>	1999
Exit Music (For A Film)	<i>AOT4</i>	1999

River Man (grand stave)	<i>AOT5</i>	
How Long Has This Been Going On (outro; grand stave)	<i>AOT5</i>	
When It Rains	<i>Largo</i>	2002
Anything Goes	<i>Anything Goes</i>	2004
Tres Palabras	<i>Anything Goes</i>	2004
Someone To Watch Over Me (outro; grand stave)	<i>Live in Tokyo</i>	2004
Knives Out	<i>Day Is Done</i>	2005
Secret Beach	<i>Live</i>	2008
Highway Rider	<i>Highway Rider</i>	2010
Sky Turning Grey (For Elliott Smith)	<i>Highway Rider</i>	2010
Dreamsketch (grand stave)	<i>Ode</i>	2012
Kurt Vibe	<i>Ode</i>	2012
Ode (grand stave)	<i>Ode</i>	2012

In addition to the transcription of 18 full solos, I also transcribed excerpts of solos that were marked as containing elements of particular interest as documented on the spreadsheet. The number of transcribed excerpts exceeded 200. Table 6 shows a list of some of these transcriptions, listed in alphabetical order.

Table 6: Some Transcribed Excerpts

Track Name	Excerpt Location
Angst	2m26s
Cry Me A River	3m05s
From This Moment On	1m48s, 2m34s, 2m54s
I Fall In Love Too Easily	3m06s, 3m27s, 3m48s
Lament For Linus	2m08s, 2m49s
My Romance	4m25s
Nobody Else But Me	1m55s, 3m30s
Prelude To A Kiss	2m52s, 4m39s
Song-Song	4m21s
Young Werther	2m53s

3.4.2. Transcription Method

Where necessary (some transcriptions were available online) I used the computer program *Transcribe* to aid transcription, allowing me to easily repeat phrases and reduce playback speed without changing pitch. I notated all transcriptions using *Finale* professional notation software on an Apple Macintosh computer running OSX.

In many cases I decided to transcribe the treble stave only with accompanying chord symbols (derived from performance of the in-head). For reasons of markedness, some performances required transcription on the grand stave to support analysis that couldn't be exemplified with a single stave (e.g. extensive interplay between hands or extremes of tessitura).

It is widely accepted that transcription is a reductive process. Limitations of the notation system used to document music make it very difficult (if not impossible) to represent all characteristics of a musical performance in a written score. With this fact in mind I transcribed Mehdau's performances in a way that aided performance-focused analysis, as this is primarily a performance degree. For example, if a phrase was played behind/ahead of the beat then I simply notated it to align with the tactus of the piece; I used the commonly accepted labels 'laid back' or 'pushed forward' where necessary to display performance characteristics. This method allowed me to not get preoccupied with notating for notating's sake; after all, the reason for this analysis is to support performances via practice-directed research.

3.4.3. Live Performances

The philosopher Mark Wrathal states, 'You could imagine people who really are connoisseurs of jazz music, who really understand that one of the great things about jazz music is the way musicians are responding to the performance hall and the audience and the particular musicians that are there... and if you are a skilful listener and have the bodily dispositions to pick up on that you would never be satisfied by listening to a recorded jazz performance on CD, because that is not the performance that would be optimal for your bedroom or living room' (Giancarlo & Ruspoli, 2010).

In addition to transcription and analysis of album releases, I travelled abroad to listen to Brad Mehldau play live on three occasions. The first was in Sydney, in January 2012, when I heard

Mehldau play twice as part of a duo with saxophonist Joshua Redman. In March 2012 I heard the Brad Mehldau Trio play twice in Amsterdam, and also once in Italy; I also heard Mehldau perform solo during the same visit. In May 2014 I attended 10 concerts performed by the Brad Mehldau Trio perform at the Village Vanguard in New York. It was important to hear Mehldau play live, as all audio recordings, no matter how well they are recorded, are the end result of a reductive process. I wanted to hear Mehldau's music performed in a live environment so that I could (1) witness firsthand the interaction between musicians, (2) hear how each musician performed largely unamplified (especially at the Village Vanguard as the performance space is very intimate), and (3) gain perspective on how the music was affected by conditions such as the audience and the performance space.

3.5. Analytical Research

3.5.1. Traditional Jazz Analysis

I have a strong interest in jazz analysis. I have taught improvisation to students at tertiary level for eight years. To be thorough I researched recognised methods of jazz analysis by acclaimed authors (e.g. *Jazz Theory Resources, Volume One and Two* [Ligon, 2001]) and scholars such as Gary Potter (1990), helping me collect a set of analytical tools aimed at understanding the transcriptions presented in this exegesis. Topics included (but weren't limited to) scales, rhythm, triadic generalisation, harmonic specificity, voicings, pentatonics, hexatonics, and outside or wrong notes. Using these tools I was able to answer my many questions about how Mehldau constructed his lines and made his note choices.

3.5.2. Study with Gary Burton

I studied under Gary Burton via the Berklee College of Music in Boston's online course in 2012. Burton's syllabus helped me to understand how an acclaimed jazz musician approaches improvisation. I enjoyed online video chat sessions with Burton; we covered topics including jazz analysis, contour/shape, melodic improvising, and communicating to our unconscious/inner player. This course was not only useful for self-evaluation as a performer, it also provided me with a holistic analytical perspective from an established improviser.

3.5.3. Cognitive Analysis

I noticed that Mehldau often plays in a way that doesn't always conform to normative practices as described by Burton and Ligon. I therefore borrowed from the field of cognitive science in order to bridge the gap between the 'what' and the 'why' in music. David Huron's 2006 book *Sweet Anticipation, Music and the Psychology of Expectation* was helpful in providing insight into some of the 'why' questions. Huron coined the term 'contrastive valence' which is particularly useful in describing some of the methods that Mehldau uses when creating improvised lines and shaping solos as a whole. This term is discussed with examples in Chapter 4. Huron's research follows on from *Emotion and Meaning in Music* (Meyer, 1956).

3.5.4. New Model of Analysis

In their article *Consonance and Dissonance in Music Theory and Psychology: Disentangling Dissonant Dichotomies*, Parncutt and Hair (2011) discuss the many different ways that the terms consonance and dissonance can be interpreted. Having established that I needed to build an analytical model to include tools borrowed from jazz and classical traditions, I used this paper to construct an analytical model based on holistic uses of the terms consonance and dissonance. These terms and the analytical lexicon that I have formalised are described fully in Chapter 4, with examples.

3.6. Analytical Trial

After having devised a new model of analysis built on elements of C/D, the next step was to trial the model on select transcriptions.

For the trial, I chose 10 tracks spanning eight of Mehldau's albums released during a 17-year period from 1995 to 2012 (see Table 7). These tracks represent a cross-section of Mehldau's oeuvre; they contain two live tracks, eight studio tracks, two tracks containing transcription on the grand staff, three tracks in a larger format than the trio, and one solo performance.

Table 7: Case Studies

Track Name	Album	Group	Live/Studio	Year
Tres Palabras	<i>Anything Goes</i>	Trio	Studio	2004

Secret Beach	<i>Live</i>	Trio	Live	2008
Sky Turning Grey (For Elliott Smith)	<i>Highway Rider</i>	Ensemble	Studio	2010
Blame It On My Youth	<i>AOT2</i>	Trio	Studio	1995
Highway Rider	<i>Highway Rider</i>	Ensemble	Studio	2010
Anything Goes	<i>Anything Goes</i>	Trio	Studio	2004
Elegy For William Burroughs And Allen Ginsberg	<i>Elegiac Cycle</i>	Solo	Studio	1999
When It Rains	<i>Largo</i>	Ensemble	Studio	2002
Ode (grand stave)	<i>Ode</i>	Trio	Studio	2012
River Man (grand stave)	<i>AOT5</i>	Trio	Live	2001

I found that I was able to successfully analyse 10 solos using this model. The results of this analysis and a transcription of each solo are given in Chapter 5.

3.7. Practice-Directed Component

Gary Burton (2012) reminds us that internalisation is essential when learning improvisational tools, as elements of language must be transferred from the conscious to the unconscious mind via repetition. The unconscious mind is much quicker than the conscious one and therefore it is necessary to internalise any musical concepts. Once this has been achieved then an improviser is free to observe and direct the course of a solo without being restricted by conscious thought.

Having successfully completed an analytical trial, the final step of this study was to internalise via rote the concepts learnt from my research. The Doctor of Musical Arts degree requires five recitals over the course of four years; I used these recitals as benchmarks for my progress in regard to the creative use of C/D. I maintained a reflexive stance when comparing recordings of recitals to my model of improvisation found in Chapter 6. Details of each recital are listed as:

3.7.1. Recital 1: The Evolving Emulation of Mehldau's Style

This recital demonstrated my progress since my MMus recital. Repertoire was chosen from Mehldau's compositions, pop and standard tunes, and exemplified features found in Mehldau's compositions and arrangements.

3.7.2. Recital 2: Compositions of Brad Mehldau

This recital consisted of compositions written by Mehldau containing elements of melody, harmony, consonance and dissonance that resonated with me.

3.7.3. Recital 3: My Compositions

This was a recital of my own compositions, inspired by Mehldau's creative output.

3.7.4. Recital 4: Notes from New York City: Compositions Written in and Inspired by the City That Never Sleeps

This was a recital of my own compositions written in May 2014. I travelled to New York to hear 10 performances by the Brad Mehldau Trio at the Village Vanguard. It was an inspiring trip and I was privileged to meet Brad again (we went to dinner after one of his Sydney shows in 2012) and be able to talk briefly about my research on a couple of occasions.

3.7.5. Recital 5: Final Performance

This was a recital consisting of a final set of original compositions. It demonstrated via performance the conceptual improvisational model described in Chapter 6.

Chapter 4. Consonance and Dissonance (C/D)

4.1. Introduction to C/D

This chapter defines and demonstrates several types of C/D found in Brad Mehldau's music, and explores how Mehldau uses C/D as a whole, creating improvisation that satisfies expectations as theorized by Huron (2006). C/D relationships are divided into five categories: vertical, horizontal, rhythmic, organic and cultural. These categories provide the foundation of an analytical framework used to examine perceived motivation in Mehldau's performances. These categories of C/D are ordered in terms of perceived size, starting with literal and small-scale (vertical) and becoming more figurative and large-scale (cultural).

In terms of classification, on occasion it is challenging to distinguish between categories of C/D. To solve this problem it is necessary to establish the PRIMARY motivation behind the C/D. Problems relating to classification are discussed where relevant throughout this chapter, and especially in Chapter 4.7.7 Problems concerning Classification of C/D.

4.2. Introduction to Vertical C/D

'Simultaneous relationships within individual sonorities are often referred to as vertical... Some vertical intervals are consonant, others are dissonant' (Parncutt & Hair, 2011, p. 150). Vertical C/D describes sonorities consisting of at least two pitches containing identical (or near identical) onsets (starting at the same time). Categorisation of vertical C/D includes single notes (against a harmonic backdrop either spelt or inferred via chord symbols), dyads, triads and diagonal C/D where the primary function is harmonic; these categories are defined and exemplified in this chapter.

4.2.1. Single Notes

Single notes that are considered dissonant to the underlying harmonic structure (often falling on structural locations such as downbeats) are found regularly in Mehldau's improvisation. For the purpose of this exegesis, notes that can be considered dissonant are notes that contradict the harmonic function of the chord (wrong or outside notes). In addition, commonly dissonant notes can be found in dominant sonorities (and one instance over a minor chord) under certain circumstances. These commonly dissonant notes are dissonant if

sounded in an unprepared manner, but are at the same time a common extension for a dominant seventh chord (see Levine, 1995; Ligon, 2001). All other notes are considered vertically consonant.

Table 8 shows major, minor, dominant and half-diminished chords in the key of C. Notes have been categorised as either being consonant, dissonant and commonly dissonant in relation to each chord.

Table 8: Consonant and Dissonant Notes Found in Common Harmonic Sonorities

Chord	Consonant Notes (Chord Notes and Normative Extensions)	Dissonant Notes (<i>Wrong or Outside</i> Notes)	Commonly Dissonant Notes
Cmaj7	C, D, E, F#, G, A, B (R, 2(9), 3, #4(#11), 5, 6(13), 7)	Db, Eb, F, Ab, Bb (b9, b3, 11, b6, b7)	
Cmin	C, D, Eb, F, G, A, Bb (R, 2(9), b3, (4)11, 5, 6(13), b7)	Db, E, Gb, Ab (b9, 3, b5, b6)	B* (7)
Cmin7b5	C, Db, D, Eb, F, Gb, Ab, A, Bb (R, b2(b9), 2, b3, 4(11), b5, b6, 6, b7)	E, G, B (3, 5, 7)	
C7	C, D, E, F#, G, A, Bb (R, 2(9), 3, #4(#11), 5, 6(13), b7)	F, B (11, 7)	Db*, Eb*, Ab* (b9, #9, b13) *Only if unprepared

To clarify what may be considered by some as a controversial standpoint, it is important to discuss commonly dissonant notes in more detail. Sometimes it may be difficult to distinguish whether a note is simply an extension of the chord or should be marked as a dissonance. For example, in the case of C7, b9, #9 and #5 are only considered as dissonant if they are heard unprepared; this is due to the inherently unstable nature of the dominant seventh. It is a generally excepted practice to alter dominant chords using alterations of the fifth and ninth; however, this is usually heard within the context of a consonant horizontal

unit such as an altered or diminished passage, or perhaps supported by a motif to add cohesion (an example of a culturally common motif may be the movement from 3rd to b9th over a dominant chord, the flat ninth is essentially prepared by the cultural expectancy of 3rd–b9th movement so it doesn't sound dissonant to the ear). After experimentation it can be concluded that these extensions sound more dissonant when heard unprepared; this may also be the case for the major seventh spelt over a minor chord, depending on performance specifics such as beat placement, tempo, dynamics, etc.

Ultimately the deciding factor in determining the C/D of a note must be context, which is determined primarily by referring to the original audio source and informed by the skill of the listener. This in itself may seem too subjective, however the C/D level of most chord/tone relationships found within the field of jazz has been adequately defined and documented, with only a small amount of room for subjectivity. To complicate matters further, Huron (2006) suggests that ultimately there is no 'ugly' sound found within music; simple repetition alone creates a sense of predictability and familiarity in music, which in turn evokes a positive limbic effect on a listener, which then can be misattributed to the event itself (p. 241).

4.2.2. Dyads

Dissonant dyads are notes that form an interval of a minor or major second, minor or major seventh, or minor or major ninth. Dissonant dyads contain vertical sensory dissonance (roughness) when isolated (Helmholtz, 1863), and for the most part also contain single notes described as dissonant (see Chapter 4.2.1) in relation to the harmonic structure at onset.

At 5m02s of 'Anything Goes' (*Anything Goes*, 2004), two different dissonant dyads are played in succession (see Figure 3). Mehldau spells a major seventh interval starting on A (A and G#), the third of Fmaj7. A dissonance is formed from the resulting Fmaj7#9 chord, G# being the sharp ninth of F major, itself a dissonant note. The dissonance is brief as the G# is only heard during beat 1. In the next bar at beat 3, a minor ninth interval is played starting on C, the fifth of F7. The notes are C, C and Db, creating a compound chromatic dissonance between two occurrences of the fifth and also the sharp fifth.

Figure 3 shows a musical staff in G major with a 5/4 time signature. The notation includes several chords and dissonant dyads:

- Chords:** F^MA³7, G^M7/C, F^MA³7, and F⁷.
- Dissonant Dyads:**
 - A major 7th dyad (F-A) built from the 3rd degree, creating F^MA³7#9.
 - A minor 9th dyad (F-Bb) starting on the 5th degree, creating F⁷#9add5.

Figure 3: ‘Anything Goes’ – 5m02s

At 2m05s of ‘Elegy For William Burroughs And Allan Ginsberg’ (*Elegiac Cycle*, 1999) Mehldau plays a dissonant dyad forming a minor seventh over a B7 chord, during a minor II–V–I in E minor (see Figure 4). This minor seventh interval is spelt from C (the flat ninth of B7) and includes Bb a seventh above. The resulting chord is a B7b9 (addmaj7), a dissonant vertical sonority.

Figure 4 shows two staves of musical notation in E major with a common time signature. The notation includes several chords and dissonant dyads:

- Chords:** G^MA³7, F[#]M7(b9), B7/F#, E^M7, D^M6, and G⁷AUG.
- Dissonant Dyad:** A minor 7th dyad (B-C) built from the 9th degree, creating B7#9addmaj7.

Figure 4: ‘Elegy For William Burroughs And Allan Ginsberg’ – 2m05s

At 3m29s of Mehldau’s solo performance of ‘How Long Has This Been Going On’ (*AOT5*, 2001), a sharp ninth and natural ninth are spelt over an E7 chord at the end of bar 1; the resulting interval is a major seventh starting on a G. During the middle of the next bar, over an A7 chord, Mehldau plays a major ninth starting on Db. This forms a dissonant dyad that spells the third and sharp eleventh of A7 (see Figure 5).

Figure 5 consists of three staves of musical notation in treble clef with a key signature of one sharp (F#) and a common time signature (C). The first staff shows a melodic line starting with a 3rd interval (B7) and an E7 chord. A bracket above the notes is labeled "DISSONANT DYAD (MAJOR 7TH) BUILT FROM THE 4TH CREATING E7#9A009". The second staff shows a melodic line starting with an A7 chord and a 9th interval. A bracket above the notes is labeled "DISSONANT DYAD (MAJOR 9TH) BUILT FROM THE 3RD CREATING A7#11". The third staff shows a melodic line starting with a D7 chord and a G major 7th chord (GMAJ7).

Figure 5: 'How Long Has This Been Going On' – 3m29s

Finally, in a harmonically static excerpt from 'Bealtine' (*House On Hill*, 2006), at 5m57s Mehl dau plays another dissonant dyad based on a major seventh, starting on the fifth of Ab minor. A D natural is played over an Eb (the sharp eleventh of Ab minor); the result is a dissonance that forms the basis of a phrase using the Ab blues scale (Db, D, Db, B, Ab) (see Figure 6).

Figure 6 consists of two staves of musical notation in treble clef with a key signature of two flats (Bb, Eb) and a 3/4 time signature. The first staff shows a melodic line starting with an Ab minor chord (Abm). A bracket above the notes is labeled "DISSONANT DYAD (MAJOR 7TH) BUILT FROM THE 5TH CREATING AbM7#11". The second staff shows a bass line with a 4-measure rest followed by a series of notes: Eb, Eb, Eb, Eb, D, Eb, Eb, Eb.

Figure 6: 'Bealtine' – 5m57s

4.2.3. Triadic and Other Chordal Dissonance

Triads and other chordal dissonances appear frequently in Mehl dau's improvisation and compositions. Like single notes and dyads, they can be described as dissonances that contain isolated vertical sonorities. They are heard in relation to the harmonic foundation or include the latter.

In 'I'll Be Seeing You' (*AOT4*, 1999) a dissonant triad is spelt at bar 2, the fifth, sharp fifth and eleventh of $Bb7\#5$. The outer notes of this triad form a minor seventh, the fifth and sharp fifth being voiced next to each other creating a dissonant dyad (minor second), and the use of a perfect fourth in a dominant chord furthers that dissonance (see Figure 7).

The image shows a single staff of music in the key of E-flat major (three flats). The time signature is common time (C). Above the staff, three chords are labeled: Eb_{MAJ7} , $Bb+7$, and Eb_{MAJ7} . The first measure contains a chord with notes G, B-flat, and D. A bracket above these notes is labeled '3'. The second measure is a whole rest. The third measure contains a chord with notes G, B-flat, and D. A bracket below these notes is labeled 'DISSONANT TRIAD (5TH, #5TH & 11TH) SPELLING $Bb7+5$ ADD 5'.

Figure 7: 'I'll Be Seeing You' – 1m42s

Another example is heard during the rubato outro of 'How Long Has This Been Going On' (*AOT5*, 2001). At bars 19 and 20, three dominant chords are spelt in succession ($C13$, $F9$ and $A7$), all containing an added fourth, creating a dissonant sonority (see Figure 8).

The image shows two staves of music in the key of C major (one sharp). The time signature is common time (C). Above the first staff, three chords are labeled: $C13_{ADD4}$, $F9_{ADD4}$, and $A7_{ADD4}$. The first staff contains the upper voices (treble clef) and the second staff contains the lower voices (bass clef). The chords are played in succession across two measures.

Figure 8: 'How Long Has This Been Going On' – 6m05s

4.2.4. Diagonal Harmony

Diagonal C/D (Boulez, 1963; Lerdahl, 1989) such as an arpeggio are included in this discussion of C/D as they act as local temporal extensions of vertical sonorities (Parncutt & Hair, 2011, p. 153). Arpeggios can be considered chords for the purpose of this definition, and therefore any arpeggio that spells a harmonic sonority can be described as a vertical C/D.

A good example is the Lydian ascending passage. This is an ascending arpeggio that spells a major triad with a sharp eleventh suffix, in the order of fifth, root, third, sharp eleventh. In the key of C major this would spell (from bottom to top) G, C E, F#. Mehlau's application of this phrase usually spans two octaves and often ends with a descending scale or other horizontal passage. The combination of a vertical ascending arpeggio combined with a

descending horizontal passage subscribes to cognitive home-away-home theories, as dissonance is created via harmonic superimposition on a vertical plane which slowly resolves to consonance via horizontal means (see Chapter 4.7 for holistic examples of C/D). The following examples of this phrase illustrate several transpositions of the passage superimposed upon different harmonic frameworks.

In Figure 9, an excerpt of ‘From This Moment On’ (*Introducing Brad Mehldau*, 1995), Mehldau spells a G Lydian ascending passage (LAP) over an Em7(b5) chord at 2m33s. Commonly accepted jazz theory texts suggest that suitable note choices for an Em7(b5) chord should be derived from a melodic minor scale a minor third up from the chord’s root (also known as the E Locrian #2). In the case of Em7(b5), that would be G melodic minor (G, A, Bb, C, D, E, F# and G). The notes from the G LAP that fall outside that melodic minor scale are B natural and C#; B is of particular interest as it is the fifth of the chord played against the flat fifth spelt by the chord symbol. However, if we consider the minor key centre that Em7(b5) is derived from then this may suggest a reason for this superimposition. Em7(b5) would often be followed by A7(alt) and D minor(maj7), forming part of a minor 2–5–1 cadence. All of the notes of the G LAP are contained within a D melodic minor scale. Mehldau has used the notes contained within the key centre of D minor to form this LAP.

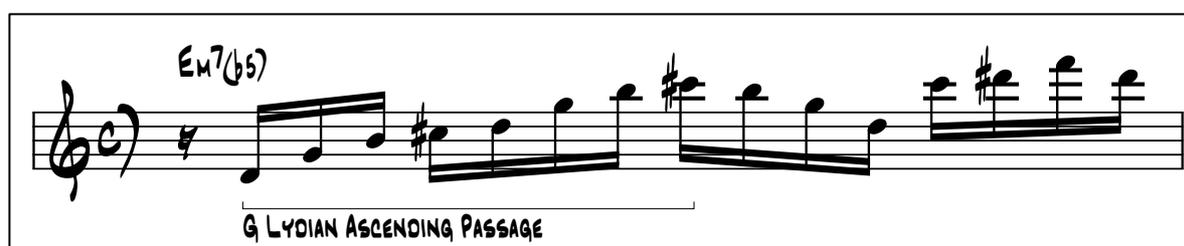


Figure 9: ‘From This Moment On’ – 2m33s

In ‘Lament For Linus’ (*AOTI*, 1996), a harmonic relationship is easier to understand (see Figure 10). The notes of E LAP are all derived from the Bb7 super Locrian scale (Bb, B, C#, D, E, F#, G#, Bb).

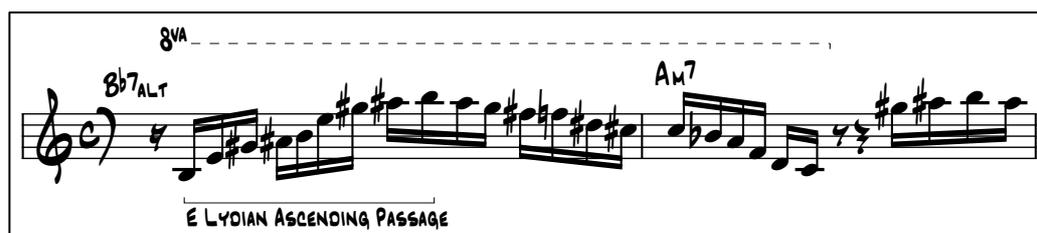


Figure 10: ‘Lament For Linus’ – 2m49s

At 2m56s of ‘Nobody Else But Me’ (*AOTI*, 1996), the excerpt (Figure 11) forms part of a harmonically cyclical line moving in fourths from an Em9 chord in the first bar through Am9, Db/D (a substitution of D7), and Gm7 then finally C7 four bars later. An E LAP is spelt over the first chord of the cycle, namely Em9. This creates vertical dissonance at this point as Mehl dau substitutes minor with major.

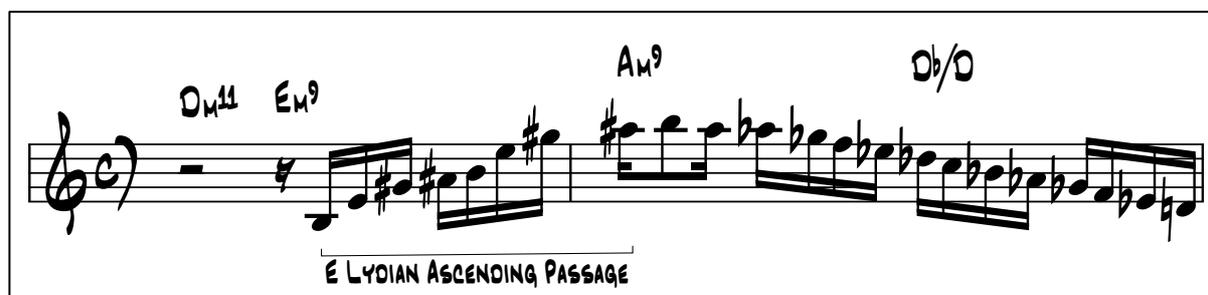


Figure 11: ‘Nobody Else But Me’ – 2m56s

In ‘Sky Turning Grey (For Elliott Smith)’ (*Highway Rider*, 2010) at 4m09s, a tritone relationship is formed between a LAP in A and an Ebm7 chord that supports it (see Figure 12). Dissonance sonorities are heard via the superimposition of E and A against the harmonic foundation, adding a flat ninth and flat fifth to the Ebm7.



Figure 12: ‘Sky Turning Grey (For Elliott Smith)’ – 4m09s

4.2.5. Summary of Vertical C/D

Vertical dissonances have been defined and classified using the terms single-note, intervallic, chordal and diagonal and these definitions assist when considering C/D from a holistic standpoint, both on a local and global scale. Having so many categories of vertical dissonance may seem a little unnecessary at first; for example, it is possible to separate the dissonant notes found in a chord and treat them as a single note dissonances instead of creating a category of triadic dissonance (V/D), thus eliminating the need for the classification altogether. However, if the sonority is a chord or a dissonant arpeggio then it should be labelled as such. Individual types of C/D are discussed first; holistic C/D exemplification and problems contained within the definitions are discussed in Chapter 4.7. The most important

point about vertical dissonance is that its function is to be destabilising in relation to other musical events.

4.3. Introduction to Horizontal Tonal C/D

As defined by Parncutt and Hair (2011, p. 150), any C/D can be considered horizontal if sounded on a temporal level. Therefore horizontal C/D can apply to phrases, chord progressions, rhythm, form, and style. In fact, any form of C/D that is not vertical can be considered horizontal; however, for ease of categorisation and analytical discourse, this exegesis separates elements of horizontal C/D relating to rhythm, organicism and culture from other horizontal dissonances, and limits the definition of horizontal C/D primarily to tonal movement. The advantages of this are practical; it is then possible to discuss rhythmical C/D separately from tonal C/D. A passage can then be described in more complex terms; for example, a phrase may contain a high level of rhythmic dissonance such as metric asynchronicity or have a disjunct metric feel, but be horizontally consonant (diatonic). It allows extremely dissonant sections of music to be labelled as containing vertical, horizontal, rhythmic, and organic dissonances (see Chapter 4.5), making comparisons more formally structured. Meyer (1956) reminds us that ‘as a rule melody, rhythm, harmony, and so forth are perceived together as a single unitary process’ (p. 126).

Horizontal C/D is categorised into consonant melodicism (marked and unmarked), dissonant melodicism, motif and call and response, chromaticism, linear tonality, and perceptual dissonance. These are described below in turn.

4.3.1. Consonant Melodicism (Marked/Unmarked) with a Romantic Bent

Copland (2009) writes of the difficulties associated with describing melodic material: ‘We cannot even say, with any degree of surety, what constitutes a good melody. Still, most people think they know a beautiful melody when they hear one. Therefore, they must be applying certain criteria, even though unconscious ones. Though we may not be able to define what a good melody is in advance, we certainly can make some generalisations about melodies that we already know to be good, and that may help to make clearer characteristics of good melodic writing’ (p. 41). Many jazz texts such as Burton (2012), Galper (2005) and Ligon (2001) describe melodic improvisation as being important without detailing specifics about how ‘good’ melody is formed. Discussion of melodic material is usually related to motif and motivic development (augmentation, inversion, retrograde inversion, etc.) without

addressing perceived motivation. In *Melodic Improvising*, Middleton (2005) argues that ‘Any improviser, beginner or advanced, can increase the interest level and emotional impact of his or her solo by focusing on its melodic development rather than on merely trying to express the complexities of the harmonic progression’ (p. 8). Middleton describes melodies as having certain characteristics, and links emotional impact of the line to its lyricism and tunefulness (p. 11).

Liebman (2005) describes consonant melodies as containing a smooth contour usually consisting of conjunct intervals. ‘A melody should have a clear shape or contour with a defined beginning and ending. A truly satisfying melody should be able to stand alone without any harmonic or rhythmic accompaniment and still portray expressive content. Some melodies are very song-like, easily absorbed by the listener, mostly consonant, and can be considered lyrical. Others may be more abstract and not as singable’ (p. 46). In *Fundamentals of Musical Composition* (1967), Schoenberg defines singable melodies as ‘containing relatively long notes; smooth linkage of the registers; movement in waves, more stepwise than by leaps; avoidance of augmented and diminished intervals; adherence to the tonality and its most closely related regions; employment of the natural intervals of a key; gradual modulation; and a cautious use of dissonance’ (p. 98).

Borrowing from Ron Miller’s definition of romantic melodicism in *Modal Jazz, Composition and Harmony, Volume 2* (2002), examples of melodic characteristics found in romantic melodies include the use of leaps of a major or minor sixth, other intervallic skips for drama, use of flat sixths at cadences, lyrical intervallic quality, enhancement of cadential resolution via non harmonic notes, melodic chromaticism, balanced three-part motivic statements, and cadential suspension (p. 30).

For the purposes of this exegesis, consonant melodicism is defined as melodic improvisation pertaining to the combination of definitions from Liebman, Schoenberg and Miller: singable, self-supporting, wave-like (contour sensitive), largely diatonic melodic writing with a romantic bent. It is to be noted that any non-dissonant (see Chapter 4.3.2) diatonic melody will be considered consonant, but borrowing from Robert Hatten’s (1994, p. 36) definition of *markedness*, particular attention will be focused on melodic improvisation that pertains to a model as defined by Liebman, Schoenberg and Miller.

In ‘Say Goodbye’ (*Introducing Brad Mehldau*, 1995), Mehldau employs two romantic melodic elements: chromaticism and a cadential flat sixth, a D natural alternating between Db, the fifth of the tonicised key centre of Gb major, at bar 2 beat 1 (see Figure 13).

Figure 13: ‘Say Goodbye’ – 3m52s

At 3m53s of ‘Dreamsville’ (*Anything Goes*, 2004), Mehldau employs romantic devices such as repeated notes (bar 1), a melodic leap of a major sixth (bar 1 beat 3), conjunct movement with occasional leaps (bar 2 beats 2–3), a balanced three-part motivic statement (bars 1–3) and some melodic chromaticism (see Figure 14).

Figure 14: ‘Dreamsville’ – 3m53s

4.3.2. Dissonant Melodicism

Dissonant melodicism is easier to define. Both Liebman and Middleton describe melodic dissonance as containing larger intervals (either diatonic or chromatic). Angular melodic lines are disjunct, and don’t follow established musical contours such as post-skip reversal (gap fill). Meyer (1956) states that ‘if weak shapes have resulted largely from exaggerated segregation of stimuli (e.g., extreme distance between pitches, excessive temporal disjunction, or both), then the mind will prefer to regard the stimulus series as being incomplete... further developments will be expected to complete what was incomplete or to effect some other sort of clarification’ (p. 162).

Mehldau often employs disjunct, angular material within the context of his improvisations. Examples can be found in ‘Secret Beach’ (*Live*, 2010) at 4m47s; Mehldau begins a hypermetric section with intervals of an octave, fifth, flat fifth, then after a brief chromatic spell, ends with a flat seventh (see Figure 15). The subsequent phrase also contains large leaps including octaves, fourths, fifths and a seventh before resolving to consonant melodicism at bar 39. The angularity heard in Figure 15 is built upon compound melodic movement such as the descending chromatic line E (bar 1 beat 1) to Eb (bar 4 beat 1) to D (bar 5 beat 1).

The image shows two staves of musical notation in treble clef. The first staff contains four measures of music with chords Am7, Eb/G#, Gm7, and Db7/F. The second staff contains two measures of music with chords Bbm7b5 and Eb7ALT. A bracket with the number '3' is placed over the first three notes of the second measure of the second staff. A horizontal line with the text 'DISJUNCT MELODICISM BUILT UPON COMPOUND MELODY' is drawn across the first staff.

Figure 15: ‘Secret Beach’ – 4m47s

4.3.3. Motif and Call and Response

Huron (2006) states that ‘repetition in music causes the repeated musical patterns to make the transition from short-term to intermediate-term memory. Musical repetition acts like an involuntary form of conscious memorization. It is perhaps no surprise that a musical motive is both (1) the shortest distinct unit of repetition in a work, and (2) the most memorable feature or characteristic of a work’ (p. 229). As stated earlier, for Huron ‘commonly experienced sounds or sound patterns are more likely to evoke a positively valenced affect’ (p. 366).

A motif is a repeated sound pattern (whether harmonic, rhythmic or melodic) and for the purposes of this exegesis can be defined as a unit recognisable as such by listening to the audio source. Huron (2006) reminds us ‘repetition can occur at many temporal levels, from long-term repetition of entire sections of music to brief motivic repetition’ (p. 262), and Mehldau often employs repetition of a phrase unit as a prevailing improvisational concept, therefore creating a motif. This has been documented in Wood’s article *Issues in the Analysis*

of *Improvisation: A Structuralist Approach to the Work of Brad Mehldau* (2005) and Page's master's thesis *Motivic Strategies in Improvisations by Keith Jarrett and Brad Mehldau* (2009). Wood suggests that Mehldau employs a long-term strategy to improvisation that utilises motivic intensification on a temporal scale, while Page posits that Mehldau uses motif as musical glue, binding passages of improvisational material together (p. 34). Analysis of Mehldau's motivic use features in the discussion of complete solos in Chapter 5. Huron (2006) suggests that repetition and similarity provide a positive valence; a reward based on expectation, therefore for the purposes of this exegesis motivic repetition and development can be deemed as consonant.

In 'Knives Out' (*Day Is Done*, 2005), Mehldau employs a motif that occurs within the hypermetric boundaries at the beginning of the piano solo (2m17s). The motif is an anapestic disjunct 3-note cell consisting of 2 semiquavers and a longer sonority, either held or divided by rests. The motivic theme lasts from bar 2 to 18 (see Figure 16).

Figure 16: 'Knives Out' – 2m17s

Mehldau often employs call and response in his improvisation, sometimes using different voices and often using different hands. The same principles that define a motif (i.e. relying on aural verification) can be used to define a section of music containing call and response. Call

and response can also be considered a consonant due to the positive valence created via repetition. In ‘Secret Beach’ (*Live*, 2010) at 5m19s, Mehdau plays a simple repeated rhythmic figure using call and response (see Figure 17).

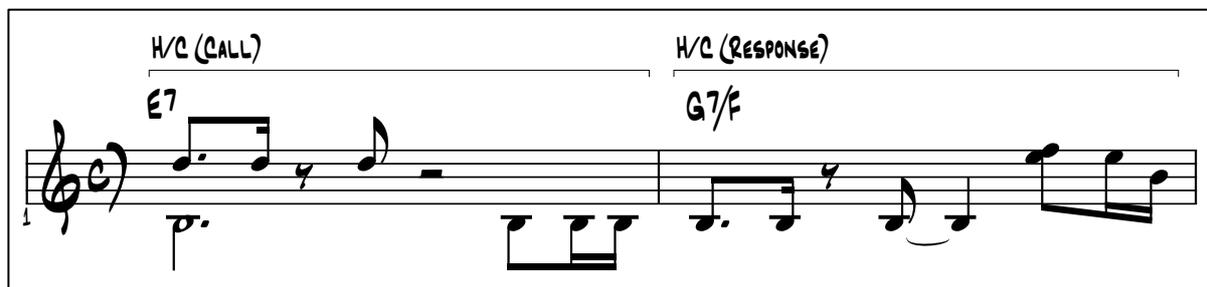


Figure 17: ‘Secret Beach’ – 5m19s

4.3.4. Chromaticism

Huron (2006) states, ‘Chromatic notes are highly unstable, they evoke strong expectations... when a chromatic note is resolved, there is a sense of pleasure evoked even when the resolving pitch is also somewhat unstable’ (p. 165). Chromaticism can be defined as a horizontal dissonance, as it is melodically and harmonically destabilising. Mehdau employs chromaticism regularly, often to transition between sonorities. Chromatic melodic statements can also be found in Mehdau’s improvisation, although generally these are less common.

At 3m12s of ‘When It Rains’ (*Largo*, 2002), a chromatic passage descends from D to F (see Figure 18), in this case joining an ascending arpeggio (bar 1) with a descending one (bar 2).

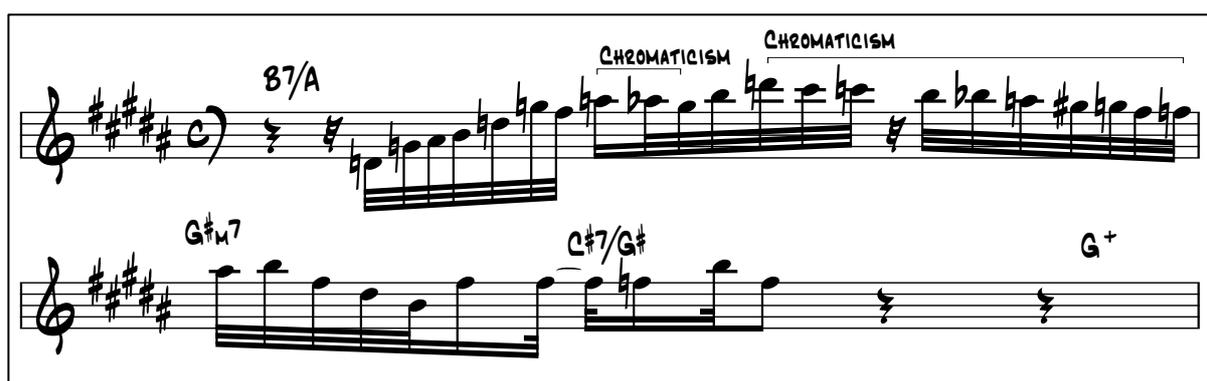


Figure 18: ‘When It Rains’ – 3m12s

Perhaps more melodically, Mehdau uses chromaticism at 5m18s of ‘Say Goodbye’ (*Introducing Brad Mehdau*, 1995) over a cadential II–V–I progression. The phrase starts on a D, descends a minor third to B, then chromatically to A, down a perfect fourth to E, then chromatically to Eb. In addition, each occurrence of this chromatic motif begins in a different

place in the bar, creating a metric shift (see Chapter 4.4.3). The notes are D, B, Bb, A, E, Eb and, with the exception of the Bb, are derived from a Db super Locrian mode (see Figure 19).

Figure 19: ‘Say Goodbye’ – 5m18s

4.3.5. Linear Tonality

According to Ludmilla (1994), ‘linear tonality... refers to a pull of a key centre as a result of melodic movement, not necessarily dependant on harmonic conglomerates’ (quoted in Liebman, p. 172). Mehdau’s use of linear tonality is evident throughout his oeuvre, and can be defined as superimposition that is not necessarily supported by comping patterns by piano or other chordal entity (e.g. strings or pump organ in albums such as *Largo* or *Highway Rider*). It is important to note that categorical placement of linear tonality is in the horizontal section of C/D; improvisation pertaining to harmonic superimposition can be found in the organic C/D section. Although these elements are similar, linear tonality is considered a horizontal dissonance and has a smaller impact, whereas harmonic dissonance acts in direct violation of the harmonic strophe, and is therefore considered an organic dissonance (see Chapter 4.5).

In ‘Exit Music (For A Film)’ (*AOT4*, 1999), Mehdau spells F# Locrian (G Major scale) over an F#7 chord at the beginning and end of Figure 20 at 5m14s; however, the second half of bar one contains all of the notes found in an Eb major scale.

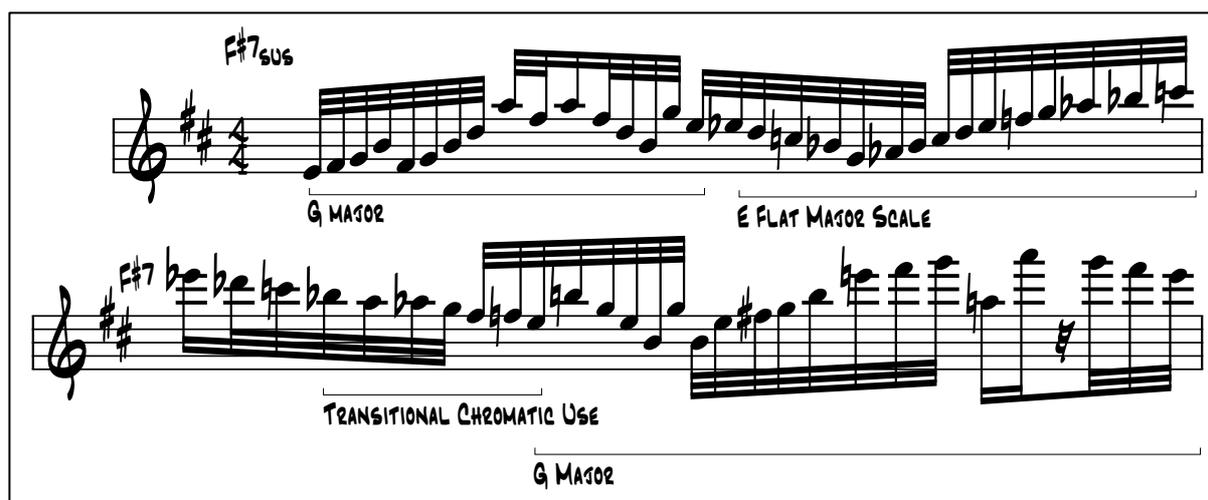


Figure 20: ‘Exit Music (For A Film)’ – 5m14s

Table 9 demonstrates the effect of an Eb linear tonality superimposed over F#7. The result spells a major seventh (F) instead of a flat seventh (E); the scale contains altered notes such as sharp eleventh, sharp fifth and flat ninth, but also a natural ninth and thirteenth, so all of the notes in an Eb major scale are conducive to either an F# Mixolydian or an F# super Locrian mode, excepting F, the major seventh of F#7.

Table 9: Linear Tonality

Eb Major Scale	Eb	F	G	Ab	Bb	C	D	Eb
Relationship to F#7	13	Maj 7	b9	9	3	#11	#5	13

While the F played over an F#7 could be interpreted as a single note dissonance instead of a linear tonality, one must remember that context plays a large part in defining elements of C/D. In this context, the F is clearly part of the Eb major scale lasting for over two beats, and therefore the event can be defined as a linear tonality, and consequently a horizontal dissonance.

An example of cyclical harmonic superimposition can be found at 3m44s of ‘29 Palms’ (*Places*, 2000) when, at bar 3, Mehdau spells, via linear tonality, the three key centres of B, E then A major (circle of fifths), all played over C harmony; this is demonstrated in Figure 21. This harmonic destabilisation resolves on the second beat of bar 2, as the line re-establishes the progression. Again, linear tonality does not necessarily have to rely on

supporting harmonic cadential progressions (such as tonicisation via II–V–I); key centres are instead defined through melodic movement alone.

Figure 21: ‘29 Palms’ – 3m44s

It is important to clarify the differences between ‘linear tonality’ and arguably the more commonly used term ‘bitonality’. Linear tonality doesn’t necessarily require harmonic support; a key can be implied by line alone, where in cases of bitonality, a phrase may contain harmonic events. In essence, linear tonality can be understood as being a subset of bitonality. As Mehdau often implies a state of bitonality using only linear events, the term linear tonality is more appropriate here. Cases where Mehdau superimposes harmonic events can be found; these events create stronger dissonances and are considered as organic dissonances (see Chapter 4.5).

4.3.6. Perceptual Tonal Dissonance

As Berry (1976) notes, ‘There are “dissonances” and “resolutions” within all of music’s parameters... an upward leap in the pitch-line, a highly active (perhaps imitative) texture of competing lines, relative ambiguity or (in relation to a referential norm) asymmetry of metric relations – any of these can, like other, comparable conditions of instability and expectancy of restoration of “simpler” states, be conceived as “dissonant”... These actions and interactions, pertinent to the elements of tonality, harmony, melody, texture, and rhythm, as to further parameters within each of these, are a principal substance of function and expression in music’ (p. 13).

The term ‘perceptual dissonance’ was coined by Parncutt and Hair (2011, p. 150) to describe ‘the independent motion of voices in a Bach fugue – called *auditory stream segregation* in auditory psychology and regarded as the (near-)opposite of *perceptual fusion*’. As discussed

earlier, aspects of horizontal dissonances relating to rhythm, harmony and form will be discussed in later chapters; perceptual dissonance in this case relates to horizontal notes only.

Lehne, Rohrmeier, Gollman, and Koelsch (2012) state, ‘The general tension resolution pattern of a music piece is governed essentially by its tonal structure, rather than by expressive features. Adding expressive features, however, can enhance the experience of musical tension’ (p. 21). So an increase in perceived tonal tension (often supported by an increase in dynamics) is a horizontal dissonance. Examples of perceptual dissonances include (but are not limited to): two (or more) concurrent melodic lines as found in contrary and polyphonic motion, and melodic passages where the contour approaches an extreme of tessitura (horizontal sonorities that challenge the referential norm either on a local or a global level).

Examples of this can be found in most music; Mehldau in particular makes use of polyphonic and contrary-motion melodic ideas on a regular basis. A clear example can be found at 4m17s of ‘Ode’ (Ode, 2012); Mehldau introduces an ascending countermelody from the bass that is juxtaposed against the improvised right hand line (see Figure 22).

The image displays a musical score for piano accompaniment, consisting of three systems of music. Each system has a treble clef on the upper staff and a bass clef on the lower staff. The key signature is three sharps (F#, C#, G#) and the time signature is common time (C).
 - The first system shows a complex right-hand line and a bass line. A chord label 'Amas7' is placed above the right-hand staff.
 - The second system shows a right-hand line with a chord label 'Bm7' above it. The bass line features a section of music bracketed and labeled 'ASCENDING COUNTERMELODY'.
 - The third system shows a right-hand line with a chord label 'E7' above it and a bass line.

Figure 22: ‘Ode’ – 4m17s

An example of tessitural extremes can be found at bar 2 of Figure 23, 2m58s into ‘Elegy For William Burroughs And Allen Ginsberg’ (*Elegiac Cycle*, 1999). Mehldau plays an ascending figure that culminates at C7 (just a few notes below the limit of most pianos); this can be seen as perceptual dissonance as the phrase extends beyond the normative range of the piece/improvised line.

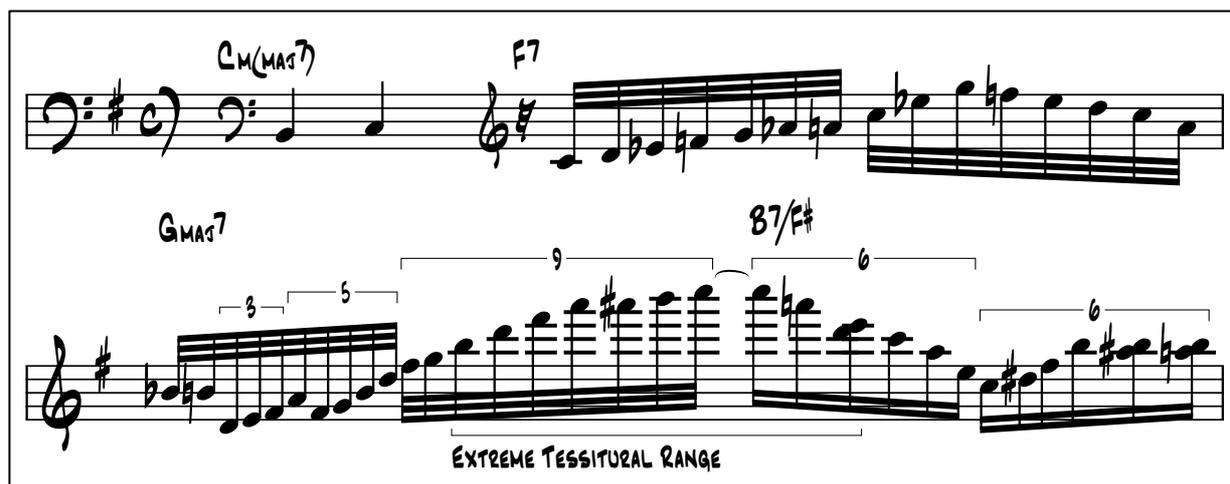


Figure 23: ‘Elegy For William Burroughs And Allen Ginsberg’ – 2m58s

4.3.7. Summary of Horizontal Tonal C/D

Horizontal tonal C/D addresses events played out on a temporal scale, relating specifically to tonality, and has been categorised in this section into six types: consonant ‘marked’ melodicism, dissonant melodicism, motif and call and response, chromaticism, linear tonality, and perceptual dissonance.

Rhythmic, organic and cultural C/D are also horizontal, as they occur across a spatiotemporal plane. However, for ease of categorisation and analytical discourse, this exegesis separates elements of horizontal C/D relating to rhythm, organicism and culture from other horizontal dissonances, and limits the definition of horizontal C/D primarily to tonal movement. The advantages of this are practical; it is then possible to discuss rhythmical C/D separately from tonal C/D. A passage can then be described in more complex terms; for example, a phrase may contain a high level of rhythmic dissonance such as metric asynchronicity or other disjunct rhythmic feel, but be horizontally consonant (diatonic and/or conjunct). It allows extremely dissonant sections of music to be labelled as containing a combination of vertical, horizontal, rhythmic, and organic dissonances, making comparisons clearer.

4.4. Introduction to Rhythmic C/D

Yorgason (2009) defines metric dissonance as a ‘noncongruence between a listener’s internal meter and the metric patterns present in a work’s sounding surface; may involve the emergence of a *potential* secondary meter, but should also include the subtler effects of expressive asynchrony (such as asynchronous metric streams) which slightly ruffle the metric surface without suggesting a secondary meter’ (p. 403).

The terms ‘meter’ and ‘rhythm’ need to be clarified at this point. These terms are often used to mean very similar things. Yorgason (2009) uses the term ‘metric dissonance’ to describe disturbances to the metric norm. Meter is related to the anticipation of re-occurring rhythmic events (in terms of both strong and weak beats), and a sense of meter is used to predict future rhythmic events. Rhythm is used to describe any regular re-occurring motion regardless of whether the re-occurrence aligns with a sense of metric predictability. Meter is a subset of rhythm and this chapter uses the term ‘meter’ when describing rhythmical events in relation to the metric norm. In all other cases, the term ‘rhythm’ is satisfactory to describe re-occurring motion.

The auditory disruption that rhythmic dissonance creates has been categorised into five types in this study: diminishing dispersal, metric asynchronicity/disjunct rhythm, metric shift, temporal density, and expressive variation. All other rhythmic events are considered consonant. At this point it should be noted that for the purposes of this analytical framework, syncopation is considered a consonant; this is arguably because syncopation is such a common occurrence that it is schematically expected in jazz and jazz-derived music. It may on occasion be necessary to deem extreme examples of syncopation as containing metric dissonance in the case studies, however normative use of syncopation is generally expected and therefore does not create any metric dissonance when compared to the rhythmical mean. Just as expressions such as dynamics are often applied to notes for salient affect, syncopation can be used in addition to rhythmic dissonances, furthering the marked dissonance of the rhythmical sonority.

4.4.1. Diminishing Dispersal

Yorgason (2009) describes diminishing dispersal as ‘a temporal process in which successive rhythmic events become more synchronous and constricted; the gradual narrowing of dispersal’ (p. 88). In all cases, the fundamental premise of diminishing dispersal utilises a

‘dissonance-to-consonance’ paradigm; as inter-onset intervals decrease, a positive valence is established as the phrase gradually synchronises with the tactus.

Mehldau regularly employs diminishing dispersal. At bar 1 of Figure 24, an excerpt from ‘Madrid’ (*Places*, 2000), a diminishing dispersal occurs at 1m38s, beginning with three chromatically ascending notes (E, F, F#). The inter-onset frequency between notes gradually decreases from a dotted crotchet (bar 1 beat 2) to a crotchet (bar 2 beat 3) and finally to a quaver (bar 4 beat 4). In this case, syncopation of the first and third note (E and F#) of this phrase adds to the sense of rhythmical displacement.

Figure 24: ‘Madrid’ – 1m38s

In ‘The Nearness Of You’ (*Anything Goes*, 2004), an example of diminishing dispersal occurs at 3m07s (see Figure 25). Mehldau plays a line over a II–V–III–VI–II–V progression in F major. This example contains less syncopation than that from ‘Madrid’, but demonstrates a clear decrease of onset-interval. By dividing each bar into two beats, it is easy to observe that the number of notes contained within each half bar consistently rises from two notes (bar 1 beats 1–2) to 5 notes (bar 1 beats 3–4), then 8 notes (bar 2 beats 1–2) to 10 notes (bar 2 beats 3–4). The phrase is resolved at bar 3 beat 1 with a sudden decrease in rhythmic density and a blues-like figure.

Figure 25: ‘The Nearness Of You’ – 3m07s

4.4.2. Metric Asynchronicity

Yorgason (2009) defines metric asynchronicity as ‘the absence or lack of concurrence in time’ (p. 396). Mehldau uses metric asynchronicity to create dissonance in two ways. The first can be described as disjunct rhythm which is often a precisely dissonant rhythmical stream commonly occurring early on in a solo. The second example of metric asynchronicity usually appears in the latter part of a solo, often accompanied by other dissonances such as linear tonality and harmonic destabilisation. It consists of playing with an ‘absence’ of rhythm.

In an interview with music journalist Bill Milkowski, Mehldau describes these dissonances as ‘a new type of approach we’re exploring where we’re playing the melody and then creating a texture that sort of builds up to a high point, not playing on the changes of the tune and not playing in any rhythmic feel but trying to base the improvisation off the melody’ (quoted in Milkowski, 1998, p. 2).

Figure 26 shows disjunct rhythm at 4m22s of ‘Anything Goes’ (*Anything Goes*, 2004). The 6-bar phrase contains a large amount of rhythmic dissonance, achieved by the use of rests found in either triplet or semiquaver groupings. In the last two beats of bar 1 Mehldau starts by leaving triplet quaver rests at the beginning of two sets of triplets. At bar 2 Mehldau reverses the unit by placing a rest at the end of a triplet phrase, but then immediately reverts to the original idea during beat 2 of bar 2. From bar 3 beat 2, the disjunct rhythm uses semiquaver pairs played almost extensively on each downbeat; this is intensified during beat 3 of bar 4 by 3-semiquaver groupings, then again during the last beat of bar 4 by using a 4-semiquaver cell. This intensity increases gradually at bar 5 as Mehldau uses 5- then 7-semiquaver groupings, before resolving the phrase at the beginning of bar 6. In addition to the disjunct rhythm (which can be informally described as a musical stutter) shown in Figure 26, Mehldau also improvises against the hypermeter during this passage, as the phrase concludes two bars into the final A of an AABA form (see Chapter 4.5 on organic dissonance).

Figure 26: ‘Anything Goes’ – 4m22s

An example of metric asynchronicity can be found in ‘When It Rains’ (*Largo*, 2001).

Mehldau spells an arpeggio based on G minor over an Emaj7#11 chord at bar 1 of Figure 27.

Horizontal dissonance provided by linear tonality, and perceptual dissonance provided by extreme tessitural range, are supplemented by temporal density (see Chapter 4.4.4) and

metric asynchronicity that lasts for 2 bars. Metric asynchronicity is created via the absence of any tactus-aligned phrasing; it is therefore considered asynchronous.

Figure 27: ‘When It Rains’ – 4m50s

4.4.3. Metric Shift

As described by Yorgason (2009), metric shift is ‘a deliberate decision to reinterpret the location of the beat, based on changes in accentual patterns, harmonic rhythm, or other

factors; the recasting of a weak beat as a strong one or the experiencing of a change in meter type (p. 404). For the purposes of this exegesis metric shift (often referred to as polyrhythm) is the perception of multiple metrical layers (Krebs, 1987), giving the impression of concurrent meters. It describes a changing of the path of metric focus (Yorgason, 2009, p. 406). It should be noted some progressive metric theories use the term metric shift to describe ‘only the transitions to and from the state of displacement’ because after the transitions ‘all evidence of the schematic meter disappears’ (Love, 2013, p. 48). In the case of Mehldau’s music, I disagree with Love’s definition, as there is clear evidence of the schematic meter played either on the piano or heard in some form by the rhythm section. Metric shift, for the purposes of this exegesis, is any acoustically salient polyrhythmic activity, and is considered dissonant to the referential norm.

Figure 28 shows an example of metric shift occurring at 2m59s of ‘Knives Out’ (*Day Is Done*, 2005). Mehldau plays a chromatically descending 3-note motif from bar 1. This motif is considered to be horizontally dissonant as it destabilises a sense of the C minor key centre, but also demonstrates rhythmic dissonance via metric shift. The motif creates a dotted crotchet pulse over several bars resulting in a ‘2 against 3’ feel. As explained in *Jazz Polyrythms* (Jones, 2006), ‘Eight dotted quarter notes, played continuously, fit into three bars of 4/4 before the total pattern begins again’. The hypermetric norm for ‘Knives Out’ is a 4-bar phrase, so the conflict between 3 bars of a dotted crotchet pulse against a 4-bar normative pulse creates a metric shift.

The image shows a musical score for 'Knives Out' at 2m59s. It consists of three staves of music in 4/4 time, C minor. The first staff shows a chromatically descending 3-note motif (Bb, Ab, Gb) with a dotted crotchet pulse. Above the first staff, the text 'METRIC SHIFT' and 'Gm7' is written. The second staff continues the motif with a dotted crotchet pulse, and above it is written 'A13(b9)/E'. The third staff continues the motif with a dotted crotchet pulse, and above it is written 'Cm7' and 'Cm7/Bb'. Brackets and 'Etc...' indicate the continuation of the motif.

Figure 28: ‘Knives Out’ – 2m59s

4.4.4. Temporal Density

‘Change in the temporal density of sound events involves change in the quantity of acoustic energy per unit of time, and thus may be perceived as intensity change’ (Eitan & Granot, 2007, p. 45). Krumhansl (1996, p. 414), Farbood (2012, p. 401) and Lehne et al. (2012, p. 3) all associate decreases in temporal density with decreasing tension. Berry (1976) reminds us that rhythmic density (among other elements such as harmony, melody, etc.) can be perceived as being dissonant if there is expectation for resolution to a simpler state.

The increasing frequency of inter-onset intervals increases perceived temporal tension in a musical event. Huron (2006) refers to a period of heightened tension (through high pitches, loud dynamic level, physical intensity) as a climax (p. 322) containing multilevel sustained dissonances (or annoyances), creating a sense of contrastive valence. Huron states, ‘Even as the climax reaches its most clangorous peak, experienced listeners are already anticipating the release in tension and the sense of pleasure that will follow. The music lover rides through the most dissonant build-ups with hopeful excitement’ (p. 326).

There is often a correlation between rising pitches, increased volume, and temporal rhythmic density, but at this stage it is important to isolate specific entities that give rise to dissonance (see Chapter 4.3.6: Perceptual Tonal Dissonance). Temporal density is the increasing of inter-onset interval frequency, often evident during musical climax. Mehltau follows this normative schema and creates densely populated sections of music. There are many examples of this in his music, such as at 4m59s of ‘I’ll Be Seeing You’ (*AOT4*, 1999), where Mehltau plays semiquavers from bar 4 to bar 6 for dissonant effect. This dissonance is resolved at bar 7 (a structural downbeat marks the beginning of the form), providing a cadential and organic anchor (see Chapter 4.5 for organic C/D) and temporary rhythmic consonance (see Figure 29).

At this stage it may be useful to describe the D note on bar 7 beat 1 as a transformational beat. This term was coined by Yorgason (2009) to describe ‘a crisp “corrective” beat event that abruptly terminates any preceding metric dissonance’ (p. 410).

Figure 29: 'I'll Be Seeing You' – 4m59s

4.4.5. Expressive Variation

In *Hearing in Time: Psychological Aspects of Musical Meter* (London, 2004), expressive variation is defined as 'subtle nuances involving compressions and extensions of otherwise deadpan rhythms, what musicians might call *pushing and pulling the time*' (p. 27). Rhythmic dissonance via expressive variation is directly related to the tactus and its absolute subdivisions, where dissonance is perceived to increase as inter-onset intervals stray from it. Yorgason (2009) notes that expressive variation is related to 'structural delay of beat arrivals' (p. 128), and can be understood to be a juxtaposition of two separate metric streams; the first being the underlying tactus and the second being the expressive variation. Aware of the limitations of conventional music notation, and after reflecting on micro-analytical tools as described in *Micro and Micro Jazz Analysis* (Bellaviti, 2005), my description of expressive variation will be limited in this exegesis to common jazz terms such as *laid back* or *pushed forward*. As mentioned before, the reader should refer to the original audio sources in order to fully appreciate the analytical methods or discourse contained within this exegesis.

In 'A Fireside Chat with Brad Mehldau' (AAJ Staff, 2004, n.p.), Mehldau reflects, 'I get a lot from vocalists that I love – Billie Holiday, Dinah Washington, Frank Sinatra – the way they phrase the melody. Often the mere attempt to make the piano phrase like a human voice can point you in an expressive direction: the impossibility of achieving vocal effects on the piano – a long sustain, vibrato, and the like – is a given, but if you have that as an ideal, you can communicate a certain longing in your phrasing'. Mehldau uses expressive variation

especially in compositions with a slow tempo, such as ballads and bossanovas. Looking again at ‘The Nearness Of You’ (*Anything Goes*, 2004), Mehdau not only utilises diminishing dispersal at 3m07s but also employs expressive variation, laying back the phrase at bar 1 and resolving the dissonance created by expressive variation at bar 2 beat 1, a transformational beat (see Figure 30).



Figure 30: ‘The Nearness Of You’ – 3m07s

It should be noted that most music played by musicians contains some expressive variation by default. This can easily be ascertained by listening to music played on notational software such as *Finale* or *Sibelius*, where the music sounds inhuman and artificial to the point where programmers actively try to emulate rhythmic and dynamic artefacts that naturally occur in music played by musicians. However, expressive variation for the purposes of this exegesis pertains to the marked examples – places where the amount expressive variation is at a very obvious level.

4.4.6. Summary of Rhythmic C/D

In this section, rhythmic C/D has been categorised into 5 types: diminishing dispersal, metric asynchronicity, metric shift, temporal density, and expressive variation. As with the discussions of vertical C/D and horizontal tonal C/D, each category has been exemplified by analysing transcriptions of Mehdau’s improvisation. In terms of analysis, each form of C/D has been described on its own terms; however, some events have been linked with other types of C/D, alluding to a more holistic approach, which is to be discussed fully in Chapter 4.7.

4.5. Introduction to Organic C/D

Parncutt and Hair (2011) state, ‘A musical event only sounds familiar if it is similar to previously heard events, which are also similar to each other. By analogy with our comments on other dichotomies, we might anticipate a connection between similarity and consonance,

and between difference and dissonance' (p. 138). The aim of organicism is to create 'works in which everything is an outgrowth of a basic idea' (p. 138).

For Parncutt and Hair (2011), 'Organicism gives a musical work unity... which – in the broadest sense – could be considered an aspect of consonance. From a psychological viewpoint, organicism can only be perceived if recent musical events are perceived to be similar to earlier musical events that have been stored in memory' (p. 138). Organicism relates to melodic, harmonic and rhythmic events, and therefore organic C/D can be defined as C/D relating to aspects of melodic, harmonic and rhythmic consistencies/discrepancies when comparing improvisation to the composition from which it is derived. Therefore, an organic consonance occurs when references to the melody, for example, are made during an improvisation, and organic dissonances occur when violations of parameters like harmony and hypermeter occur, such as a non-congruent phrase rhythm or harmonic deviation.

This chapter categorises organic C/D into four types: melodic quotes, phrase rhythm/hypermetric dissonance, harmonic destabilisation, and harmonic repetition.

4.5.1. Melodic Quotes

In jazz performances, references to the melody during improvisation are fairly commonplace, depending on the musician. Berliner states (1994), 'References to the melody provide a useful connective tissue between a solo and its respective vehicle, reaffirming the identity of the latter and imbuing the former with special characteristics' (p. 172).

Mehldau reflects on Thelonious Monk's pianism in the liner notes to *House on Hill* (2006): 'It's instructive to look at the way Monk fused his writing and his improvising together. The content of his melodies became fodder for his own solos; his solo vocabulary was not derived from fundamentally different stuff than that of his compositions. This might seem obvious and not worthy of mention; after all, riffing on the melody is one way in which jazz improvisation began to flower in its early stages. Monk was onto something else, though, and it involves the actual development of themes during his solo. By development, I mean that the musical content unfolds with a narrative logic; each idea springs from the previous one' (Mehldau, 2006, p. 8). Later on in the notes, Mehldau cites Monk as a source of inspiration: 'I take my cue from his method (Monk) throughout this record to varying degrees, by incorporating the thematic material of my tunes into my solos in a variety of ways... The

musical content of the initial melody becomes formal when it is used throughout the duration of the solo. It is no mere performative utterance; it is more architectural in nature' (p. 9).

A melodic quote can be considered an organic consonance for the purpose of this study. Examples of this can be found throughout 'Sky Turning Grey (For Elliott Smith)' (*Highway Rider*, 2010). As Baynes (2012) notes in relation to this track, 'Mehldau's improvisation evokes a sense of relaxed maturity and stylistic confidence. Chorus one includes strong references to the melody on a regular basis, such as measures 0, 6–7, 11, 16–18, 26–28, 32, 40–41 and 55–60' (p. 80) (see Figure 31).

The image displays a musical score for the piece 'Sky Turning Grey (For Elliott Smith)'. It consists of seven staves of music in a key signature of three flats (B-flat major/D-flat minor) and a common time signature. The score is divided into two systems of four staves each, with a final single staff at the bottom. The top staff of each system is the accompaniment, featuring a variety of chords such as B-flat major 7, G-flat major 7, D-flat major 7/F, E-flat 7, and E-flat major 7/D-flat. The bottom staff of each system is the melody, with several instances where the word 'MELODY' is written above the notes, indicating references to the initial melodic quote. The score includes various musical notations such as slurs, ties, and dynamic markings like '8vb'.

Figure 31: 'Sky Turning Grey (For Elliott Smith)' – 1m59s

4.5.2. Phrase Rhythm/Hypermeteric Dissonance

In *On Phrase Rhythm in Jazz*, Love (2011) explains phrase rhythm or hypermetric C/D in the following way: ‘every solo necessarily involves the superimposition of a grouping structure on a metrical structure... grouping structure can support or contradict meter, creating a state of phrase rhythm *consonance* or *dissonance*’ (p. 9). Hypermeter is defined by Yorgason (2009) as ‘a metrical pattern that occurs at levels higher than that of the notated bar line meter’ (p. 401).

For the purposes of this exegesis, unless otherwise specified the term hypermeter will be used to describe the inherent sectional tendencies found in jazz standards and compositions. For example, a 32-bar AABA jazz composition will arguably contain four hypermetric sections of eight bars each. In all cases, melodic and harmonic considerations will be applied when defining specific hypermetric boundaries. Love’s research into phrase rhythm also proves helpful when phrase boundaries are fuzzy because his clearly defined parameters assist in determining what constitutes a phrase.

In ‘Anything Goes’ (*Anything Goes*, 2004), Mehldau uses hypermetric dissonance in the ‘BA’ part of an AABA 32-bar form (see Figure 32). At 4m22s Mehldau plays a phrase using a disjunct rhythm (see Chapter 4.4.2); the phrase is extended past the hypermetric boundary at the end of B (bar 4 of Figure 32) and finally concludes 2 bars later at bar 6, two bars into the final A section.

The image shows a musical score for the jazz standard 'Anything Goes' at the 4m22s mark. It consists of three staves of music in 4/4 time, with a key signature of one flat (Bb). The score includes various chords and annotations:

- Staff 1:** Chords include Dm7, G7, C#m7, and Cmaj7. There are triplet markings over the notes.
- Staff 2:** Chords include Fmaj9, Ebm9/Db, Bb(Aoo9), and F#dim9/Aoo4. A bracket labeled 'END OF HYPERMETER' spans the end of this staff.
- Staff 3:** Chords include C/E, Cm6/Eb, Dm7, and Gm7/C. A bracket labeled 'HYPERMETRIC DISSONANCE' spans the first two bars of this staff, and another bracket labeled 'END OF PHRASE' spans the last two bars.

Figure 32: ‘Anything Goes’ – 4m22s

4.5.3. Harmonic Destabilisation

In *Dynamic Consonances in Tonal Piano Jazz*, McGowan (2005) discusses harmonic destabilisation as follows: ‘The chord progressions, harmonic rhythm, and formal structures of the popular songs used in tonal jazz are not only simple, predictable, and periodic, but also constantly repeated with little harmonic development in choruses... harmonic interest, in “magical” performances, is directed to sonorities, improvisational strategies of chordal substitution and interpolation, and the ebb and flow of intensity. With the analysis of harmonic function in jazz, the question asked is not “what of the myriad harmonic possibilities will happen next?” but rather “will the harmony that I expect to happen actually occur?”’ (p. 163). As discussed earlier, in his interview with Milkowski (1998), Mehldau describes how he sometimes discards the harmonic structure during an improvisation. The organic dissonance created through harmonic destabilisation from the schematic norm is particularly effective during climactic periods; however, Mehldau utilises both harmonic interpolation and reharmonisation throughout. For normative methods of harmonic destabilisation see Ligon (2001), Johnson-Laird (2002), and Liebman (2005).

In ‘Blame It On My Youth’ (*AOTI*, 1996), Mehldau replaces a dominant Eb7 chord with its tritone partner, A7. This is preceded by Em7, the relative II chord to A7, and is a common form of harmonic interpolation (see Figure 33).

The image displays two staves of musical notation in G-flat major (three flats). The top staff begins with a Bbm7 chord, followed by an Em7 chord, and then an A7 chord. A bracket spans the Em7 and A7 chords, with the text 'TRITONE SUBSTITUTION REPLACING EFLAT7 WITH EM7-A7' written below it. The bottom staff shows an Abmaj7 chord followed by a Bb7 chord. The notation includes notes, stems, and accidentals, with a '5' written below the first staff and a '7' below the second staff.

Figure 33: ‘Blame It On My Youth’ – 5m12s

Perhaps a more original reharmonisation is demonstrated in Figure 34, 3m27s into ‘I Fall In Love Too Easily’ (*AOTI*, 1996). In this example Mehldau plays a II–V–I in Eb major, using a minor II-V; however, a Bmaj7#5 has been substituted for the Fm7b5 using common-tone methods and this descends a tone to Amaj7#5. Parallel motion in this way provides a strong harmonic motivation but also serves as functional harmony as an Amaj7#5 is also a common-

tone substitution for F7alt. The resulting harmonic framework is now much easier to understand: Fm7b5 – F7 (secondary dominant function) – Bb7alt – Ebmaj7.

The image shows two staves of musical notation in treble clef, 4/4 time. The top staff contains a melodic line with several chords indicated above it: Fm7(b5), F7, and Bb7alt. Brackets below the staff indicate two substitutions: (Bmaj7#5 SUBSTITUTION) under the first two chords and (Amaj7#5 SUBSTITUTION) under the last two chords. The bottom staff shows a bass line with chords Ebmaj7 and Cmaj7. A bracket below the bottom staff indicates '(D MAJOR SUBSTITUTION / E FLAT DIMINISHED MAJOR 7)'.

Figure 34: ‘I Fall In Love Too Easily’ – 3m27s

Also in ‘Blame It On My Youth’, at 3m48s Mehldau plays a form of harmonic imposition derived from a sidestep modulation. Figure 35 contains a II–V–I cadence in Eb major. The real point of difference that this phrase contains is the use of bIIIm7-bVII7 as a harmonic imposition, as it is a II-V in the sidestepped key of E major.

The image shows two staves of musical notation in treble clef, 4/4 time. The top staff contains a melodic line with chords F7sus, F7, and Bb7sus. A bracket below the staff indicates '(F#m7 - B7 SUBSTITUTION)' under the last two chords. The bottom staff shows a bass line with chords Ebmaj7 and Cm7.

Figure 35: ‘Blame It On My Youth’ – 3m48s

At 8m30s of ‘River Man’ (AOT5, 2001), Mehldau substitutes a harmonic progression over static changes of C major (see Figure 36). At bar 1 beat 3, he plays D major then E major triads. At bar 1 beat 4 he plays an Aadd11 then Dadd11 at beat 5. Mehldau plays a G major triad at bar 2 beat 1 before resolving to C major. The resulting harmonic progression is C-D-E-A-D-G-C, fundamentally a cyclical progression derived from ascending stepwise movement from the tonic C to E.

Figure 36: 'River Man' – 8m30s

4.5.4. Harmonic Repetition

Meyer (1956) notes that 'a figure which is repeated over and over again arouses a strong expectation of change both because continuation is inhibited and because the figure is not allowed to reach completion. Our expectation of change and our complete willingness to go along with the composer in this apparently meaningless repetition are also products of our beliefs in the purposefulness of art and the serious intentions, the integrity, of the composer. We believe that he will bring about a change' (p. 135). Meyer stresses here the importance of repetition. In terms of organic C/D, repetition is limited to harmony only, and for the purpose of categorisation, melodic repetition, for example motif, is a consonant element of horizontal C/D, not organic C/D. This is because a harmonic C/D is considered to have a greater impact on the structural integrity of form.

Mehldau often employs harmonic repetition. Simply put, he creates and sustains a harmonic vamp at the end of a composition, or sometimes for the entire duration of a piece. Meyer (1956) states, 'as the repeated figure becomes the center of attention, the listener will begin to expect changes to take place... if the figure remains stable or is subjected to only minor variations, saturation may set in' (p. 137). Meyer is referring to two game plans in relation to repetition, and Mehldau uses both. First, Mehldau creates a vamp close to the end of a musical performance, based on a simple repeated chord sequence. The chord sequence, initially intended to be the focus, is repeated without much change. Second, as saturation begins to set in (Meyer, 1956, p. 135), Mehldau then begins to improvise, often building

dissonance to climatic heights. It is important to briefly note that the creation of a vamp at the end of a work also breaks the schematic norm; this in itself creates a brief organic dissonance, which, in turn, gives the new vamp, established via repetition, a positive valence (see Chapter 4.6 on contrastive valence).

Important performances containing outro vamps include ‘Secret Beach’ (*Live*, 2008) at 6m09s, ‘Lilac Wine’ (*Live in Marciac*, 2011) at 5m22s, and ‘Highway Rider’ (*Highway Rider*, 2010) at 5m15s. Important performances where Mehdau uses simple repetitive vamps to form part of a composition and/or improvisation are ‘29 Palms’ (*Places*, 2000) at 2m36s, ‘Jam’ (*Where Do You Start*, 2012) throughout and ‘Dusty McNugget’ (*Largo*, 2001) at 3m57s. Mehdau also favours harmonic vamps when choosing pop compositions as vehicles for improvisation. Seminal performances include ‘River Man’ (*AOT5*, 2001), ‘Dear Prudence’ (*Largo*, 2001), ‘Wonderwall’ (*Live*, 2008) at 2m08s. Finally, vamps can be heard in standards such as ‘Anything Goes’ (*Anything Goes*, 2004) at 6m13s and ‘Someone To Watch Over Me’ (*Live In Tokyo*, 2004) at 5m18s. Table 10 lists the harmonic progressions of some of these vamps.

Table 10: Vamps

Track Name	Harmonic Progression of Vamp
Secret Beach	Fmaj7 Cmaj7/G Fmaj7 Cmaj7/G Fmaj7 Cmaj7/G Amaj7 Cmaj7/G
Lilac Wine	D D/C G/B Gm7/Bb
29 Palms	C Cmaj7 Cm7 F/C
Jam	Gb D
Dusty McNugget	F Dm7b5/E Dm7b5 Dm7b5/E
River Man	Cm7 Eb7 Abmaj7 Cmaj7
Dear Prudence	F Bb B E
Anything Goes	Fmaj7 Dbmaj7 Bbmaj7 Gbmaj7
Someone To Watch Over Me	Bm7 Dm7 Amaj7 C#7 F#7 F#7

4.5.5. Summary of Organic C/D

This section has categorised organic C/D into four types: melodic quotes, phrase rhythm/hypermetric dissonance, harmonic destabilisation, and harmonic repetition, and

provided examples of C/D that either support or violate the organic strophe. Elements that support the strophe, such as a quote from the melody of the head at the appropriate time and harmonic repetition, are considered to be organically consonant. Elements that violate the strophe such as hypermetric dissonance and harmonic destabilisation are considered to be organically dissonant.

4.6. Introduction to Cultural C/D

Cazden (1980) observes that ‘like a verbal language... a music system arises and develops during the history of a music culture, using the term culture in its anthropological sense. The expectations involved in recognising and responding to consonant and dissonant moments thus become embedded in the systemic set, in the built-in complex of familiar forms, normative expectations and habits that are common to members of a given human society during a definable historical period... Musical consonance and dissonance therefore arise, not from nature, but from second nature. Specifically, consonant and dissonant moments function within the framework of the tonal Western music of recent centuries. There they evoke standard and predictable conditioned responses, among people nurtured within that system of music-making, in the same way as they become acculturated to speaking and understanding their native language’ (p. 159). For the purposes of this exegesis, the word ‘cultural’ refers to the acoustic properties found within the normative culture of jazz improvisation and is not used in an ethno-musicological sense.

Parncutt and Hair (2011) note that ‘from a psychological perspective, cultural context is essentially a matter of familiarity (p. 146). Terms such as conditioned (Cazden) and familiarity (Parncutt and Hair) assist in defining cultural C/D for this study, but it is important to emphasise again that cultural C/D here refers to normative idiomatic jazz practices and is not related to ethnological studies on culture. Perhaps the clearest way to define cultural C/D is ‘acoustically stylistic familiarity’ pertaining to 1940s bop and 1950s post-bop jazz. It is not within the scope of this study to debate what defines jazz style (nor the substyles found within it) per se; it is tacitly assumed that the reader is familiar with such devices including (but not limited to) bebop vocabulary, harmonic upper-structure, modes derived from blues, melodic minor, harmonic minor, pentatonic, hexatonic, and octatonic sonorities, etc.

Mehldau employs devices that are considered commonplace within the ‘acoustic culture’ of jazz improvisation. He is also well known for assimilating other styles into his

improvisations. As noted earlier, Mehdau has stated, ‘I draw on a lot of classical music, pop and rock music, music from Brazil, and other stuff. I listen to it for pleasure and enjoyment, and then a lot of it filters out in my playing. With classical music, there’s a written canon there – you can study those scores. There’s a good three centuries of stuff to check out – it’s endless. Ultimately I think of myself as an improvising jazz musician at the end of the day, and one of my talents I guess is assimilating all of that written stuff and making it part of what I do’ (quoted in Vella, 2011, n.p.).

By considering aspects of cultural relationships it is possible to then consider improvisation as being either situated within or markedly different from the cultural norm. For example, improvisations from bebop pioneer Charlie Parker can be described as containing vast amounts of cultural consonance (containing CMAR licks, 3-b9, diminished runs, enclosures, etc.), whereas modern improvisers The Bad Plus display hardly any (although they are most likely aware of cultural norms, they play with little regard to ‘the tradition’).

Mehldau’s earlier works certainly contain cultural consonance. He reflects, ‘When I came off the road I remember musicians like [guitarist] Peter Bernstein and other musical peers saying, “It sounds like you found something that’s more you, sort of your own style.” Because up until that point, the very broad two schools of influences were Wynton Kelly, sort of a hard bop approach that I just love and still do, and then more of a McCoy Tyner kind of thing... and I remember consciously thinking about it. I would think to myself when I was freelancing around New York, “Well, on this gig I did more of a McCoy thing and then on the next gig with Jimmy Cobb I did more of a Wynton Kelly thing. What’s going on here? Where am I in all this?” And I think somehow after that gig with Chris Holliday I found a way of bringing those two things together and assimilating them and then starting to find myself in all of that’ (quoted in Milkowski, p. 3).

After analysing many of Mehdau’s solos, I was able to conclude that the amount of cultural consonance varies from solo to solo and that therefore cultural C/D is a useful analytical tool. This section exemplifies the ways that Mehdau uses cultural C/D, which is divided into five types: blues, quotes, crips, and formulaic improvisation (all of which pertain to consonance), and cultural dissonance.

4.6.1. Blues

Mehldau uses blues-like phrases as a cultural consonance often (but not exclusively) to dissipate other forms of dissonances (see Chapter 4.7 on contrastive valence). Two types of blues scales are found within the culture of jazz improvisation (see Table 11): the major blues scale derived from the major pentatonic scale, and the minor blues scale derived from the minor pentatonic scale (see Ligon, 2001, p. 63).

Table 11: Major and Minor Blues Scales

C Major Pentatonic Scale	C - D - E - G - A
C Major Blues Scale	C - D - Eb - E - G - A
C Minor Pentatonic Scale	C - Eb - F - G - Bb
C Minor Blues Scale	C - Eb - F - F# - G - Bb

An example of a minor blues cliché can be found in the opening improvisational gambit in ‘Kurt Vibe’ (*Ode*, 2012) at 1m34s. Mehldau plays a blues passage starting on bar 1 beat 4 over an Ab7#9/C chord (see Figure 37). The notes are A - Bb - A - Ab - F# - Eb - Gb, all found within the tonic blues of Eb minor.

Figure 37: ‘Kurt Vibe’ – 1m34s

4.6.2. Quotations

Berliner (1994) notes that ‘primary materials for the jazz artist’s vocabulary also include excerpts of jazz pieces, popular songs, Western classical compositions, and compositions from other musical traditions that appeal to a soloist’ (p. 103). Mehldau primarily quotes from what is known as *The Great American Songbook*, a collection of compositions written for musical theatre and made popular primarily during the first half of the 20th century. Mehldau also quotes from other jazz and pop artists such as Thelonious Monk, Charles Mingus, Stevie Wonder, and The Beatles. Additionally, some of Mehldau’s quotes are self-

referential, alluding to his own compositions. All such quotes are considered to be culturally consonant (see Table 12).

Table 12: Quotations

Quotations
'Angst' (Mehldau) quoted at the end of 'My Romance', <i>Introducing Brad Mehldau</i> , 1995
'Cry Me A River' quoted (2m38s) on a 'Prelude To A Kiss', <i>Introducing Brad Mehldau</i> , 1995
'Blame It On My Youth' quoted (3m20s) on 'I Fall In Love Too Easily', <i>AOT1</i> , 1997
'Misterioso' (Monk) quoted (9m03s) on 'Monk's Dream,' <i>AOT2</i> , 1998
'Peanut Vendor' (5m13s) and 'Misterioso' (Monk) (9m) quoted on 'The Way You Look Tonight', <i>AOT2</i> , 1998
'My Romance' (3m) quoted on 'Bewitched, Bothered And Bewildered', <i>AOT3</i> , 1998
'My Favourite Things' (12m51s) quoted on 'All The Things You Are', <i>AOT4</i> , 1999
'All the Things You Are' (3m46s) quoted on 'Solar', <i>AOT4</i> , 1999
'Sleigh Ride' (Leroy Anderson) (5m13s) quoted on 'The Folks Who Live On The Hill', <i>AOT5</i> , 2001
'Cry Me A River' (7m24s) quoted on 'Secret Love', <i>AOT5</i> , 2001
'It's Alright With Me' (3m42s) quoted on 'Memory's Tricks', <i>Elegiac Cycle</i> , 1999
'Resignation' (Mehldau) (5m16s and 7m06s) quoted on 'Ruckblick', <i>Elegiac Cycle</i> , 1999
'Sublation' (Mehldau) (2m57s) and 'Summertime' (3m31s) quoted on 'Madrid', <i>Places</i> , 2000
'It Ain't Necessarily So' (1m34s) quoted on 'You're Vibing Me', <i>Largo</i> , 2004
'Blue And Green' (1m56s) quoted on 'Alvarado', <i>Largo</i> , 2004
'I Loves You Porgy' (3m34s) quoted on 'I've Grown Accustomed To Her Face', <i>Anything Goes</i> , 2004
'Blame It On My Youth' (5m29s) quoted on 'Someone To Watch Over Me', <i>Live in Tokyo</i> , 2004
'Sunny Side Of The Street' (1m48s) and 'Peanuts' (Mingus) (3m03s) quoted on 'Monk's Dream', <i>Live in Tokyo</i> , 2004
'Martha My Dear' (The Beatles) (11m20s) quoted on 'Paranoid Android', <i>Live in Tokyo</i> , 2004
'Peanuts' (4m07s) quoted on No Moon at all, Day is Done, 2005

'Fascinating Rhythm' (3m50s) quoted on 'Fear And Trembling', <i>House on Hill</i> , 2006
'Fascinating Rhythm' (1m43s and 2m32s) quoted on 'Ruby's Rub', <i>Live</i> , 2008
'Misterioso' (Monk) (3m38s) quoted on 'B-Flat Waltz', <i>Live</i> , 2006
'Cry Me A River' (4m11s) quoted on 'The Very Thought Of You', <i>Live</i> , 2006
'Misterioso' (Monk) (57s) quoted on 'Buddha Realm', <i>Live</i> , 2006
'Sir Duke' (Stevie Wonder) (5m02s) and 'Misterioso' (9m02s) quoted on 'C.T.A', <i>Live</i> , 2006
'Sugar' (2m24s) quoted on 'Dat Dere', <i>Live in Marciac</i> , 2011

4.6.3. Crips

Berliner (1994) states, 'Veterans refer to the discrete patterns in their repertory storehouses as vocabulary, ideas, licks, tricks, pet patterns, crips, clichés, and, in the most functional language, things you can do. As a basic musical utterance, a thing you can do commonly involves a 1–4-measure phrase. Depending on the artist's treatment of material, however, an idea or crip can range from such simple formulations as a sustained or repeated pitch, or a short rhythmic figure reminiscent of those of early jazz solos, to an elaborate melodic phrase characteristic of later performance styles' (p. 102). In an interview with scholar Kirstin Mackenzie, Mehldau reflects on his own 'repertory storehouse': 'I never pre-conceive my solos ahead of time. But of course there's a whole library of melodies etc.... in my head that's stored away, and on a less inspired night, I'm more aware of that library; it's like, "Oh yeah, there's that again"' (quoted in Mackenzie, 2003).

The following presents a selection of the crips that Mehldau has in his employ; it is certainly not an exhaustive list, but it does illustrate Mehldau's use of this device. Crips are considered a cultural consonant. All examples of cultural C/D will be included in the case studies (Chapter 5).

1. Possibly the most common crip that Mehldau uses (it is found in 47% of the tracks analysed for this exegesis) has been defined by Page (2009) as a *closing signal* occurring as a downbeat event, often consisting of two consecutive crotchets or quavers. Page explains, 'these closing signals... are not heard as something that moves the music forward; rather, they are binding points that remind the listener where the music has come from' (p. 36). I prefer to describe these rhythmically consonant detached closing signals as 'stabs'.

In the opening statement of the piano solo in 'Unrequited' (*AOT3*, 1998), Mehldau plays a set of 3 stabs (B-E-E) in bar 1 beats 1-3, another set of two syncopated stabs (A-A) in bar 3 beat

2, and finally a pair of stabs (G-G) bar 5 beat 2. Each set of stabs provides phrase closure, and in this particular example Mehl dau treats the stabs as a kind of motivic end point, utilising repetition for positive valence and rhythmic variety for contrast (see Figure 38).

The image shows a piano accompaniment for the song 'Unrequited'. It consists of two systems of staves. The first system has a treble clef staff with a key signature of one sharp (F#) and a common time signature (C). The bass clef staff has a key signature of one sharp (F#). The first system includes a double bar line. Above the treble staff, the chords E_M7 and C_MA₇ are indicated. A bracket labeled 'STABS (CLOSING SIGNAL)' spans the end of the first system. The second system also has a treble clef staff with a key signature of one sharp (F#) and a common time signature (C). The bass clef staff has a key signature of one sharp (F#). Above the treble staff, the chords A_M7, B₁₃(b₉), and C_M7 are indicated. Brackets labeled 'STABS' are placed above the treble staff in the second and third measures of the second system.

Figure 38: 'Unrequited' – 2m48s

A sample of other occasions where Mehl dau uses stabs is given in Table 13.

Table 13: Stabs

Track Name	Album	Stabs
It Might As Well Be Spring	<i>Introducing Brad Mehl dau</i>	2m30s, 4m12s
Blame It On My Youth	<i>AOT1</i>	3m23s, 3m28s,
I Didn't Know What Time It Was	<i>AOT1</i>	2m29s, 4m48s
It's Alright With Me	<i>AOT2</i>	2m44s
Young And Foolish	<i>AOT2</i>	3m43s, 4m36s
At A Loss	<i>AOT3</i>	2m40s, 2m51s, 4m44s
Resignation	<i>Elegiac Cycle</i>	1m36s, 1m44s, 2m11s
Nice Pass	<i>AOT4</i>	48s, 1m48s, 5m55s
Madrid	<i>Places</i>	1m18s, 1m36s, 2m02s, 3m09s, 4m05s
The Folks Who Live On The Hill	<i>AOT5</i>	3m48s, 4m58s
When It Rains	<i>Largo</i>	2m11s2m22s, 2m47s,

		4m10s
Tres Palabras	<i>Anything Goes</i>	1m30s, 2m12s
Knives Out	<i>Day Is Done</i>	2m33s, 3m22s
House On Hill	<i>House on Hill</i>	2m40s, 3m09s, 3m21s, 3m33s
Wonderwall	<i>Brad Mehldau Trio Live</i>	4m30s
The Very Thought Of You	<i>Brad Mehldau Trio Live</i>	3m35s, 5m09s
Buddha Realm	<i>Brad Mehldau Trio Live</i>	51s, 2m03s
C.T.A	<i>Brad Mehldau Trio Live</i>	8m22s
More Than You Know	<i>Brad Mehldau Trio Live</i>	3m29s
Countdown	<i>Brad Mehldau Trio Live</i>	4m34s, 5m03s

2. Mehldau uses a chromatic crip such as the one found at 1m52s of ‘River Man’ (AOT5, 2001). The crip starts with a descending chromatic passage that acts as a prefix to a descending arpeggio (see Figure 39). This chromatic crip also acts as a closing signal.

Figure 39: ‘River Man’ – 1m52s

An almost identical phrase can be found at 2m52s (see Figure 40) of ‘Prelude To A Kiss’ (Introducing Brad Mehldau, 1995).

Figure 40: ‘Prelude To A Kiss’ – 2m52s

3. Mehl dau embellishes a major triad with lower neighbour notes (both chromatic and diatonic) in a crip that can be found at 2m56s of ‘Boomer’ (*House On Hill*, 2006) (see Figure 41). Other examples of the same phrase can be heard at 2m45s of ‘Wonderwall’ (*Live*, 2008), 16m16s of ‘Nice Pass’ (*AOT4*, 1999), 3m50s of ‘Resignation’ (*AOT5*, 2001) and 3m34s of ‘West Hartford’ (*Places*, 2000).

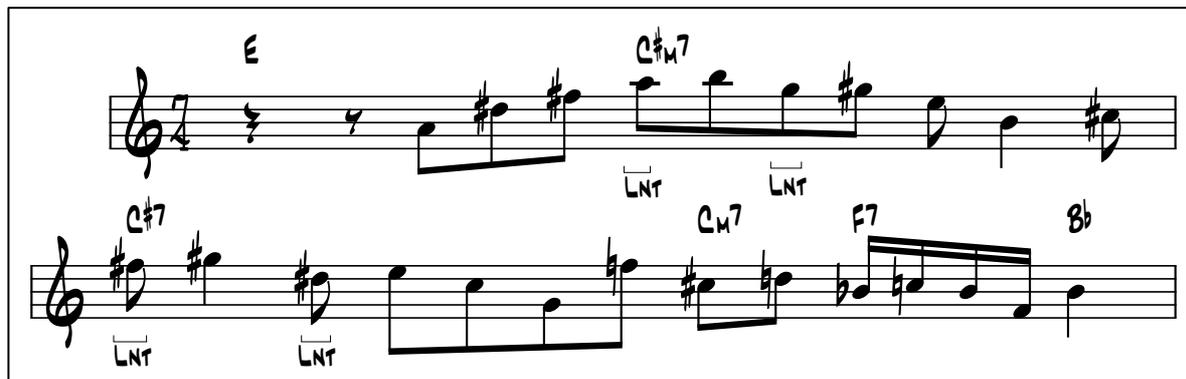


Figure 41: ‘Boomer’ – 2m56s

4. The next example can be heard at 3m20s and 3m49s of ‘Bewitched, Bothered And Bewildered’ (*AOT3*, 1998), 3m15s of ‘River Man’ (*AOT3*, 1998), and 4m21s of ‘Song-Song’ (*AOT3*, 1998), and consists of a descending arpeggiated figure suffixed by a repeated note playing a dactylic rhythmic grouping (see Meyer, 1956, p. 107) (see Figures 42–45).

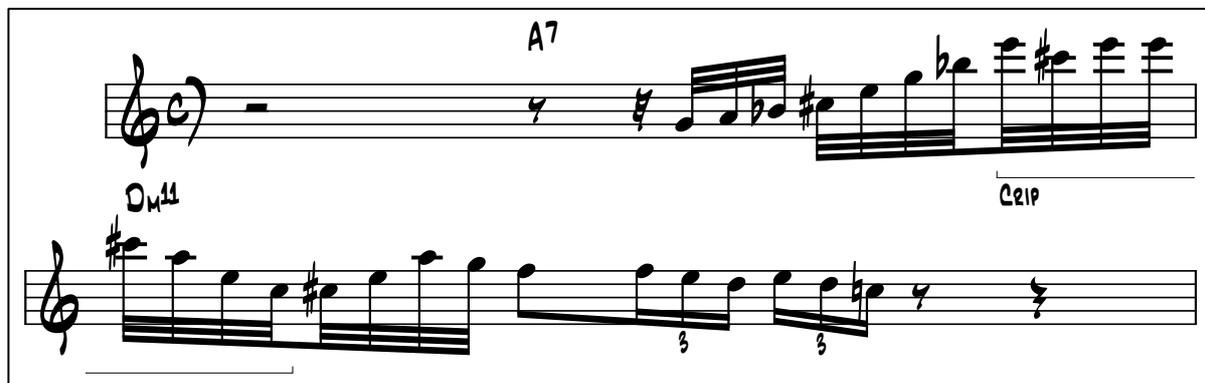


Figure 42: ‘Bewitched, Bothered and Bewildered’ – 3m20s

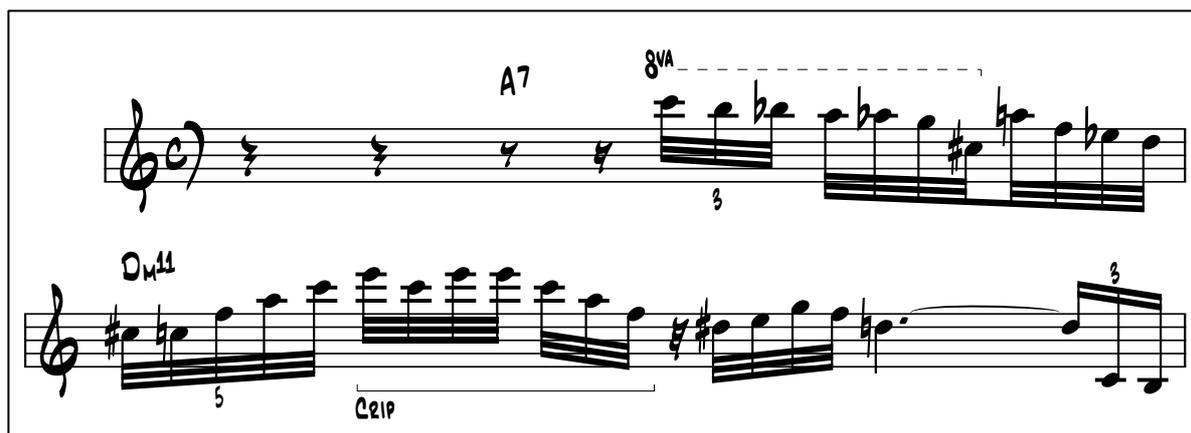


Figure 43: 'Bewitched, Bothered and Bewildered' – 3m49s

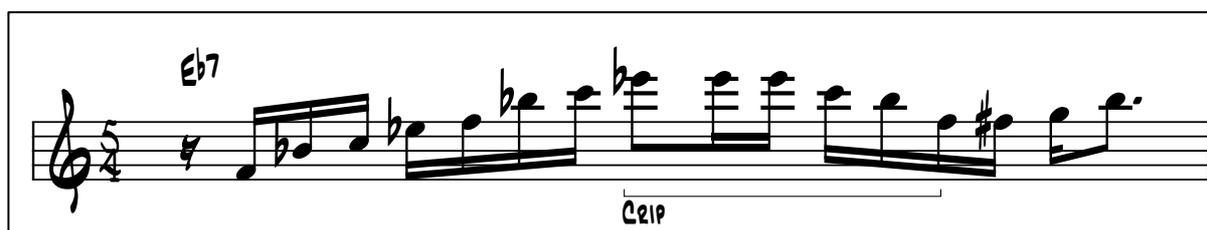


Figure 44: 'River Man' - 3m15s

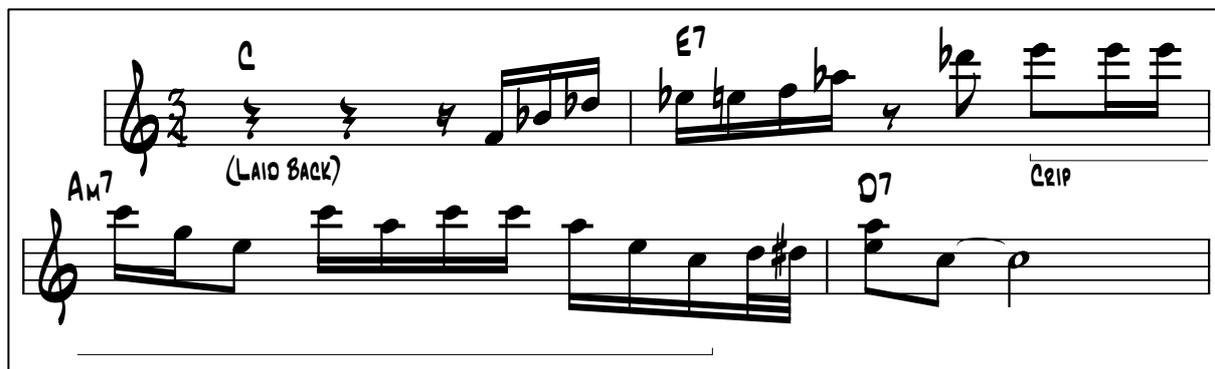


Figure 45: 'Song-Song' – 4m21s

5. A similar crip can be found at 5m24s of 'Exit Music (For A Film)' (AOT4, 1999), 8m55s of 'River Man' (AOT5, 2001), 5m09s of 'London Blues' (AOT4, 1999), 16m16s of 'Nice Pass' (AOT4, 1999), and 3m50s of 'Resignation' (AOT5, 2001). This crip is built on either a descending arpeggio or descending scale, prefixed by spondaic rhythmical grouping (see Figures 46 and 47).

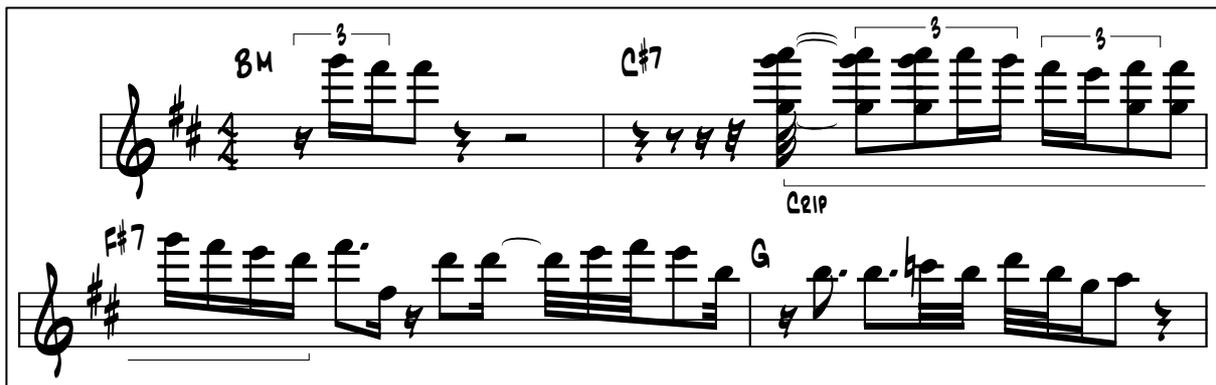


Figure 46: 'Exit Music (For A Film)' – 5m24s

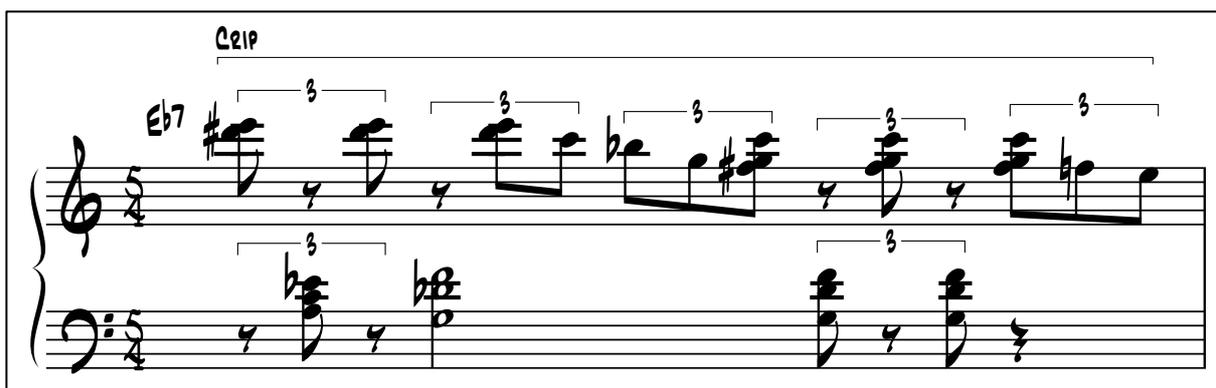


Figure 47: 'River Man' – 8m55s

6. Finally, a similar crip is found at 3m13s of 'Dear Prudence' (*Largo*, 2002), 7m11s of 'She's Leaving Home' (*Day Is Done*, 2005), and 4m05s of 'Goodbye Storyteller' (*Live in Marciac*, 2011). The crip consists of a rising melody (or compound melody; see Pankhurst, n.d.) followed by a descending arpeggio (see Figures 48 and 49).

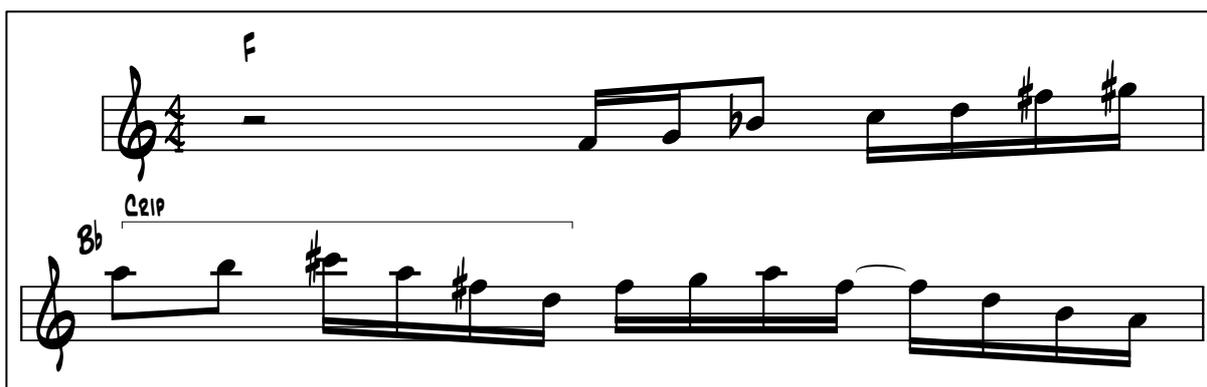


Figure 48: 'Dear Prudence' – 3m13s

Figure 49: ‘She’s Leaving Home’ – 7m11s

4.6.4. Formulaic Improvisation

In the entry for ‘Improvisation’ in *Grove Music Online*, Nettle et al. (n.d.) define formulaic improvisation as ‘the principal manifestation of the fragmentary idea... This is the most common kind of improvisation in jazz... the essence of formulaic improvisation is that the formulae used do not call attention to themselves, but are artfully hidden, through variation, in the improvised lines’ (n.p.). Charlie Parker is identified by the authors as the quintessential formulaic improviser, utilising around 100 fragments that he worked and reworked.

It is not within the scope of this study to define normative use of formulaic improvisation; it is tacitly assumed that the reader will be suitably versed in improvisational devices including (but not limited to) CMAR, CESH, 3-b9, enclosure, triad pairing, upper structure, diminished scales, modes from melodic and harmonic minor, pentatonics, quartal improvisation, and 4-note groupings. For the purposes of this exegesis formulaic improvisation describes parts of the jazz language/tradition that aren’t markedly different (such as blues, quotes and crips) and can be considered a cultural consonant.

An example of 4-note grouping is found at 3m34s of ‘Lithium’ (*Live in Marciac*, 2011); groupings include (from bar 3 of excerpt) 5-4-1-5, 3-1-2-5, 3-1-2-4, 3-2-1-b7, 1-5-1-3, 5-3-4-6, etc. (see Figure 50).

Figure 50: 'Lithium' -3m34s

Many formulaic devices can be found at 2m36s of 'I'll Be Seeing You' (AOT4, 1999). Mehldau uses chromaticism, secondary dominant superimposition, super Locrian mode, and chromatic approach notes to create a II-V-I line in Eb major. This line starts on the eleventh of Fm7, Bb, ascends chromatically to C, then forms an arpeggio, C- Eb-Gb, spelling part of an F7b9 chord, which has been superimposed on Fm7. The second bar contains a descending line using Bb7 super Locrian tonality that resolves to Eb major just before bar 3 (see Figure 51).

Figure 51: 'I'll Be Seeing You' - 2m36s

4.6.5. Cultural Dissonance

Cultural dissonance, as the inverse of cultural consonance, can be defined as any marked sonority (Hatten, 1994) that isn't associated with the jazz tradition. In an interview with jazz writer Ted Panken, Mehldau reflects, 'I was around 22, maybe four years in New York, and for whatever reason, I started rediscovering classical music with deep pleasure. What I did, what I'm still doing now, as I did with jazz for a long time, I absorbed-absorbed-absorbed. I went on a buying frenzy to absorb a lot of music' (Mehldau, quoted in Panken, 2008, p. 6). Mehldau has gained much acclaim in the jazz world for the fusion of styles he displays, and an active listening of Mehldau's oeuvre clearly reveals this aspect of his performance. His classical stylistic bent, for example, is well documented by critics, scholars, and Mehldau himself.

A clear example of cultural dissonance can be seen in the comping style during the first chorus of 'Ode' (*Ode*, 2012). For the first 10 bars Mehldau comps using mainly triads based on repeated quavers (see Figure 52); during bars 22–26 he comps using simple triads (see Figure 53). In this case, a disregard of the normative use of colour notes in Mehldau's harmony can be considered a cultural dissonance.

The image shows a musical score for piano accompaniment in the key of A major (two sharps). The score is divided into two systems. The first system covers bars 1 to 4. The second system covers bars 5 to 8. The key signature is A major (two sharps). The time signature is common time (C). The score includes the following elements:

- System 1 (Bars 1-4):**
 - Chord: Bm^7 (Bar 1)
 - Chord: E^7 (Bar 4)
 - A bracket labeled "CULTURALLY DISSONANT COMPING" spans bars 2 and 3.
- System 2 (Bars 5-8):**
 - Chord: A_{maj}^7 (Bar 5)
 - Chord: D_{maj}^7 (Bar 8)

The piano part features a mix of triads and repeated quaver patterns. The melody is written in the right hand, and the accompaniment is in the left hand.

Figure 52: 'Ode' – 2m

Figure 53: 'Ode' – 2m37s

4.6.6. Summary of Cultural C/D

This section has categorised cultural C/D into 5 types: blues, quotations, crips, formulaic improvisation, and cultural dissonance. Any sonority that follows normative jazz practices is considered a cultural consonance (e.g. blues, quotations, crips, enclosure, CMAR), and any marked occurrence of a distinctive cultural disparity is a cultural dissonance. It can be tacitly assumed that over time, certain devices that were once culturally dissonant, through repetition would naturally become culturally consonant, if adopted by the 'mainstream' improvising collective. An example of this is the use of odd time signatures. Before the groundbreaking album *Time Out* (Brubeck, 1959) this was an anomaly but it is now commonly adopted by arrangers and composers. This can also be said for certain dissonances such as a b9 over a minor/major chord, which is a dissonance for the purpose of this exegesis, and in general it is not commonplace in mainstream jazz. However, certain jazz artists – Kurt Rosenwinkel, Chris Potter, and Mark Turner to name but a few – have made names for themselves with the use of unconventional dissonances such as this.

4.7. Introduction to Holistic Examples/Contrastive Valence

Thus far we have examined individual sonorities and assessed these using terms relating to consonance and dissonance. C/D events have been divided into five categories: vertical, horizontal, rhythmic, organic and cultural C/D. These categories form the foundations of the analytical model developed in this exegesis to examine perceived motivation in Mehldau's performances. Before examining entire solos, which is the work of Chapter 5, it is important to demonstrate how Mehldau fuses elements of C/D together to create a holistic musical performance. This section examines some of the ways in which Mehldau explores C/D on a spatiotemporal plane. Analysis will be limited to the terms related to C/D defined at the start of the chapter, and references to the field of cognitive psychology will help to elucidate perceived motivation. Parncutt and Hair (2011) note that 'in many traditions of compositional practice, C/D refers not only to a single sonority or interval, but also to a whole passage or piece. Consonance tends to prevail over dissonance, which provides a foil to consonance and is catalytic in creating a (metaphorical) sense of motion' (p. 126).

Huron (2006) defines this metaphorical sense of motion as 'contrastive valence', as 'a conjecture that the hedonic value of an experience is amplified when preceded by a contrasting hedonic state' (p. 412). Huron argues that pleasure can be experienced from music containing contrast: 'I have suggested that the pleasure associated with these responses arises from limbic contrast – a phenomenon I've called contrastive valence. Pleasure is increased when a positive response follows a negative response. While surprise is biologically bad, surprise nevertheless plays a pivotal role in human emotional experience. Surprise acts as an emotional amplifier' (p. 39).

By analysing Mehldau's improvisation it is possible to observe dissonances that, when combined, align with Huron's (2006) model of contrastive valence. Mehldau creates (1) phrases, and (2) musical climaxes, by combining different types of consonance and dissonance. The first half of Table 14 exemplifies likely C/D combinations, and the second half provides specific examples found in Mehldau's oeuvre. The remainder of this chapter discusses examples from Table 14 (including a section detailing potential problems with classification), in order to further develop the C/D analytical model. Chapter 5 contains case studies that analyse complete solos in depth, and Chapter 6 shows how the model can be used to create phrases and solos unique to each performer – solos that adhere to a model of holistic C/D.

Table 14: Types of Contrastive Valence

Type of Contrastive Valence	Holistic C/D
Examples of Crafted Surprises	Vertical Dissonance → Horizontal Dissonance → Horizontal Consonance
	Rhythmic Dissonance (diminishing dispersal/disjunct rhythm) → Rhythmic Consonance
Climactic Example	Vertical Dissonance (single notes, dyads, triads) + Horizontal Dissonance (dissonant melodicism, chromaticism, linear tonality, perceptual dissonance) + Rhythmic Dissonance (metric asynchronicity/shift, temporal density) + Organic Dissonance (harmonic destabilisation)
Contrastive Valence within Mehdau's Lines	
'Tres Palabras' – 2m17s (see Chapter 4.7.1)	H/D (perceptual dissonance) + V/D (single notes and dyad) + R/D (diminishing dispersal) + H/D (chromaticism) → V/C (diagonal consonance) + H/C (perceptual consonance) + R/C
'Sky Turning Grey' – 2m20s (see Chapter 4.7.2)	H/D (linear tonality) + H/D (disjunct melodicism) + H/D (perceptual dissonance) → H/D (chromaticism) + H/C (perceptual easing) → R/C (temporal easing) + H/C (consonant melodicism)
'Nearness Of You' – 3m08s (see Chapter 4.7.3)	H/D (perceptual dissonance) + R/D (expressive variation) + R/D (diminishing dispersal) + V/D + C/D + H/D (chromaticism) → H/C (perceptual easing) + H/D (chromaticism) + V/C → C/C (blues)
'Madrid' – 1m32s (see Chapter 4.7.4)	H/D (chromaticism) + V/D → H/D (chromaticism) + V/D → V/C
'Someone To Watch Over Me' – 6m02s (see Chapter 4.7.5)	H/C (perceptual consonance) + H/D (chromaticism) + V/C (Dia.) → H/D (perceptual

	dissonance) + V/C (diagonal consonance) → H/D (chromaticism) + R/D (expressive variation) + H/C (motif) + H/C (perceptual consonance) → R/C + H/D
‘Elegy For William Burroughs And Allen Ginsberg’ – 3m (see Chapter 4.7.6)	R/D (temporal density) + H/D (perceptual dissonance) + C/C (blues) + H/C (perceptual easing) → R/D (temporal density) + H/D (perceptual dissonance) + V/C (diagonal consonance) + H/D (chromaticism) → H/C (perceptual easing) + R/C (temporal easing) + V/C (diagonal consonance) V/D (dyads) → R/C

4.7.1. ‘Tres Palabras’ – 2m17s

At 2m17s of ‘Tres Palabras’ (*Anything Goes*, 2004), Mehdau plays a line over a V–I in D minor. He combines the use of several dissonances over the A7, which are resolved at the onset of a D minor chord (bar 2). Mehdau employs two successive vertical dissonances: an unprepared b9 (Bb) accompanied by a dissonant dyad (F and G), then a major seventh (G#), followed by a chromatic passage (H/D). He utilises diminishing dispersal (R/D) and perceptual dissonance (H/D) as the line descends to well within tessitural range. At the onset of resolution (Dm7), perceptual, rhythmic, and vertical (diagonal) consonances provide positive valence (see Figure 54).

In addition, cultural dissonance is also achieved through the use of a major seventh played on a downbeat of a dominant chord, A7. In bar 1 of Figure 54, Mehdau plays a G# at beat 3, a structural beat. This is considered both a V/D and a C/D, as it is not only a vertical sensory dissonance, but also a cultural one which does not follow chord/scale norms (see Levine, 1995).

The image shows two staves of musical notation for 'Tres Palabras'. The top staff is in treble clef with a key signature of one flat and a 3/4 time signature. It features a melodic line starting with a whole note G4, followed by a quarter note F#4, and then a triplet of eighth notes: G4, F#4, and G4. The bottom staff is also in treble clef with a 3/4 time signature. It features a bass line starting with a quarter note G3, followed by a quarter note F#3, and then a quarter note G3. Annotations include: 'A7b9' above the first staff; 'V/D' and 'V/D + C/D' above the first two notes of the top staff; 'H/C (PERCEPTUAL EASING - DISSONANCE TO CONSONANCE)' above the triplet; 'R/D (DIMINISHING DISPERSAL)' below the first two notes of the top staff; 'H/D (CHROMATICISM)' below the triplet; 'Dm(MA7)' above the first staff; 'Dm7' above the second staff; and 'V/C (DIAGONAL)' below the first staff.

Figure 54: ‘Tres Palabras’ – 2m17s (see Table 14 for description of contrastive valence)

4.7.2. ‘Sky Turning Grey (For Elliott Smith)’ – 2m20s

In ‘Sky Turning Grey (For Elliott Smith)’ (*Highway Rider*, 2010), at 2m20s, Mehldau combines (H/D) linear tonality (implied C#m7b5 over Cm7b5), with disjunct melodicism (H/D) and a rising passage (H/D) that culminates, and then eases (H/C), with chromaticism (H/D) at bar 3. At bar 4, further consonance ensues with the use of temporal easing and consonant melodicism. To further the sense of resolution, Mehldau quotes the melody at bars 5 and 6 (see Figure 55).

The image shows two staves of musical notation for 'Sky Turning Grey (For Elliott Smith)'. The top staff is in treble clef with a key signature of three flats and a 3/4 time signature. It features a melodic line starting with a whole note G4, followed by a quarter note F#4, and then a quarter note G4. The bottom staff is also in treble clef with a 3/4 time signature. It features a bass line starting with a quarter note G3, followed by a quarter note F#3, and then a quarter note G3. Annotations include: 'H/D (PERCEPTUAL DISSONANCE)' above the first two notes of the top staff; 'H/D (DISJUNCT MELODICISM)' above the first two notes of the top staff; 'H/C (PERCEPTUAL EASING)' above the third note of the top staff; 'Cm7(b5)' above the first two notes of the top staff; 'EbM/Bb' above the third note of the top staff; 'H/D (LINEAR TONALITY)' below the first two notes of the top staff; 'C/C' below the third note of the top staff; 'H/D (CHROMATICISM)' below the third note of the top staff; 'H/C (CONSONANT MELODICISM)' below the first two notes of the bottom staff; 'F7/A' above the first two notes of the bottom staff; 'Bbm7/Ab' above the third note of the bottom staff; 'GbMA7' above the third note of the bottom staff; 'R/C (TEMPORAL EASING)' below the first two notes of the bottom staff; and 'O/C (MELODIC QUOTE)' below the third note of the bottom staff.

Figure 55: ‘Sky Turning Grey (For Elliott Smith)’ – 2m20s (see Table 14 for description of contrastive valence)

4.7.3. ‘The Nearness Of You’ – 3m07s

In ‘The Nearness Of You’ (*Anything Goes*, 2004), Mehldau employs a myriad of dissonances and consonances for contrastive valence. At 3m08s he starts a phrase that uses perceptual dissonance resolving to perceptual consonance throughout Figure 56. Concurrently Mehldau also employs expressive variation (R/D) and diminishing dispersal (R/D) throughout the 3-bar phrase. He increases the temporal density at bar 2, utilising chromaticism (H/D) for added instability. In addition, at bar 2 beat 1 Mehldau plays a C# over Am7 (V/D) (unsupported by his left hand) creating a chromatic appoggiatura to the eleventh (D) of Am7. The phrase concludes with a cultural consonance, a blues cell in F. Playing a major third over a minor chord at bar 2 (albeit implied in this case) is considered to be culturally dissonant, and is a feature found often in Mehldau’s composition and improvisation.

The figure shows two staves of musical notation in treble clef, 3/4 time. The top staff contains a melodic line with notes and accidentals. Above the staff, two brackets indicate 'H/D (PERCEPTUAL DISSONANCE)' from the first two notes and 'H/C (PERCEPTUAL EASING)' from the last two notes. Chord symbols Gm7, C7, Am7, and D7 are placed above the staff. Below the staff, several annotations are present: 'HEAVILY LAID BACK' under the first note, 'R/D (EXPRESSIVE VARIATION)' under the first two notes, 'H/D (CHROM.)' under the third note, 'V/D + C/D' under the fourth note, 'H/D (CHROM.)' under the fifth note, 'V/C' under the sixth note, and 'H/D (CHROM.)' under the seventh note. The bottom staff shows a bass line with notes Gm7 and C7. A bracket below it is labeled 'R/D (DIMINISHING DISPERSAL)'. At the end of the staff, a bracket is labeled 'C/C (BLUES)'. Fingering numbers 5 and 6 are shown under the notes in the top staff.

Figure 56: ‘The Nearness Of You’ – 3m07s (see Table 14 for description of contrastive valence)

4.7.4. ‘Madrid’ – 1m32s

In ‘Madrid’ (*Places*, 2000) at 1m32s, Mehldau combines two contrary chromatic phrases over a G#7b9 chord, while at the same time spelling vertical dissonances of a major seventh over a dominant chord at beats 2 and 3 of Figure 57, resolving to a vertically diagonal consonance at bar 2.

4.7.6. ‘Elegy For William Burroughs And Allen Ginsberg’ – 3m

In ‘Elegy For William Burroughs And Allen Ginsberg’ (*Elegiac Cycle*, 1999), Mehldau employs temporal density/easing and perceptual dissonance/consonance throughout (see Figure 59). He uses a major blues scale in bar 1 (C/C) and prior to resolution in Em, combines an ascending vertical consonance with a descending horizontal dissonance (chromatic), resolving to the third of Em at beat 1 bar 4.

The figure shows a musical score for three staves, annotated with various analytical terms. The first staff (bass clef) starts with a $C_{M(AAS^7)}$ chord and includes annotations for H/D (PERCEPTUAL DISSONANCE), H/C (PERCEPTUAL EASING), and H/D (CHROM.) with a C/C (BLUES) scale. The second staff (treble clef) features a $G_{M(AAS^7)}$ chord and includes annotations for V/C (D), R/D (TEMPORAL DENSITY), H/D (CHROM.), V/C (DIAGONAL), V/D $B^7/F\sharp$, and H/D (CHROM.). The third staff (treble clef) shows a resolution to E_m^7 , D_m^6 , and G^7_{AUG} chords, with annotations for H/D (PERCEPTUAL DISSONANCE), H/C (PERCEPTUAL EASING), V/C , V/D , and R/D (TEMPORAL EASING). Brackets and numbers (3, 5, 9, 6, 6) indicate specific intervals or durations.

Figure 59: ‘Elegy For William Burroughs And Allen Ginsberg’ – 3m (see Table 14 for description of contrastive valence)

4.7.7. Problems concerning Classification of C/D

It is perhaps academically unsound to propose a new analytical framework in jazz without demonstrating practical issues pertaining to potential ambiguity. When transcribing and analysing 10 solos using my method of C/D (see Chapter 5), I found some matters of classification to be the biggest challenge. Huron (2006) argues that some musical expectation exists in the listener that cannot be found in the music (p. 360), and acknowledges Schoenberg’s proposal that events exist in music that aren’t necessarily perceived by the listener.

With this in mind, issues pertaining to the relevance of any analysis of this kind must be addressed. As this exegesis is primarily aimed at informing performance, a central argument for its relevance is that any research that draws information from abstract sources (such as music) for the direct purpose of new abstract conception or genesis is, if undertaken with integrity, a fruitful and valid endeavour. Problems may arise due to the reductive nature of a project such as this, however. While I am aware of such reductive pitfalls I have also trusted in the integrity of my musical experience to help guide me through this practice-directed research, combining rote-based application from this analytical framework with my experience as an improvising musician. After all, the developmental history of improvised music and especially jazz is full of autodidactically directed study (both formal and informal). Something which once was perceived as dissonant can later form part of a culturally consonant vernacular. Consequently, the ‘me’ is an important device in the development of jazz, and as jazz itself is such a young art form, there is still much to discover.

It is hoped that this exegesis will spur further study into both method and perceived motivation to try and explore why improvisers play what they play. as the model presented in this chapter is exciting as it represents a fresh way to explore jazz improvisation and/or composition. It not only outlines the ‘what’ and ‘when’, but also proposes some of the ‘why’. Table 15 lists some of the issues I encountered while analysing Brad Mehldau’s solos; it is not an exhaustive list but is intended to clarify categorical ambiguity.

Table 15: Problems and Concerning Classification of C/D

Problem	Example/Answer
Is a unit a diagonal vertical C/D or a horizontal one? Also, if it is a diagonal vertical dissonance, could it not also be described as a linear tonality?	‘When It Rains’ – bar 17 beat 2: a one beat vertical dissonance spelling Gmaj7#9 over B7/A, using the notes (from top to bottom): D, G, A#, B, D, G, F# (see Chapter 5.9). The line primarily spells out a chord rather than a scale, being primarily vertical in nature with the addition of an A# creating an appoggiatura to B. It could be described as being linear tonality of G major, but this is a moot point; the vertical description describes the superimposition adequately. Any debate on the absolute nature of a phrase is purely academic; the reader is reminded that the aim of analysis of this type is to aid performance.

<p>Is a diagonal vertical dissonance not simply a harmonic destabilisation?</p>	<p>No. A harmonic destabilisation is an alternative chord <i>sequence</i> usually realised by both hands on the piano, a diagonal vertical C/D spells out the notes of only one chord at a time. Harmonic destabilisation has a greater effect to the listener; disruption to the schematic norm causes greater arousal/attention than relatively brief vertical dissonance. It has an effect on the organicism of the work, therefore it is an organic dissonance.</p>
<p>Is the chromatic scale simply a cultural consonance instead of a horizontal dissonance?</p>	<p>As it is a scale and often played as such, chromaticism is a horizontal dissonance; on occasion the chromatic scale may form part of a motif in which case the motivicness may be more salient than the chromaticness. In addition, a chromatic enclosure (F-Eb-E) is considered a cultural consonance more than a chromatic dissonance, as its primary function is to decorate guide tones instead of creating instability via chromaticism. Sometimes a chord sequence is composed containing an ascending/descending chromatic bassline (e.g. Am – Am/G# – A7/G – D/F#); in this case the chromaticism forms part of the harmonic framework and is not a dissonant sonority.</p>
<p>Can a crip also be a motif?</p>	<p>Yes it can. A crip is essentially a motif that is idiomatic to the performer in question (Mehldau), and is stored in the long-term memory of an experienced listener. A crip can be a repeated to be part of a motivic passage played either diatonically or utilising linear tonality; or, if accompanied by both hands, harmonic destabilisation.</p>
<p>Isn't perceptual dissonance and temporal density just a matter of context? Surely what may be a dissonant event in one piece may be a consonant one in another.</p>	<p>Yes, this is indeed the case. Factors such as tempo and style have to be accounted for when considering temporal density. Factors such as the normative range of the solo in general have to be taken into account when deciding whether a phrase should be marked for perceptual dissonance; context plays a big part.</p>

4.7.8. Summary of Holistic Examples/Contrastive Valence

This section has defined contrastive valence, and presented theoretical and examples of consonance and dissonance juxtaposed in the music of Brad Mehldau, as well as exemplifying problems and solutions with regards to classification. This section acts as a precursor to Chapters five and six, aiding the reader towards an understanding of the complex relationships of consonant and dissonant events in Mehldau's music.

4.8. Conclusion

This chapter has defined a collection of musical terms relating to consonance and dissonance largely derived from authors and texts in the fields of musicology and cognitive sciences. Although the terms are largely borrowed from the Western classical tradition, their assembly into a holistic analytical model is my original contribution to the field of jazz musicology. Arguably, this contribution is required due to a paucity of analytical methods available when attempting to understand a performer like Brad Mehldau. Using this model it is now possible to compare divergent musicians by using a common set of tools; for example, it may be observed that Wynton Kelly plays with a higher degree of cultural consonance than Paul Bley. It could also be argued that Keith Jarrett plays using less harmonic destabilisation than Ethan Iverson. A player such as Thelonious Monk is known for his high degree of organic consonance via melody, vertical dissonances via dissonant dyads, and rhythmic dissonance via metric shifts. The possibilities of this model are not simply limited to the music of Mehldau; due to the autodidactic nature of jazz performance there is huge diversity within the field. This is of course what makes the individualism of each player so valuable to the jazz tradition. This model, if applied thoroughly, can situate a performer within cultural and organic contexts as well as detail specific devices that they have in their employ.

Chapter 5. Case Studies

5.1. Introduction to the Case Studies

While the previous chapter was primarily concerned with definitions and examples of individual sonorities, this chapter focuses on selected piano solos of Brad Mehldau. Each case study includes an annotated transcription using an analytical model based on C/D developed in Chapter 4, with observations and conclusions. The case studies will be used as a stimulus for the practice-directed component of the Doctor of Musical Arts (see Chapter 6).

The first eight transcriptions consist of treble staff only with accompanying chord symbols (derived from performance of the in-head). For reasons of markedness, the final two transcriptions use the grand staff to support analysis that cannot be exemplified with a single staff (e.g. harmonic destabilisation and extensive interplay between hands). Heterogenic comping styles will be shown in these final two transcriptions; all other comping is essentially idiomatically generic and can be satisfactorily represented by chord symbols alone.

Table 16 contains a list of abbreviations used as annotations in the transcriptions. It is recommended that the reader become familiar with the acronyms before studying the transcriptions.

Table 16: C/D Analytical Acronyms

Acronym	Description
V/C	Vertical Consonance
V/D	Vertical Dissonance
V/C (D)	Vertical Consonance (Diagonal)
V/D (D)	Vertical Dissonance (Diagonal)
H/C	Conjunct Horizontal Melodicism
H/D	Disjunct Horizontal Melodicism
H/C (M)	Motif (multiple motifs will be labelled M1, M2, M2.1, M2.2 etc.)
H/C (Call)	Call

H/C (Response)	Response
H/D (C)	Chromaticism
H/D (L/T)	Linear Tonality
H/D (P/D)	Perceptual Dissonance
H/C (P/E)	Perceptual Easing
R/C	Rhythmic Consonance
R/C (T/B)	Transformational Beat
R/D (D/D)	Diminishing Dispersal
R/D (E/V)	Expressive Variation
R/D (T/D)	Temporal Density
R/C (T/E)	Temporal Easing
R/D (M/A)	Metric Asynchronicity
R/D (M/S)	Metric Shift
O/C (M)	Melodic Quotes (quote from the head)
O/D (Hy/D)	Hypermetric Dissonance
O/D (Ha/D)	Harmonic Destabilisation
C/C	Cultural Consonance
C/C (B)	Blues Scale
C/C (C)	Crip
C/D	Cultural Dissonance

5.2. ‘Tres Palabras’

‘Tres Palabras’ is a composition written by the Cuban songwriter Osvaldo Farres. Although not as popular as some Cuban compositions (e.g. ‘Quizás Quizás Quizás’, written by the same composer), ‘Tres Palabras’ has become part of the standard jazz repertoire, having been recorded by artists such as Nat King Cole, Kenny Burrell, Coleman Hawkins, Arturo Sandoval and Joe Henderson to name a few. Mehlau included ‘Tres Palabras’ on *Anything Goes* (2004), an album consisting of standards and pop tunes. During the same recording session, the trio also recorded original material that was later released on *House On Hill* (2006). ‘Tres Palabras’ has many characteristics typical of a jazz standard, including a 32-bar

strophe using a 16-bar AB form, 8-bar hypermetric divisions defined by a combination of melodic phrasing, and functional harmonic movement moving between major and relative minor key centres.

Interestingly, Mehldau's improvisation only lasts for one chorus, before the out head returns at 2m57s. Even though this solo is comparatively short, it is conceptually rich, containing many types of C/D described in Chapter 4, and is consequently ideal as an opening study. For the complete transcription see Figures 60 and 61.

TRES PALABRAS TRANSCRIPTION

FROM ANYTHING GOES, BRAD MEHLDAU TRIO, 2004

Figure 60: 'Tres Palabras' Transcription – page 1

TRESPALABRAS/2

16 $\frac{V/D}{R/C (T/B)}$ $\frac{O/C (M)}{C/C (C)}$ $\frac{Em7/A}{V/C}$ $\frac{A7b9}{H/C (P/E)}$ $\frac{V/D}{R/D (D/O)}$ $\frac{V/D + C/D}{H/D (C)}$

19 $\frac{R/C (T/B)}{Dm(maj7)}$ $\frac{O/C (M)}{Dm7}$ $\frac{V/D + C/D}{Dm7/G}$

22 $\frac{R/D (E/V)}{G7\#5}$ $\frac{H/D (C)}{C/C (B)}$ $\frac{G7\#5/C}{H/D (C)}$ $\frac{Cmaj7}{C/C (CMAR)}$ $\frac{Bm7(b9)}{V/C}$ $\frac{E7b9}{H/C (M2)}$ $\frac{O/C (M)}{H/C (M2.1)}$ $\frac{H/D (C)}$ $\frac{H/C (M2.2)}$ $\frac{H/C (P/E)}$ $\frac{H/D (P/D)}$ $\frac{H/D (C)}$

25 $\frac{Em7/A}{H/C (M2.3)}$ $\frac{H/D (C)}{A7}$ $\frac{O/C (M)}{Dm7}$ $\frac{V/D + C/D}{F\#m7(b9)}$ $\frac{H/D (C)}$ $\frac{R/C (T/E)}$

28 $\frac{O/D (H/D)}$ $\frac{O/C (M)}{B7b9}$ $\frac{R/D (E/V)}{Bm7(b9)}$ $\frac{H/D (C)}{E7b9}$ $\frac{V/C (D)}{Am7}$ $\frac{H/D (C)}$ $\frac{H/D (C)}$ $\frac{H/D (C)}$ $\frac{H/D (C)}$

Figure 61: 'Tres Palabras' Transcription – page 2

5.2.1. Observations

Even though Mehdau's solo only lasts for one chorus, it is conceptually rich, containing most elements of C/D defined in Chapter 4, including vertical (both culturally consonant and dissonant), horizontal (motif, chromaticism, linear tonality, perceptual dissonance and easing), rhythmic (diminishing dispersal, expressive variation, temporal density) and organic

elements (melodic quotes and hypermetric dissonance), with some cultural consonances (CMAR lick, blues, half-whole diminished scale). By considering each hypermetric unit it is possible to examine his improvisational strategy more clearly (see Table 17).

Table 17: C/D Relationships Grouped into Structural Hypermeter

Bars 1–8	O/C (M) → O/C (M) + H/D (C) + R/D (E/V) → V/C → H/C (M) + C/C → H/D (P/D) + O/C (M) → H/C (P/E) → H/C (M) + C/C + R/D (E/V)
Bars 9–16	H/C (M) + O/D (Hy/D) → O/C (M) + H/C (M) → V/C (D) + H/C (M) + H/D (P/D) + R/D (E/V) → V/D + H/D(C) + H/C (P/E) → V/C → R/D (T/D) + R/D (E/V) + R/D (D/D) + H/D (L/T) + H/D (P/D) → H/C (P/E) + H/D(C) → R/C (T/B) + C/C → R/C (T/B) + R/C (T/E) + C/C (C) → O/C (M)
Bars 17–24	V/C → V/D + C/D + R/D (D/D) + H/C (P/E) + H/D (C) → R/C (T/B) + V/C → H/C → R/D (T/D) + R/D (E/V) + C/C (B) → H/D (C) → C/C → V/C → H/C (M) + H/D (P/D) → H/C (M) + O/C (M) + H/D (C) + H/C (P/E)
Bars 25–32	O/D (Hy/D) + R/D (T/D) + H/C (M) → H/D (C) → V/C → V/D + C/D → H/C → H/D (C) + O/C (M) → R/D (T/E) → O/C (M) → R/D (E/V) + H/D (C) → V/C (D)

Legend:

+ = concurrent events

→ = subsequent events

bold/non-bold typeface = visual aid to help highlight grouping

At bars 1–2 Mehlau begins his solo with an organic consonance by way of a rhythmically active version of the melody (a single held E). As a contrast to the initial improvisational gambit, at bar 3 he plays a phrase beginning on F (another note from the melody and organic consonance); this phrase contains an ascending and descending chromatic line (horizontal dissonance) and expressive variation (rhythmical dissonance) by laying back on the beat during the bar. Contrastive valence and hyper-dissonance created by combining organic consonance, chromaticism, and expressive variation is followed by a vertical consonance (a diagonal descending arpeggio) at the end of bar 3, before the phrase concludes with an anapaestic motif (M1) built on a culturally consonant chromatic enclosure (bar 4, beats 1–2).

At bar 5 Mehl dau begins with another organic consonance by way of a melodic fragment; this is combined with perceptual dissonance/easing as the diatonic line ascends (supported with dense block chord accompaniment) then descends from bars 5–7. At bar 7 beat 1, M1 is restated using the culturally consonant G half-whole diminished scale.

At bar 9 the next hypermetrical unit begins with hypermetric dissonance by way of a reiteration of M1 every bar for three bars. This is combined with organic consonance via melody at bar 10 and vertical consonance via an arpeggio at bar 11. Perceptual dissonance increases at bar 11 as the line ascends then decreases at bar 12 as the line descends. Two vertical dissonances (unprepared and accented b9, and p4 respectively) are heard at bar 12 (beats 1, and 2), and combined with descending chromaticism (horizontal dissonance) at beat 2. At bar 13, rhythmical hyper-dissonance is formed from a combination of temporal density (bars 13–14), expressive variation (bar 13), and diminishing dispersal (bars 13–14). Perceptual dissonance/easing is created during bars 13–14 with an ascending then descending line; this is combined with further horizontal dissonance by way of linear tonality during bars 13–14 (B Lydian and Bb harmonic minor) and chromaticism (bar 14 beat 4). These dissonances are resolved at bar 15 with a rhythmically consonant transformational beat (beat 1), temporal easing and cultural consonances (chromatic leading tones [beats 2 and 4]). The hypermeter concludes with a crip (stabs) followed by an organic consonance (melody) during bar 16.

Bars 17–24 begin with a melodic quote (using a 2-beat pickup from bar 16) and a diagonally vertical consonance (bar 17). As discussed in Chapter 4.7.1, Mehl dau then plays a line over a V–I in D minor, combining several dissonances over A7, which are resolved at the onset of the D minor chord (bar 19). These dissonances are two successive vertical dissonances (an unprepared b9 [Bb] then a major seventh [G#]), the first of which is supported with a dissonant dyad, followed by a descending chromatic passage (H/D). In addition, Mehl dau uses diminishing dispersal and perceptual easing as the line descends. Cultural dissonance is also achieved through the use of a major seventh played on a downbeat of a dominant chord, A7 (bar 18 beat 3). At the onset of resolution (bar 19), perceptual (H/C), rhythmic (T/B) and vertical (D) consonances provide positive valence. A 6-beat rest then occurs (bar 20 beat 3–bar 21 beat 4), this rest provides anticipation (see Huron, 2006, p. 328) before the most dissonant phrase of the solo sounds from bar 22 to bar 27; this phrase essentially culminates the solo employing temporal density, perceptual dissonance to perceptual easing, motif,

chromaticism, expressive variation, and hypermetric dissonance (from bar 25) as the phrase extends two bars beyond the hypermetric division.

The last 8 bars of this solo begin with hypermetric dissonance (from a phrase beginning at bar 22). Perceptual easing ensues from bar 24 beat 3, as an ascending motif started on bar 23 beat 3 descends, moving into a chromatic passage at bar 25. This is followed by a vertical consonance (bar 25 beat 4), then a vertical dissonance (with cultural dissonance) on the downbeat of bar 26, as a major third (F#) is spelt over a D minor chord. Then a horizontal consonance followed by a horizontal chromatic dissonance occurs (combined with an organic melodic consonance), and temporal density eases at bar 27. The solo concludes with a melodic quote at bars 28–29 followed by a phrase using expressive variation, descending horizontal dissonance, and a vertical consonance (bars 30–31).

5.2.2. Conclusions

In ‘Tres Palabras’, Mehldau refers to the melody and uses motif throughout the solo. He uses expressive variation (often during cadential anchors to increase salience) but also employs temporal density and diminishing dispersal for arousal/attention. Mehldau combines rhythmical dissonances (expressive variation combined with diminishing dispersal and temporal density) to form a rhythmic hyper-dissonance (bars 13–15). Perceptual dissonance and temporal density aren’t mutually exclusive, however greater arousal/attention is accomplished when both are employed (e.g. bar 13). Mehldau uses more vertical dissonance (both culturally consonant and dissonant) during the second half of the solo, and not at all during the first quarter. He uses hypermetric dissonance during the culmination of the solo and combined with motif during the initial half of the solo. Mehldau uses chromaticism as part of a motif (e.g. bars 24–25) and also as a descending horizontal bridge between sonorities (e.g. bar 18). He uses rhythmic consonances (stabs or transformational beats) to resolve dissonance (e.g. bars 15–16). He also uses excerpts of the melody as positive valence after hyper-dissonances (e.g. bars 16–17 after bars 13–16). Mehldau improvises in waves, beginning with relative consonance, and building dissonant layers to a small climax (bars 13–16). Consonance is restored (bars 17–21) before the final climax (bars 22–26). Small segments of cultural consonances can be found throughout the solo, for example major blues scale (bar 22), altered scale/CMAR (bar 22), and the occasional use of the bebop language (bar 4).

5.3. 'Secret Beach'

'Secret Beach' is a composition by Brad Mehldau, originally written for *Quartet* (Metheny/Mehldau, 2007), a collaborative album he made with Pat Metheny. The transcription below (see Figures 62–64) is from *Live* (Mehldau, 2008), a trio recording with Jeff Ballard and Larry Grenadier. 'Secret Beach' is split into two 32-bar sections, each containing four 8-bar hypermetric divisions totalling 64 bars. During the recording, Mehldau only improvises for 56 out of 64 bars, returning to the out-head for the remaining 8 bars. After the out-head, Mehldau employs an improvisational outro from 6m09s–11m20s based on an 8-bar vamp (see Chapter 4.5.4 for details); the outro is considerably more adventurous and dynamic than the solo, however I have chosen to analyse the solo section as it contains unique C/D juxtapositions. Perhaps Mehldau's most seminal vamp-based improvisation is 'River Man' (*AOT5*, 2001); 'River Man' will be studied in depth in Chapter 5.11. In compositional terms, Mehldau combines the use of functional harmony with economical bass movement, often ascending or descending in intervals of major or minor seconds.

5.3.1. Observations

After an organic consonance (bar 1) and a conjunct horizontal gambit lasting for two bars (bars 1–2), at bar 3 beat 3, Mehldau quotes from the melody of 'Secret Beach' (see Figures 62–64), playing a melodic cell descending a minor seventh, ascending a minor third, and finally descending a semitone. This section of the melody forms a motivic cell that is repeated throughout the solo. At bar 4 beat 4–bar 5 beat 1 Mehldau compresses his initial melodic fragment into an anapaestic grouping of two semiquavers descending a seventh, followed by a held note, up a minor third. This anapaestic motif (M1) is played again at bar 7 (albeit using a smaller inverted intervallic leap), and also at bar 9 (although by this time it can only be recognised purely on its anapaestic quality). At bar 11 Mehldau combines disjunct melodic material with vertical dissonances (beats 1 and 3) and at beat 4, M1 is heard once again. After a vertical dissonance (bar 12 beat 3) and space, M1 is stated again in both bars 14 and 15 (occurring at beat 4 on both occasions). After a brief harmonic anticipation (H/D [L/T]) to Bb major at bar 16 beat 4, M1 is played again at bar 17 beats 2–3 and again at bars 24, 25, 26, 27, 28 and 29. Bars 21–22 contain a contrastive phrase utilising diminishing dispersal, expressive variation, blues and vertical dissonances. Mehldau finishes the first 32 bars with a quote from the melody and a 6-beat rest.

SECRET BEACH TRANSCRIPTION

FROM LIVE, BRAD MEHLOAU TRIO, 2008

The transcription shows the following chord voicings and annotations across the staves:

- Staff 1 (Measures 1-4):** Am7 (H/C), E7/G# (H/C (M1)), Gm7 (H/C (M1.1)), D7/F# (H/C (M1.1)).
- Staff 2 (Measures 5-8):** Bm7b5 (V/O), E7b9 (V/O), Fmaj7b9 (H/O (C)), C/C (H/C (M1.2)), F#dim7 (H/O (C)).
- Staff 3 (Measures 9-12):** Cmaj7/G (H/C (M1.3)), G7 (H/O), E7/G# (V/O), Am (H/C (M1.4)), Am (V/O).
- Staff 4 (Measures 13-16):** D7 (H/C (M1.5)), F7/Eb (H/C (M1.6)), A7sus/E (H/O (L/T) + C/C), A7sus, A7.
- Staff 5 (Measures 17-20):** Bbmaj7 (H/C (M1.7)), Bdim7 (C/C), Fmaj7b9/C (C/C), Am/C, D7.
- Staff 6 (Measures 21-24):** Ebdim7 (R/O (E/V), R/O (O/O)), A7/E (C/C (B)), D7/F# (H/C (M1.8)), G7sus.

Figure 62: 'Secret Beach' Transcription – page 1

SECRET BEACH/2

The score is divided into several systems of staves:

- System 1 (Measures 25-36):**
 - Staff 1 (Measures 25-36): Chords: $A_{maj7}/G\sharp$, C_{maj7}/G , $C7/G$, F_{m7} , C_{m7}/E_b , $H/C (M1.12)$. Harmonic functions: $H/C (M1.9)$, $H/C (M1.10)$, $H/C (M1.11)$, $H/O (C)$, V/O .
 - Staff 2 (Measures 29-36): Chords: $D7$, $E7\sharp5$, $O/C (M)$, F_{maj7} , $G7_{sus}$. Harmonic function: $H/C (M1.13)$.
 - Staff 3 (Measures 33-36): Chords: A_m , $E_{13}/G\sharp$, G_{m7} , D_b7/F , $C/C (B)$. Harmonic functions: H/O , $H/O (L/T)$, V/O .
 - Staff 4 (Measures 37-40): Chords: $B_b_{m7}b5$, E_b7_{ALT} , $H/C (M1.14)$. Harmonic functions: H/O , $O/C (M)$.
 - Staff 5 (Measures 39-40): Chords: $H/O (P/O)$, $E_{\Delta7}(\sharp11)$, D_b7/F , $H/C (P/E)$.
- System 2 (Measures 41-44):**
 - Staff 6 (Measures 41-44): Chords: E_b7/G_b , C_m/G_b , $G7\sharp11$, $G\sharp_m7b5$, $D7/A$, $C/C (B)$. Harmonic functions: $H/O (C) + H/C (M2)$, $H/O (C) + H/C (M2.1)$, V/O , V/O , V/O .

Figure 63: 'Secret Beach' Transcription – page 2

SECRET BEACH/3

Figure 64: ‘Secret Beach’ Transcription – page 3

Mehldau combines disjunct melody and blues in the opening phrase at bars 33–34, followed by a 7-beat rest. The next phrase at bar 36 uses linear tonality, spelling Cm over Db7, followed by a vertical dissonance and further disjunct melodicism that ends with a blues-based phrase at bar 36 beat 3–bar 37 beat 1. After a triplet-based disjunct figure (bar 38 beat 2), Mehldau returns to M1 at bars 38 (beat 4) and 39 (beat 4). As the motif is played on a lower octave, perceptual dissonance is created, which is then resolved using an ascending Db7#11 scale. At bar 42 beat 2 Mehldau employs a turn (and chromaticism) to form the basis of a new motif (M2) which is repeated at bar 43 beat 2, followed by another instance where he combines vertical dissonance, disjunct melodicism, and blues at bar 44. Mehldau employs call and response during bars 45–46 with a single note rhythmically identical to a subsequent melodic quote heard at bar 47 beat 1. This melodic quote morphs into a crip (bars 47–48), similar to a phrase heard in ‘Dusty McNugget’ (*Largo*, 2002) at 2m20s (not documented in

Chapter 4.6.3: Crips). Mehldau uses 4-note groupings and enclosure over C major at bar 49, followed by as vertical consonance and two more occurrences of M1 at bars 50–51. At bar 53, Mehldau returns to M2 prefixing four bars of temporal density, used to aid climax via contrastive valence. To accompany this rhythmic dissonance, linear tonality via anticipation is heard at bar 54 beat 4; additionally, the solo culminates at bar 54 beat 3 to bar 56 with a tactus-placed descending compound melody from F#, E, D, C that ascends to a melody note E at the beginning of bar 56. This compound melody is accompanied by crip 6 at bar 55 (see Chapter 4.6.3), before the solo finishes with a melodic phrase comprising of organic and rhythmic consonances at bar 56.

5.3.2. Conclusions

Mehldau regularly combines vertical dissonances (dyads) with disjunct melodicism (e.g. bars 11–12, 36, 44), often with the addition of blues material. Mehldau either refers directly to the melody (e.g. bars 3 and 47) or uses segments of melody to form motivic sequences (e.g. bars 24–27). Mehldau seldom uses rhythmic dissonance in this solo, only utilising diminishing dispersal on one occasion (bar 21–22), a short sequence of temporal density (bar 53–55), and some expressive variation (e.g. bar 54). Use of blues material is fairly widespread; examples are bars 22, 33–34, 36–37, 44 and 46. Other cultural consonances are used such as anticipation (bars 16 and 54), enclosure (bars 7, 9, 19, 49), and crips (bars 47 and 55). Mehldau uses perceptual dissonance only at bar 39–40. A sense of climax is achieved to a limited degree by employing temporal density (bars 54–55), combined with motif and largely consonant material. In the broadest of terms, this is a static solo heavily relying on the combination of melody, motif, disjunct melodicism, blues material, and vertical dissonance.

5.4. ‘Sky Turning Grey (For Elliott Smith)’

Mehldau composed ‘Sky Turning Grey (For Elliott Smith)’ (*Highway Rider*, 2010) for an originals album released in 2010. The album is his second collaboration with producer Jon Brion (the first being *Largo*, 2002), and like *Largo*, Mehldau chooses to deviate from his stalwart rhythm section and trio format. Matt Chamberlain’s relaxed drum grooves, combined with Larry Grenadier’s pulse-like bassline create a backdrop for the theme, a lament for songwriter Elliott Smith (1969–2003). Joshua Redman plays the head, a haunting, horizontal, motivic melody with occasional blues overtones. Some of the supporting harmony is played

on pump organ (overdubbed by Mehldau) during studio sessions recorded in 2009 (see Figures 65–67).

SKY TURNING GREY (FOR ELLIOT SMITH) TRANSCRIPTION

FROM HIGHWAY RIDER, BRAD MEHLDAU, 2009

The transcription is presented in a single system of seven staves. Section A (measures 1-15) begins with a key signature of three flats and a common time signature. It features a series of chords: Bbm7/Ab, Gbmaj7, Dbmaj7/F, Eb7, Ebm7/Db, Cm7(b5), Ebm7/Bb, F7/A, Dbmaj7/Ab, Gbmaj7, Dbm7/F, Eb7, Bbm7/Db, Cm7(b5), Ebm7/Bb, F7/A, Dbmaj7/Ab, G7alt, Gbm7, Cm7(b5), V/D, Ebm7/Bb, F7/A, Dbmaj7/Ab, G7alt, Gbm7, Cm7(b5), C7+, F7, F7/Eb, Gbm7(#11)/Db. Section B (measures 16-32) continues with: F7/C, Bbm7, Bb7, F#m9/A, Ab+7. The score includes various voicing and articulation markings such as 'o/c (M)', 'H/C (M1)', 'H/C (M1.1)', 'V/D', 'C/C (M)', 'C/C (S)', 'R/D (E/V)', 'H/D (L/T)', 'H/D (P/O)', 'H/C (P/E)', 'H/C', 'H/D (C)', 'V/D', 'H/D', 'C/C', 'V/C', 'C/C (S)', 'O/C (M)', 'C/C (S)', 'R/D (E/V)', 'R/D (E/V)', 'O/C (M)', '8vb', and '3'.

Figure 65: ‘Sky Turning Grey (For Elliott Smith)’ Transcription – page 1

SKY TURNING GREY/2

The transcription shows the following chord voicings and annotations across the staves:

- Staff 1: Gbm7, C#m7/E, R/D (E/V), D7(#11), Ebm7/Db, Cm7(b5). Annotations: C/C (B), O/C (M).
- Staff 2: Ebm7/Bb, Dbmaj7/Ab, Db7/Ab, Gbmaj7, Bb7/F, Eb7. Annotations: C/C (PENTATONIC).
- Staff 3: Gbmaj7/Db, Cm7(b5), Bb7, R/D (E/V), Db7/Ab, Gbmaj7. Annotations: H/C (M2.2), R/C, H/D, V/C, H/C (M3), H/C (M3.1).
- Staff 4: F7(b9), C#m7/E, D7(#11), Ebm7/Db, Cm7(b5). Annotations: H/D (C), C/C (B), O/C (M).
- Staff 5: Gbmaj7/Bb, Dbmaj7/Ab, Gbmaj7, Dbmaj7/F, Eb7. Annotations: O/C (M), V/D, R/D (O/O), H/C (M3.2).
- Staff 6: Ebm7/Db, Cm7(b5), F7, Bbm7/Ab, Cm7(b5). Annotations: O/C (M), C/C (C).
- Staff 7: Gbmaj7, Dbmaj7/F, Eb7. Annotations: C/C (C), H/D (C) + R/D (M/S).
- Staff 8: Ebm7/Db, Cm7(b5), Ebm7/Bb, F7/A, Dbmaj7/Ab. Annotations: H/C, C/C (B), V/D, H/C.

Figure 66: 'Sky Turning Grey (For Elliott Smith)' Transcription – page 2

SKY TURNING GREY/3

The musical score for 'Sky Turning Grey' (For Elliott Smith) is presented in seven staves. The key signature is Bb minor/Db major. The time signature is 7/8. The score includes measure numbers 74, 77, 79, 83, 87, 89, and 95. Chord voicings are labeled with letters like C, H, V, R, O, M, S, A, and numbers like 1, 2, 3. Some chords are marked with an 'A' above them. The score shows a complex harmonic structure with frequent changes and some generalizations.

Figure 67: 'Sky Turning Grey (For Elliott Smith)' Transcription – page 3

The form of this composition is 64-bar AABC, where B and C share the same melody but are supported by different changes. The key fluctuates regularly between Bb minor and Db major, with some cyclical-based deviation (of fourths/fifths). What is most apparent is the

almost constantly descending bassline that is spelt out by Mehldau's harmonic choices, largely a mixture of diatonic chords with some tritone substitution and harmonic prolongation. An example of prolonged harmony can be found at bars 14–17, where a II–V–I is played in Bb minor, however an Ebm/Bb extends the C half-diminished sonority for another bar, before F7 at bar 16.

5.4.1. Observations

The first 16 bars of Mehldau's solo start with an excerpt from the melody (bar 0), followed by a motivic development drawn from the rhythm of the initial melodic statement (bars 1–2). Vertical dissonances can be found at bar 4, as Mehldau plays an unprepared sharp ninth followed by a perfect fourth over an Eb7. Consonance is restored in bars 6–13 with melodic and blues material; the first A section culminates with the combined use of dissonances at bars 14–15, as Mehldau employs sidestepping to spell C# Locrian #2 over a Cm7b5 chord (as opposed to C Locrian #2), followed by a cultural consonance via enclosure at bar 15 beat 1 then a horizontal dissonance via a descending chromatic line at bar 15 beats 2–4. The *outside* nature of this line is heightened with rhythmical dissonance, as Mehldau uses expressive variation (straightening the swing feel), and perceptual dissonance and easing, heightening arousal/attention.

The second 16 bars of 'Sky Turning Grey' start with conjunct improvisation and melodic statements (bars 17–19), followed by a chromatic (H/D [C]) and vertical (V/D) dissonance (bars 20–21), disjunct melody and vertical dissonance (bar 22), and finish with a largely consonant passage containing vertical, blues, diatonic, and melodic sonorities. Expressive variation is employed at bars 24–26 (laid back), and bars 28–30 as Mehldau plays straight quavers.

Section B (bars 33–48) contains more melodic material (bars 33–34, 40–42), conjunct improvisation (H/C) at bars 35–36, blues (bars 37–38, 45), motif (bars 45–47), and cultural consonances such as a Bb minor pentatonic phrase (bars 42–44). With the exception of a small laid-back segment (bar 38) there are almost no dissonant devices.

Section C (bars 49–64) begins with the combination of horizontal dissonance (disjunct melodic line), a vertical dissonance (beat 1 bar 49) and expressive variation (bars 49–50) straightening a quaver passage. A motif consisting of an ascending horizontal 4-note cell followed by a vertical descending 4-note cell is played at bar 50, and developed at bar 51.

This is succeeded by chromaticism (bar 52), then blues material (bars 53–54) and a prolonged melodic passage from bar 55 to bar 60. At bars 61–64 Mehdau uses the motif (M3) heard at bars 51–52, combining it with diminishing dispersal (and beginning with a vertical dissonance at bar 61 beat 1), concluding the first chorus of this solo with increased arousal/attention.

Mehldau references the melody, combining it with a triplet figure at bars 65–66, followed by a phrase combining chromatic horizontal dissonance with a rhythmical metric shift (groups of four triplets implying a new tactus) at bars 68–69. This is followed by conjunct melodicism using romantic-like sixth leaps (bar 69), a blues figure (bar 72), and a set of syncopated stabs (bars 73–74). At bar 74, Mehdau uses linear tonality spelling notes from G major (instead of Gb major) and this dissonance is followed by a vertical and cultural dissonance with the use of a D (b9) over a Db major chord at bar 75, quickly resolved to the diatonic norm with horizontal consonance, resolving to G, the major third of Eb7. At bar 77 he spells G major diagonal ascending vertical harmony over a Bb chord, resolving the harmonic tension via a descending chromatic passage to more diatonic improvisation until bar 80. At bar 77 Mehdau uses temporal density to increase dissonance, combined with some expressive variation at bar 80.

A strong transformational beat is heard in bar 81 beat 1, with two stabs followed by brief temporal easing from bar 81 to bar 86. At bar 87 Mehdau increases temporal density with a semiquaver-based Lydian ascending passage on A, a tritone away from Ebm7, before resolving rhythmic and harmonic dissonance with a line derived from Bb harmonic minor (using harmonic generalisation). From bar 89, Mehdau eases temporal density and plays blues-based and melodic material for the remainder of his solo.

5.4.2. Conclusions

Mehldau uses many organic melodic references in ‘Sky Turning Grey’ (e.g. bars 6–7, 10–11, 16–18, 24–26, 32, 40–42, 55–60). He also employs cultural norms such as sideslipping, pentatonics, harmonic generalisation, and extensive use of the blues. Mehdau uses many of the dissonances that he has within his employ including vertical, horizontal and rhythmical, and he often combines dissonances to create hyper-dissonances (e.g. bars 14–15). Mehdau employs temporal density to aid the climax of his solo, and chooses either to (1) maintain C/D relationships within each hypermeter, neither increasing nor decreasing arousal/attention

(e.g. bars 33–48), or (2) build arousal/attention during the end of each section of the form (e.g. bars 61–64).

Mehldau often precedes hyper-dissonances with rests (e.g. bars 76 and 86); the lack of activity found in bars prior to hyper-dissonant activity helps the perceived salience of the phrase (see Huron, 2006, p. 328). One of the most distinct features of this solo is the fact that Mehldau uses strong vertical and horizontal dissonances very early on; it could be argued that Mehldau's normative improvisational concept involves more consonant phrases at the beginning of his solo, but in 'Sky Turning Grey' clear examples of early dissonance can be found (e.g. bars 4, 14, 20–21).

5.5. 'Blame It On My Youth'

'Blame It On My Youth' is a jazz standard written by Oscar Levant and Edward Heyman in 1934. The transcription shown in Figures 68–70 is from *AOTI 1* (1995). It is in Eb major and consists of a 32-bar AB form (split into four 8-bar hypermetric sections) containing diatonic and functional harmony. This version is performed as a ballad with Larry Grenadier on bass and Jorge Rossy on drums, and Mehldau solos for almost one chorus before returning to the head/coda. 'Blame It On My Youth' is the oldest case study in this chapter; released in 1995 it exemplifies Mehldau during his early career.

5.5.1. Observations

Mehldau begins by utilising a pickup measure into bar 1 of the form, by playing a phrase based on a melodic dyad using the half-whole diminished scale. At bar 2 beat 2 Mehldau plays a 2-beat motif (M1) consisting of an ascending scale followed by a descending leap to two stabs (see Chapter 4.6.3); M1 is repeated at bar 3 beats 1–2. At bar 4 beats 1–2 a new motif (M2) is heard, consisting of a horizontal line descending then ascending over two beats; M2 is repeated at bar 4 beats 3–4 and bar 5 beats 1–2. After a brief cultural consonance, at bar 6 Mehldau rests for three beats creating expectation before a long, rhythmically dense, perceptually fluctuating phrase is heard descending an octave from Ab (using F harmonic minor), ascending through F Dorian, descending via 2 chromatic passages, and ascending using harmonic destabilisation over Bb7 (see Chapter 4.5.3) before he uses chromaticism to link into a consonant phrase at bar 8. The hypermeter concludes at bars 8–9 with vertical consonance followed by chromaticism (bar 8 beat 1), followed by a 2-beat motif (M3) with stabs heard at bar 8 beats 3–4 and bar 8 beat 4 to bar 9 beat 2.

The next hypermeter (bars 10–17) begins with a 2-beat pickup phrase based on Eb super Locrian (a cultural consonance), followed by M1, repeated from bar 2 beats 3–4 and bar 3 beats 1–2. At bar 12 (after a 6 beat rest), Mehldau uses a disjunct melodic opening statement, combined with a vertical dissonance (and cultural dissonance as a major seventh is spelt over a dominant chord) to create contrastive valance when preceding a consonant descending arpeggio at the end of beat 3.

BLAME IT ON MY YOUTH TRANSCRIPTION

FROM AOT1, BRAD MEHLDAU TRIO, 1995

Figure 68: 'Blame It On My Youth' – page 1

BLAME IT ON MY YOUTH/2

13

14

15

17

18

20

Figure 69: 'Blame It On My Youth' – page 2

BLAME IT ON MY YOUTH / 3

The musical score consists of six staves of music in a 3/8 time signature, with a key signature of two flats (Bb and Eb). The score is annotated with various chord symbols and harmonic analysis labels:

- Staff 1 (Measures 23-24):** Chords include Fm7, H/C (M7.4), Bb7, H/C (M7.5), Ebmaj7, and Cm7.
- Staff 2 (Measures 25-26):** Chords include Bbm7, H/C (P/E), H/D, V/D, H/D (C), R/D (T/D), Em7, A7, and O/D (HM/D) - Eb7.
- Staff 3 (Measures 26-27):** Chords include Abmaj7, Bb7/Ab, C/C, and H/C (M8).
- Staff 4 (Measures 27-28):** Chords include V/C (D), Gm7(b9), C7, H/C (M8.1), Fm7, and Bb7.
- Staff 5 (Measures 29-30):** Chords include G7, C7, Fm7, and Eoim7.

Additional annotations include rhythmic markings such as '5' and '3' over notes, and 'H/C' (Horizontal Consonance) labels indicating specific harmonic relationships.

Figure 70: ‘Blame It On My Youth’ – page 3

In holistic terms, Mehldau combines vertical and horizontal dissonances with rhythmic density (bars 12–14), a horizontal consonance via M4 (bar 13), and perceptual fluctuation (bars 12–16), before easing dissonances using romantic and ‘classical’ melodic elements (a turn, a chromatic compound melody [M5], and large leaps) that end at bar 16. Mehldau completes the hypermeter starting with M2.3 and M2.4 (bar 15 beat 4 and bar 17 beat 2), succeeded by an ascending horizontal passage derived from a Bb7 half-whole diminished scale (with the addition of Eb, a culturally dissonant natural fourth) and followed by a

vertically dissonant culturally consonant descending arpeggio (Gb major over Bb7, i.e. Gb7#5#9). Due to the increased temporal density and perceptual dissonance during the phrase at bar 17, a transformational beat is heard re-establishing consonance at the beginning of bar 18.

The next hypermetric section (bars 18–25) begins with a motif (M6) derived from the melody of ‘Blame It On My Youth’ at bar 18 beat 4. This motif is repeated twice and ascends creating perceptual and rhythmical dissonance (temporal density and a brief metric shift) before another transformational beat is sounded at bar 20 beat 1. From bar 20, a motif (M7) consisting of a small descending interval followed by a larger ascending interval (e.g. bar 21 beat 3) is played and repeated for 5 bars until bar 24. This motif is also romantic in nature, employing chromatic melodic shape with larger leaps. The hypermetric section concludes with another example of Mehldau using space to create expectation before a hyper-dissonance is sounded. At bar 25 Mehldau combines perceptual easing, chromaticism, disjunct melodicism, harmonic destabilisation (Em7–A7 instead of Eb7), and temporal density in a descending phrase that descends in bar 25, then ascends using consonance before temporally easing during bar 26 beat 3. This solo is concluded with motivic material (M8) at bar 27 combined with a vertical dissonance (bar 27 beat 1) and a return to the melody at bar 30.

5.5.2. Conclusions

This solo was recorded early on in Mehldau’s career and it is markedly different to the other case studies. For example, more cultural consonances can be found (e.g. bars 1, 6, 9, 17 and 25); Mehldau also uses stabs extensively (e.g. bars 2, 3, 5 and 9), although these are not always placed on a downbeat. He refers to the melody less in this solo, but uses motivic consonance regularly (e.g. bars 2–5, 10 and 19) and his improvisation also contains a marked amount of romantic melodicism (bars 14–15 and 21–24). Mehldau employs the use of space for several beats before hyper-dissonances (e.g. bars 6, 11, 16, and 24), which often begin with perceptual easing (e.g. bars 12, 6 and 25). Even this early in Mehldau’s career there is still evidence of vertical dissonance combined with cultural dissonances (e.g. bar 12), even when a phrase is relatively consonant (e.g. bar 27 beat 1). Even though Mehldau uses pickup measures that break hypermetric phrasing, there is no hypermetric dissonance, as the phrases aren’t considered long enough to be breaking organic schema.

5.6. 'Highway Rider'

'Highway Rider' is a composition from the 2010 album of the same name and the recording consists of bass, drums and pump organ (overdubbed). 'Highway Rider' is played in a 'drum and bass' style, with Matt Chamberlain (drums) providing a rhythmically dense backdrop to Mehlau's contrastingly slow-paced melodic and harmonic framework. A melody that is largely syncopated and horizontal is supported by harmony developed and transposed from an initial diatonic harmonic gambit Cm7–Ebmaj7/Bb–Abmaj7–Abmaj7. In terms of form, the intro is 8 bars long followed by an ABAC strophe; all sections are 24 bars in length with the exception of C, which is extended by 4 bars to 28. Unusually, the groove is broken during the last 8 bars of each section, as the bass and drums drop out; Mehlau chooses to solo for the ABA before returning to the head at the beginning of section C.

5.6.1. Observations

The initial 24 bars of Mehlau's solo (see Figures 71–74) in 'Highway Rider' begins with a 2-bar motif (M1) played using a 1-bar pickup into the beginning of the form, lasting 2 bars (bars 1–2). After an organic consonance and the use of space, M1 is played again at bars 5–6 and is characterised by a horizontal passage followed by a descending perfect fifth, ending with a 3-note rhythmic suffix. At bar 8, a second motif (M2) consisting of three quavers followed by two semiquavers is stated then answered in a quasi-antiphonal manner at bar 9; M2 juxtaposes three vertical dissonances (flat nine and major third over Fm7, and a G triad anticipating G7 in the next bar) with horizontal consonance with the use of motif. A fragment of melody is played at bars 10–12, before a fragment of the second motif is stated again at the end of bar 12. At bar 13 horizontal dissonance (linear tonality) is created via a line (pushed forward using expressive variation) anticipating A major, the succeeding chord at bar 14. At bar 15 a reference to the melody is played before a 2-bar metrically asynchronous passage is stated during bars 16–17. This rhythmically dissonant passage is supported with consonance by way of a descending compound melody (descending F major scale) from bar 15 beat 2 to bar 17 beat 1. M3 precedes a stabilising transformational beat at the beginning of bar 18. The A section of this solo finishes with 8 bars without the groove and during this time Mehlau combines horizontal consonance by way of M3 with additional vertical dissonances (bar 19 beats 1 and 3, bar 20 beat 1, bar 21 beat 3), resolving to diatonic statements and M2 during bars 22–25.

HIGHWAY RIDER TRANSCRIPTION

FROM HIGHWAY RIDER, BRAD MEHLDAU, 2010

The transcription shows the following chord voicings and annotations across the staves:

- Staff 1: H/C (M1), A Cm7
- Staff 2: Ebmaj7/Bb, AbΔ7(#11), O/C (M), H/C (M1.1)
- Staff 3: Ebmaj7/G, Gboim7, H/C (M2), Fm7, V/D, V/D (D)
- Staff 4: H/C (M2.1), G7, CΔ7(#11)/E, O/C (M), Bbm7
- Staff 5: Eb7, R/D (E/V), 8vb, Abmaj7, Amaj7/C#, 3
- Staff 6: GM7, H/C (M2.2), H/C (COMPOUND MELODY), O/C (M), F#m7, 3, F7, 3, R/D (M/A), H/C (M3)
- Staff 7: Bbm7, 3, Dbmaj7/Ab, 3, Gbmaj7, R/C (T/B), H/C (M3.1), V/D, V/D, H/C (M3.2), V/D, V/D, H/C (M3.3)

Figure 71: 'Highway Rider' Transcription – page 1

HIGHWAY RIDER 2/2

21 $\frac{V}{D} + \frac{C}{D}$ $F\#m7$ A_{maj7}/E

24 D_{maj7} $H/C (M3.4)$ **8** $\frac{R}{C}$ D_{m7}

27 $E7_{ALT}$ $F\#7sus b9$ $F\#7(b9)$

30 G_{maj7} $G\Delta(\#11)$

32 $C\#7$ $F\#7(b9)$ $\frac{V}{D}$

34 $Bbmaj7$ $H/D (L/T)$ $Ebm7$ D_{maj7}/Ab $Gbmaj7$

38 $Gbm7(b9)$ $Gbmim7$ $\frac{V}{D}$ $\frac{V}{D}$ $H/D (L/T)$ $H/D (C)$

40 $G7sus b9$ $\frac{R}{D} (T/D)$ $G7$ $H/C (M4)$ $Cm7$ $H/C (M4.1)$

$\frac{V}{C}$

Figure 72: 'Highway Rider' Transcription – page 2

HIGHWAY RIDER 2/3

43 $E\flat M A G 7 / B\flat$ $A\flat \Delta 7 (\#11)$
 H/C (M4.2) R/C (P/E) R/O (T/D) - R/C (T/E)

46 $C M 7$ $E\flat M A G 7 / B\flat$
 H/O (L/T) V/O (D) O LAP

48 $A\flat \Delta 7 (\#11)$
 V/O (D) V/C (D) H/C (M5) H/C (M5.1) H/C (M5.2) V/O

50 **A** $C M 7$ $E\flat M A G 7 / B\flat$ $A\flat \Delta 7 (\#11)$
 O/C (M) R/O (T/D)

54 $E\flat M A G 7 / G$ $G\flat o i m 7$
 V/C (D) V/O (D) LAP H/O (P/D) H/O (C)

56 $F M 7$ H/O (L/T) $G 7$ $8VA$
 C/C (B)

58 $(8VA) C \Delta 7 (\#11) / E$ H/O (L/T) $B\flat M 7$ $E\flat 7$
 O/C (M)

61 $A\flat M A G 7$ $A M A G 7 / C\sharp$ H/O $G M 7$
 O/C (M) O/C (M)

Figure 73: 'Highway Rider' Transcription – page 3

The image shows a musical transcription for 'Highway Rider' on page 4. It consists of three staves of music in 4/4 time. The first staff (measures 64-67) has a melodic line with chords F#m7, F7, Bbm7, and Dbmaj7/Ab. The second staff (measures 68-70) continues the melody with chords Gbmaj7, F#m7, and H/C, including triplets and a horizontal consonance. The third staff (measures 71-73) shows a descending chromatic passage with chords Amaj7/E and Dmaj7, ending with a 6-beat rest.

Figure 74: 'Highway Rider' Transcription – page 4

After stating the melody twice (bars 27–28 and 30–31), Mehldau employs temporal density and perceptual dissonance as primary tools for section B (bars 26–49), beginning with a near diatonic phrase (with occasional vertical dissonances, e.g. bar 31 beats 2 and 4) followed by linear tonality (D minor imposed on C#7 – C# super Locrian mode). After a horizontal consonance followed by a vertical dissonance and vertical consonance (bars 32–33), Mehldau uses linear tonality by playing a phrase in Db major over a Bb major chord, creating a dissonance for the whole of bar 34 before resolving to a consonant state at bar 35 using a combination of temporal easing, diatonic note choices, and a restatement of the melody at bars 36–37. He then uses space, generating expectation at bars 37–38 before combining temporal density, perceptual, vertical and horizontal dissonances during bars 39–40 with a phrase that begins with a LAP (see Chapter 4.2.4) in A at bar 38 beat 4 (over a Gb diminished chord), followed by an E minor arpeggio containing two dissonant dyads (bar 39 beats 1–2), then a passage in Gb major (bar 39 beat 3) before a descending chromatic passage. By bar 40, temporal density is the only remaining dissonance as horizontal, vertical, and perceptual dissonances stop in the previous bar. The temporal density gradually decreases as the drums and bass drop out at bar 42, and Mehldau plays a rhythmically dense single-note motif (M4) from bar 41 to bar 43. A 6-beat rest occurs at bars 46–47, before a phrase is played containing perceptual dissonance (then easing) and temporal density. It begins vertically dissonant, resolves to a vertical consonance, and concludes with a horizontal consonance (bars 47–49).

This is achieved via linear tonality (E major over Eb major), followed by a LAP (D over Eb major), then a descending vertical dissonance (D over Ab major). As perceptual dissonance decreases linear activity becomes diatonic (bar 48 beats 2–4) then motivic via a repeated 3-beat dactylic motif (M5) during bar 49.

The last hypermeter (over A) begins with a phrase derived from a melodic quote (from bar 51 beat 3), and is followed by a 6-beat rest, generating expectation (bars 53–54). At bars 55–60, a relatively long phrase is played containing the highest level of perceptual dissonance and temporal density in the solo. This signifies the culmination of the solo and follows a concept of ‘wave’-based dissonance creation, where each section of improvisation contains more dissonance (in particular temporal density and perceptual dissonance). The 5-bar phrase in question begins with a D LAP followed by a descending chromatic passage, a descending vertical consonance (bar 56 beats 1–2), and the linear tonality of G7 (anticipated from the succeeding chord at bar 57 beat 3). At beat 4 of bar 57 a blues figure is heard through to bar 58; the phrase concludes with a slight anticipation to Bbm7 at bar 59, and a reiteration of the melody, an organic consonance, at bars 59–60. Two more organic consonances are played (bar 62 and bars 63–64) before bass and drums drop out at bar 66. Mehlldau plays a metric shift based on a dotted crotchet pulse from bar 65 to bar 67 which is followed by a distinct vertical dissonance (flat seventh over a Db major chord) at bar 67 beat 3. Finally, after a brief harmonic anticipation at bar 69 beat 4, Mehlldau resolves the solo using horizontal consonances.

5.6.2. Conclusions

The piano solo in ‘Highway Rider’ illustrates Mehlldau’s adhesion to melody, which is combined with a motivic strategy that (1) binds sections together, and (2) eases sections of hyper-dissonance. The solo builds in waves, with the greatest amount of perceptual dissonance occurring during the culmination. Events such as metric asynchronicity (bars 16–17) and metric shift (bars 65–66) are placed within a context of horizontal consonances and often conclude with a transformational beat, resolving the rhythmical dissonance (e.g. bar 18 beat 1). This aligns with Liebman’s (2005, p. 13) slack theory: as one element is emphasised (such as rhythm), another is de-emphasised (such as harmony/melody). Mehlldau regularly uses vertical dissonances, even during sections of temporal consonance/easing (e.g. bar 8 beat 1, bars 20, 21 and 67), and also employs typical devices such as anticipation (e.g. bar 13) and sideslipping (e.g. bar 47). A marked example of linear tonality is found at bar 34, with use of

a Db major phrase over a Bb major phrase creating individual vertical dissonances of flat third, flat sixth and flat seventh.

5.7. 'Anything Goes'

'Anything Goes' is a standard, written in 1934 by Cole Porter for the musical of the same name, and has been adapted by Mehltau in several ways: (1) there is a change of time signature from 4/4 to 5/4, (2) the form has been extended from a 32-bar to 34-bar AABA where the last two bars mirror bars 31–32, extending the turnaround, and (3) the last A has been partially reharmonised, incorporating a descending bassline (see Figures 75–78). During this particular recording (from *Anything Goes*, 2004), Larry Grenadier plays a bass solo over a chorus before the piano solo. The coda is a repetition of the intro and turnaround, a Tadd Dameron-like chord sequence consisting of F–Ab–Db–Gb, which is played in F major during the intro and alternates between F and Eb during the coda.

5.7.1. Observations

The A section is 8 bars long and consists of mainly consonant devices, beginning with a diagonal vertical consonance combined with a slowly ascending compound melody from A (bar 1 beat 1) to C (bar 2 beat 2). Bar 3 begins with a vertical dissonance (perfect fourth over Fmaj7) followed by rhythmic and horizontal consonances (bar 3), then a phrase based on the major blues scale (bar 4), and finally a consonant motif (M1) derived from F minor pentatonic from bar 5 to bar 8.

The second A section contains more dissonance, starting at bar 9 with a combination of diminishing dispersal and metric asynchronicity. The hypermeter begins harmonically consonant during bars 9–10 but as the metric asynchronicity eases, linear tonality is introduced by spelling A, G# minor, F# minor, E and D tonalities during bar 11, before resolving to diatonic and blues material during bar 12. Rhythmic dissonance is eased for the remainder of the section, and a motif (M2) characterised by descending and ascending large consonant intervals is heard from bar 13 to bar 15.

The B section begins with a 1-bar pickup measure (bar 16), which consists of a chromatic approach to a repetitive consonant melodic dyad that is played using metric asynchronicity during bars 16–18. This is followed by a 3-beat motif (M3) built on a triplet figure lasting from bar 18 to bar 20. The final four bars of the B section begins with a phrase containing

metric asynchronicity and horizontal perceptual easing, combined with diminishing dispersal (bars 21–24) and utilising motif (M4) at bars 22–23. An ascending scale-based motif (M5) starts at bar 23 beat 3 and continues to the end of bar 25, breaking the hypermeter by 2 bars (bars 25–26; see Chapter 4.5.2: Phrase Rhythm/Hypermeteric Dissonance).

ANYTHING GOES TRANSCRIPTION

FROM ANYTHING GOES. BRAD MEHLDAU TRIO, 2004

H/C - COMPOUND MELODY

A1

A2

Figure 75: 'Anything Goes' Transcription – page 1

ANYTHING GOES/2

15 F_{maj9} $E_b m_9 / D_b$ $B_b (Add_9)$ E_7
 H/C (M2.2)

17 A_{maj7} $E_7 (\#9)$ $H/D (C)$ $R/D (M/A) + V/C (D)$ $H/D (L/T)$

19 C_{maj7} $A_{maj7} / C^\#$ $H/C (M5)$
 H/C (M3.1) C/C H/C (M3.2) H/C (M4) H/C (M4.1) R/C

21 D_m7 G_7 $C^\# m_7$ C_{maj7}
 H/C (M4.2) R/D (M/A) + R/D (O/D) + H/C (P/E)

23 F_{maj9} $E_b m_9 / D_b$ $B_b (Add_9)$ $F^\# \dim / A_b add_4$ $H/D (L/T)$
 H/C (M5) H/C (M5.1) H/C (M5.2)

25 C/E C_m6 / E_b D_m7 H/C G_m7 / C
 H/C (M5.3) H/C (M5.4)

27 $O/D (H4/D)$ F_{maj7} F_7 F_m7 / B_b B_b7
 H/D (L/T) A MAJOR H/D (L/T) E MAJOR

29 F_m7 / B_b B_b7 $B_b m7 / E_b$ E_b7
 H/C (M6) + H/D (P/D) H/C (M6.1) H/C (M6.2) H/C (M6.3)

Figure 76: 'Anything Goes' Transcription – page 2

ANYTHING GOES/B

31 F_{MAs9} V/D E_bM9/Db $Bb(Aoo9)$ $F\#\Delta6/9Aoo4$

33 F_{MAs9} E_bM9/Db $H/C (M6.4)$ $Bb(Aoo9)$ $F\#\Delta6/9Aoo4$

35 **A1** F_{MAs7} G_M7/C F_{MAs7} G_M7/C $H/C (M6.7)$

37 H/C F_{MAs7} G_M7/C F_{MAs7} $F7$ $H/C (M6.8)$

39 F_M7/Bb $Bb7$ $H/C (M6.9)$ $Bbm7/Eb$ E_b7

41 F_{MAs9} E_bM9/Db $Bb(Aoo9)$ $F\#\Delta6/9Aoo4$

43 **A2** F_{MAs7} $H/C (M7)$ G_M7/C F_{MAs7} G_M7/C $H/D (P/D) + R/D (T/D)$ $H/D (C)$

45 F_{MAs7} G_M7/C $H/D (L/T)$ F_{MAs7} $F7$ $H/D (L/T) E Masor$ H/C $H/C (M8)$

Figure 77: 'Anything Goes' Transcription – page 3

ANYTHING GOES/4

The image shows a musical transcription for 'Anything Goes' in 4/4 time, spanning measures 47 to 52. It consists of two staves of music. The first staff (measures 47-50) features chords Fm7/Bb, Bb7, Bbm7/Eb, and Eb7. The second staff (measures 49-52) features chords Fmaj9, Ebm9/Db, Bb(Aoo9), and E7. Various motifs are labeled: H/C (M8.1), H/C (8.2), H/C (M8.3), and O/C (M). A box with the number 8 is at the end of the second staff.

Figure 78: 'Anything Goes' Transcription – page 4

The final A section of the first chorus (bars 25–34) is 10 bars long and after hypermetric dissonance (bars 25–26), two bars of horizontal dissonance via linear tonality are played spelling A major and E major over bars 27 and 28 respectively. From bar 29 to bar 34 Mehl dau combines consonance via a motif (M6) derived from a lower mordent (bar 29 beat 1) that develops into a turn (bar 29 beat 4). With the exception of bar 34 beat 1, the intervals used in M6 gradually increase from a major second at bar 29 to an octave at bar 35, creating perceptual dissonance that culminates at bar 35.

The next A section begins with sustained perceptual dissonance from the previous chorus, combined with horizontal consonance via repetition (and increasing onset frequency) of the third of F major (A) during bars 35, 36 and 37. Two more occurrences of M6 occur, one at bar 36 beat 5 and the other at bar 38 beat 1. At bar 38 beat 3 a vertical triadic dissonance is heard which prefixes a section containing metric asynchronicity lasting through bars 39 and 40, before resolving both rhythmically and perceptually at bars 41–42, marking the end of the section.

The final A section of Mehl dau's improvised solo begins with a temporally dense 2-beat convex motif (M7) that slowly ascends within the section, creating horizontal perceptual dissonance. A chromatic passage at bar 44 beat 5 precedes more linear tonality (bar 45 beats 1–2) followed by horizontal consonance (beats 3–4) and another final dissonant beat (beat 5) before becoming temporally and horizontally consonant (via M8) for the remainder of the solo.

5.7.2. Conclusions

The piano solo in ‘Anything Goes’ has no melodic references, but contains more rhythmic asynchronicity than is found in the previous case studies. Mehldau employs a similar strategy when improvising over the opening two A sections (A1 and A2): consonant/motivic-dissonant/harmonic, and the use of hypermetric dissonance between B and A3 is uncharacteristic of a solo of this size. He also employs motif heavily in this solo, primarily based on consonant small 2-beat cells often inspired by ‘classical’ ornamentation.

5.8. ‘Elegy For William Burroughs And Allen Ginsberg’

‘Elegy For William Burroughs And Allen Ginsberg’ was written for a solo piano album entitled *Elegiac Cycle* (1999), consisting of nine conceptually linked melodies (see Andre, 2011, p. 16). It is a ballad played using (1) a slow piano-stride style in G major at 60bpm, (2) a 16-bar form, and (3) the melody derived from an anapaestic *short-short-long* theme (p. 15), and as the name suggests it contains many musical elements found in romantic music. This chapter is primarily focused on Mehldau’s improvisation; for a detailed analysis of ‘Elegy For William Burroughs And Allen Ginsberg’ and other compositions found in *Elegiac Cycle*, see Andre (2011).

5.8.1. Observations

After a pickup measure containing a consonant ascending arpeggio, the first 8 bars of ‘Elegy For William Burroughs And Allen Ginsberg’ begins with a phrase based on alternations between B and D, harmonised mainly by dyads spelling intervals ranging from a minor second to a major sixth, from bar 2 to bar 4 (see Figures 79–82). At bar 5 Mehldau plays the melody, supported by a vertical dissonance (beat 1), followed by more melodic material and a vertical consonance (beat 3). At bar 6 Mehldau plays a blues passage containing a vertical dissonance and chromaticism, which resolves to a horizontal consonance for the remainder of the bar. The end of the 8-bar hypermeter concludes with an increase of temporal density and perceptual dissonance in bar 7 and easing in bar 8. Mehldau alternates between vertical diagonal consonances and chromatic dissonances for the duration.

At bars 9–10 Mehldau combines vertical consonance with horizontal dissonance in a phrase based largely on quaver triplets, culminating with a transformational beat at the beginning of bar 11. As discussed previously in Chapter 4.7.5, Mehldau employs temporal density/easing

and perceptual dissonance/consonance from bars 11–12, using a major blues scale in bar 11 beat 3. He then combines perceptually fluctuating vertical consonances with a descending horizontal chromatic dissonance, resolving to the third of Em (G), concluding the phrase with consonance via vertical (bar 13, beat 1), horizontal (bar 13 beat 2, bar 14), and cultural means (bar 13 beats 3–4). The hypermeter concludes with a temporally denser reiteration of the melody at bars 15–16.

ELEGY FOR WILLIAM BURROUGHS AND ALLEN GINSBERG
TRANSCRIPTION
 FROM ELEGIAC CYCLE, BRAD MEHLDAU, 1999

Figure 79: ‘Elegy For William Burroughs And Allen Ginsberg’ Transcription – page 1

ELEGY/2

10 $v/c (D)$ $Em7$ $B7/F\#$ $Em7/G$ $H/D (C)$ $Em7$

11 $Cm(MA5?)$ $F7$ $C/C (B)$ H/C $H/D (L/T)$

12 $R/C (T/B)$ $R/D (T/D) + H/D (P/D) - H/D (P/E)$ $F\#m7(b5)$ $B7/F\#$ V/D $H/D (C)$ $GMA5?$ H/C V/C V/D V/C V/C V/D V/D

13 $Em7$ $DM6$ $G7Aug$ $A7$ $B13(b9)$ $Em7$ $DM7$ V/C H/C C/C H/C H/C

15 $Em7/A$ $A7$ $H/D (P/D) - H/C (P/E)$ $Am7/D$ $D7$ $Em7/A$ $A7$ $Am7/D$ $D7$

17 $O/C (M)$ $GMA5?$ $EbD7(\#11)$

19 $Em7$ $H/D (P/D) + C/D (RH OSTINATO WITH LH MELODY)$

Figure 80: 'Elegy For William Burroughs And Allen Ginsberg' Transcription – page 2

ELEGY/3

The musical score is divided into six systems, each containing a staff of music with various annotations:

- Staff 1 (Measures 20-22):** Annotations include $H/D (P/E) - H/C (P/E)$, $C\#M(MA57)$, $F7$, H/C , $H/D (C)$, and H/C . It features triplets of eighth notes.
- Staff 2 (Measures 21-22):** Annotations include $F7$, $O/C (M)$, $Bm7$, $O/C (M)$, $F\#M7/Bb$, $O/C (M)$, $C7/Bb$, V/D , $R/D (T/D) - R/C (T/E) + H/D (P/D) - H/C (P/E)$, V/D , $H/D (C)$, and $C/C (C)$. It includes a 4/7 time signature change.
- Staff 3 (Measures 23-24):** Annotations include $A7Aug$, $B7ALT$, $C\#MA57$, $B13(b9)$, $V/C (D)$, V/D , $H/D (C)$, $V/C (D)$, $H/D (C)$, $C/C (B)$, $H/D (C)$, $H/D (C)$, V/D , $H/D (C)$, and C/C . It features a sextuplet of eighth notes.
- Staff 4 (Measures 24-25):** Annotations include $G\#M7$, V/C , $H/D (C)$, V/D , $Eb7(\#11)$, $H/D (C)$, H/C , $C/C (C)$, $H/D (P/D) - H/C (P/E)$, and H/C . It includes a 7-measure rest.
- Staff 5 (Measures 25-26):** Annotations include $F\#M7(b5)$, $B7$, $Em7$, $F\#M7$, G , $Em7$, and $H/D (C)$. It features triplets and a 5-measure rest.
- Staff 6 (Measures 26-27):** Annotations include $Em7$, $F\#M7$, G , $Em7$, and $H/D (C)$. It features a 5-measure rest.

Figure 81: 'Elegy For William Burroughs And Allen Ginsberg' Transcription – page 3

ELEGY/4

Figure 82: 'Elegy For William Burroughs And Allen Ginsberg' Transcription – page 4

Bar 17 marks the beginning of the next chorus, a dyad-based ostinato is heard in the right hand, accompanied by a left hand improvised melody at bars 17–19, creating perceptual dissonance between parts (and also cultural dissonance as this practice is not commonplace in the jazz piano tradition). Mehldau uses perceptual dissonance and easing in just one bar (bar 20), combining it with diagonal vertical consonance before stating the melody accompanied by vertical dissonances and some chromaticism during bars 20–22. The final two bars of the 8-bar hypermeter contains a temporally dense, perceptually ascending/descending phrase consisting of vertical consonances separated with horizontal chromatic dissonances. Mehldau interjects vertical dissonances (not landing on a downbeat) during the phrase (e.g. bar 23 beat 1 – G# over A7aug; bar 23 beat 4 – Bb over B13b9; and bar 24 beat 1 – B over Gm7).

For the last 8-bar hypermeter Mehldau begins by playing stabs at bar 25 beat 1, re-establishing rhythmic consonance after the temporal density of the previous bars. This easing

is immediately followed by perceptual dissonance then easing from bar 25 beat 2 to bar 27 beat 1, with a largely diatonic phrase that ascends then descends over two bars, finishing with a transformational beat at bar 27 beat 1. Another wave of P/D-P/E occurs during bars 27–28, with phrasing containing blues material, ascending arpeggios, and some vertical and horizontal dissonances before the melody returns at bar 29 beat 3.

5.8.2. Conclusions

Mehldau employs perceptual dissonance heavily in ‘Elegy For William Burroughs And Ginsberg’, using the device to conclude hypermeters, either including temporal density (e.g. bar 11–12), or maintaining relative temporal ease. Mehldau often combines vertical consonances (often ascending) with horizontal dissonances (often descending), and interjects vertical dissonances by way of ‘wrong’ notes, adding contrastive valence to an otherwise largely diatonic line. There are no motifs in this solo, Mehldau uses organic consonance by way of melody instead.

The dyad-based melodic fragment (bars 1–2) is repeated (more densely) in exactly the same place during the second chorus, but is transformed from a feature of the solo to an ostinato figure supporting the line below, played in the left hand. Mehldau uses transformational beats (e.g. bars 11, 25 and 27) to re-establish rhythmic consonance after perceptual and temporal dissonances. Mehldau states the melody reasonably frequently; sometimes he accompanies melodic consonance with vertical dissonance, creating further contrastive valence (e.g. bars 5 and 21). Mehldau employs blues sonorities, favouring the major blues scale (e.g. bars 6, 11 and 27) over the minor blues scale (e.g. bar 23).

5.9. ‘When It Rains’

‘When It Rains’ is a composition written for *Largo* (2002), and arranged for piano trio (Matt Chamberlain on drums, Larry Grenadier on bass) with a four-piece woodwind section playing a predominately homophonic role. The intro and outro of ‘When It Rains’ is rubato piano accompanied by woodwind during the intro; the head is in fixed time and is a relaxed groove established largely by the constant rub of eighth-note triplets heard in the left hand of the piano, and the straight eights played by the drums. The form of the head and solo section is 16-bar AABA, divided into 4-bar hypermeters; the improvisation lasts for three choruses (see Figures 83–86).

5.9.1. Observations

Mehldau's piano solo in 'When It Rains' begins with an initial motivic cell (M1), an anapaestic 3-note based motif with a melodic interval of a perfect fourth (e.g. bar 0 beat 4–bar 1 beat 1). A second motif (M2), a 4-beat 1-3-2-1-semiquaver-based cell, occurs at bar 1 beat 4, which is altered to a 5-3-2-1 cell at bar 2 beat 1. After a brief vertical dissonance of a perfect fourth (F#) over C#7 at bar 2 beat 2, M2 is reiterated at bar 3 beat 4, concluding the first hypermetric division.

At bar 5, a third motif (M3) is introduced, a 5-note cell (two semiquavers with triplet suffix) that is repeated at bar 5 beat 3. At bar 6 a fourth motif (M4) is introduced, a 2-beat 7-note cell consisting of three repeated notes followed by an ascending minor third then a descending triad. This motif is repeated at bar 6 beats 3–4. At bar 7 a B minor linear tonality is played, followed by a reiteration of M1 at bar 7 beat 4. A fifth motif (M5) is played at bar 8 beat 1 and is based on the pattern 3-4-5-6-5, played over the duration of only one beat. The hypermeter concludes with a vertical consonance that is combined with a vertical dissonance at bar 8 beat 4.

A sixth motif (M6) marks the beginning of the B section, a descending 5-4-3-1 figure (in B major) that is repeated three times during bar 9 before M1 is played at bar 10 beat 1 (reduced to a minor third interval), followed by M2 at bar 10 beat 2. At bar 11, Mehldau increases temporal density for the remainder of the first chorus, starting with an ascending vertical passage with chromatic approach notes (reminiscent of *crip* no. 3; see Chapter 4.6.3) and followed by horizontal diatonic consonance. At bar 12, Mehldau plays *crip* no. 6 three times during the bar, followed by *crip* no. 3, an ascending arpeggio utilising chromatic approach notes at bar 13 beat 3. *Crip* 6 occurs twice at bar 14, and again at the beginning of bar 15 before Mehldau plays stabs at bar 15 beat 1. The final phrase of the first chorus is a statement of the melody at bar 15 beats 3–4, and includes the temporal easing to mark the conclusion of both the hypermeter and chorus.

WHEN IT RAINS TRANSCRIPTION

FROM LARGO, BRAD MEHLOAU, 2002

The transcription shows the following harmonic and melodic annotations across the staves:

- Staff 1: H/C (M1), R/D (E/V), B7/A, G#m7, C#7/G#
- Staff 2: G+, H/C (M2.1), B, H/C (M2), V/D
- Staff 3: H/C (M3), B7/A, G#m7, C#7/G#, H/C (M4)
- Staff 4: H/D (L/T), G+, H/C (M1.1), B, H/C (M5), B7, V/C (D), V/D
- Staff 5: H/C (M6), E, C#7, H/C (M1.2)
- Staff 6: R/D (T/D), E7(#11), V/D, V/D, H/C, C/C (C)
- Staff 7: C/C (C), G7
- Staff 8: B, V/D, G#m7, C#7/G#, C/C (C), C/C (C)

Figure 83: 'When It Rains' Transcription – page 1

WHEN IT RAINS/2

15 G^+ $C/C (C)$ $R/C (T/E) + O/C (M)$ B

17 $B7/A$ $V/D (D)$ $H/D (C)$ $H/D (C)$

18 $G\#m7$ $H/D (P/D) + R/D (T/D)$ $C\#7/G\#$ G^+ V/D $C/C (B)$ $H/C (M2.3) + O/C (M)$

20 $V/C (D)$ $H/C (M1.3)$ B R/C $B7/A$ $C/C (B)$ $R/C (T/B)$ $H/C (M5.1)$ $H/D (L/T)$

22 $H/D (L/T)$ $C/C (C)$ V/D $H/D (L/T)$ $C\#7/G\#$ $V/C (D)$ $H/D (C)$

23 G^+ H/C B $B7$ $H/D (C)$ $C/C (B)$ $H/C (M1.4)$ $H/C (M7)$

25 E $C/C (C) + H/D (C) + H/C (COMPOUND MELODY)$

26 $C\#7$ $R/D (M/A)$

Figure 84: 'When It Rains' Transcription – page 2

WHEN IT RAINS/3

27 $E7(\#11)$ $H/O(C)$ V/O V/O $H/C(M8) +$

28 $G7$ V/O $C/C(B)$ B $H/O(C)$ $H/O(C)$

30 $G\#m7$ $C\#7/G\#$

31 G^+ B $R/C(T/B)$

33 $B7/A$ $H/C(M9)$ $G\#m7$ $C\#7/G\#$

35 G^+ V/O V/C $H/C(M3.1)$ $H/O(L/T)$ V/O

36 B V/O V/O $B7/A$ $R/O(M/A)$ $C/C(C) + H/O(L/T)$

38 $G\#m7$ $V/O(O)$ H/C $V/O(O)$ $C\#7/G\#$ $H/O(C)$

Figure 85: 'When It Rains' Transcription – page 3

WHEN IT RAINS/4

39 R/C G+ V/D R/C (T/B)

40 C/C (C) 87 V/C (D)

41 V/C (D) E

42 C#7 H/C (M10) H/C

43 R/D (M/A) + R/D (T/D) + H/D (P/D) E D (#11) H/D (L/T) V/D (D) V/C H/D (L/T)

44 G7 H/D (L/T) H/D (C) V/D V/D R/D (E/V)

45 R/C (T/E) + R/C (T/B) H/C (M5.2) C#7/G#

46 B G#m7

47 G+ C/C (B) B R/C H/C

Figure 86: 'When It Rains' Transcription – page 4

At bar 17, the beginning of chorus 2, Mehl dau combines perceptual dissonance and temporal density with vertical and horizontal dissonances and starts by spelling G major (with an A# chromatic approach tone) over B7/A at bar 17 beat 2, which is followed by chromatic descending passages for the remainder of the bar. A vertical consonance is played at bar 18 beat 1, followed by two vertical dissonances, a perfect fourth (F#) over C#7 at bar 18 beat 2 followed by a sharp ninth (A#) over a G+7 at bar 19 beat 1. A blues figure occurs at beat 2 of bar 19 followed by a fragment of the melody at beat 4; this is also M2. M1 is played at bar 20 beat 1 followed by a rhythmically consonant repeated tonic note B.

A major blues figure begins the second A section of this chorus, followed by M5 at bar 21 beat 2. Mehl dau employs linear tonality by way of spelling F minor over B7/A at bar 21 beat 4, then F major over G# minor at bar 22 beat 1. At bar 22 beat 2 he combines crip no. 6 with linear tonality (G7 over G#m) followed by a consonant vertical ascending arpeggio then an ascending chromatic passage at beat 4. At bar 23 beat 1, a brief chromatic cell prefixes consonant material before a blues figure at beat 4 prefixes M1 for the duration of bar 24.

A seventh motif (M7) is stated at bar 25 (a melodic cell based on 7-6-5-3), the beginning of the B section. This is followed by a complex phrase played for the remainder of the B section comprising of: (1) metric asynchronicity lasting until the transformational beat at bar 28 beat 1, (2) crip no. 6 lasting until bar 27, (3) horizontal dissonance by way of extended chromatic use, and (4) horizontal consonance by way of compound melody lasting until bar 27 beat 3. Vertical dissonances can be found at bar 27 beats 2 and 4. At bar 28 Mehl dau combines a rhythmic consonance (transformational beat) with a vertically dissonant dyad followed by a blues figure.

The final A section of chorus 2 is built around an eighth motif (M8), formed by the notes F# F C# B; this melodically based motif is played three times before being developed to fit diatonically over G+ harmony at bar 31. A tonic based transformational beat is played at bar 32 beat 4 with repetition of B natural.

At bar 33, a third chorus of Mehl dau's solo begins with a ninth motif (M9) based on a 1-3-4-5 pattern lasting for one bar, followed by M3 at bar 34. Mehl dau increases temporal density at bar 35, beginning a phrase with a perfect fourth and descending chromatically to a vertical consonance, before playing a phrase anticipating B major at bar 36. During bars 37-38 Mehl dau employs rhythmic dissonance by way of metric asynchronicity over a phrase that begins with M3, followed by crip no. 6 played twice between bar 37 beat 3 and bar 38 beat 1.

The crip uses linear tonality spelling notes from the key of C major, spelling C and G+7 (also a vertical dissonance) respectively, and proceeds horizontal consonance, then vertical dissonance, and finally extended chromatic use at bar 38 beats 3–4. At bar 39 temporal dissonance is eased, and a transformational beat is stated at beat 2, followed by crip no. 4 played three times diatonically through beats 1–3 of bar 40, which is followed by a diagonal consonant.

At bar 41, Mehldau plays a vertical then horizontal consonance to mark the beginning of the B section, followed by a tenth motif (M10), a repeated 5-note cell derived from an upper mordent (bar 42 beat 3–bar 43 beat 1). At bar 43 beat 2 Mehldau employs heavy use of metric asynchronicity, perceptual dissonance, and temporal density using linear tonality and a vertical dissonance. This is a musical climax. After a chromatic passage at bar 44 beat 2, Mehldau anticipates B major harmony (combined with vertical dissonances) easing temporal density and establishing rhythmic consonance via a slightly anticipated transformational beat at bar 45 beat 1. The solo concludes with the use of consonant material, combining rhythmic, perceptual and horizontal consonance with largely diatonic sonorities.

5.9.2. Conclusions

The most striking feature of the solo in ‘When It Rains’ is Mehldau’s extensive use of both motif and crip. Examples of motif can be found at bars 1, 2, 3, 5, 6, 7, 8, 9, 10, 19, 20, 21, 25, 30, 33, 34, 42 and 46; these motifs usually consist of short cells, 2–7 notes in length, often repeated, sometimes developed. In terms of melodic groupings the motifs can be described numerically (in order) as: 1-1-5, 1-3-2-1, 1-2-2-1-2, 5-5-5-7-6-4-1, 3-4-5-6-5, 9-9-9-1-7-5, 3-5-7-6-5-3, 6-7-6-4-3, 1-3-4-5, and 6-7-6-5-9. These motifs clearly demonstrate Mehldau’s use of cell-based improvisation described in detail by jazz educators such as Bergonzi (1994). Examples of Mehldau’s crips can be found at bars 11, 12, 13, 15, 22, and bar 40; often these crips are largely diatonic but occasionally Mehldau combines organic consonance with horizontal dissonance by way of linear tonality (e.g. bar 22). Mehldau uses space to help create salience in the succeeding line (e.g. bar 39) and uses repetition to saturate the listener, creating expectation of change (e.g. bars 42–43). Contrastive valence is clearly audible at bars 43–44, where Mehldau employs metric asynchronicity, temporal density, perceptual dissonance, vertical dissonance and linear tonality at the same time for climactic effect.

5.10. 'Ode'

'Ode' is the title track of originals album *Ode* (2012) and is a composition that emerges from a syncopated 1-bar cell which is transposed and developed over several key centres using (1) functional harmonic devices such as conventional II–V–I cadences (via tonicisation and full resolution), and (2) pivot chords (in particular second inversion chords) that create a sense of harmonic destabilisation, allowing the harmonic progression to abruptly change direction.

'Ode' is built around a 62-bar form; notably the head changes are (1) altered during the first 32 bars, and (2) extended by two bars during the solo section, creating a 64-bar strophe for solos. The form is AB, where the A section comprises two repeated 16-bar hypermetric sections, and the B section is 32 bars long.

5.10.1. Observations

Mehldau begins the piano solo in 'Ode' (see Figures 87–92) with the combination of two devices: (1) a simple anapaestic motif (M1) as a pickup to bar 1, repeated again as a pickup to bar 3, and (2) use of perceptual dissonance by way of a counter-melody voiced at the top of a quaver-based left-hand comping pattern from bar 1 to bar 31. The particular comping pattern is a continuation of the comping style heard during the head, and is culturally dissonant from normative comping practices by way of its pulse-like repetitive nature and also by its occasional use of simple triadic voicings. The counter-melody created by the upper part of the voicings heard from bar 1 to bar 31 is a diatonically horizontal line utilising (1) chord tones (including guide tones and non-guide tones) and (2) extensions. The gradual shift from a repetitive quaver pulse to normative rhythmical practices occurs seamlessly during this entire section, creating a thematic link between the head and solo sections. In contrast to the melody played in the left hand, Mehldau's right hand establishes four motifs (including the motif already described) during the first 16 bars. The second motif (M2) is a held note played on a downbeat prefixed by a semiquaver (bar 6 beat 4–bar 8 beat 1 and bar 8 beat 1–bar 8 beat 3). The third motif (M3) (e.g. bar 8 beat 4–bar 9 beat 1) is a C# (third of the chord Amaj7) occurring on a downbeat prefixed by a semiquaver turn starting on the fifth (5-4-3-4). The fourth motif (M4) is a rhythmical cell based on quavers with a syncopated semiquaver suffix (e.g. bar 10 beat 3–bar 11 beat 1).

ODE TRANSCRIPTION

FROM ODE, BRAD MEHLDAU TRIO, 2012

The transcription shows the following chord progressions and voicings across the systems:

- System 1:** H/C (M1) Bm7, H/C (M1.1) E7
- System 2:** H/C (M1.2), H/C (M2) Dmaj7
- System 3:** H/C (M2.1), H/C (CALL) + H/C (M3) A/E, H/C (RESPONSE) B7
- System 4:** H/C (M4), H/C (M4.1) Dm7, H/C (M4.2) Amaj7, H/C (M4.3)
- System 5:** Bm7, H/C (L/T), C/C (CRIP), V/C (D)

Figure 87: 'Ode' – Transcription – page 1

00E/2

19 E7 H/C (M3.1) Am7

22 H/C (M4.4) Dmaj7 H/D (C) H/C

24 R/D (T/D) A/E H/D (L/T) C/C (C)

26 B7 R/C (T/E)

29 Dm7 H/D (L/T) H/C Am7 H/D (C) V/C (D)

32 F#m7 C/C (B) O/C (M)

Figure 88: 'Ode' – Transcription – page 2

ODE/3

The musical score is a transcription of a piano accompaniment for a piece titled 'Ode' (ODE/3). It is written in G major (one sharp) and 3/4 time. The score is divided into six systems, each with a measure number in the left margin (34, 37, 40, 43, 47, 51). The notation includes treble and bass staves with various chords and melodic lines. Handwritten annotations above the staves indicate specific chords and techniques, such as $Abm7(b9)$, $Db7$, $H/C (M5) + H/C (CALL)$, $H/C (RESPONSE)$, $Fm7$, F , $H/C (M5.1)$, $Dm7$, $H/C (M5.2)$, $C/C (8)$, $Cm7$, H/C , C/G , $C/C (C)$, $Bbm7$, $O/C (M)$, $Bm7$, $E7$, $F\#m7$, $H/C (M6)$, $O/C (M)$, $H/C (M6.1)$, $Abm7(b9)$, $H/C (M6.2)$, $Db7_{ALT}$, and $H/C (C)$. The score includes various rhythmic patterns, including triplets and sixteenth notes.

Figure 89: 'Ode' – Transcription – page 3

Ode/4

55 **F#m7**
 v/c (D) H/c H/c v/c (D)

57 **Dm7**
 H/c (M7) v/c (D) H/c (L/T) H/c (M7.1)

59 **Ebm7/Bb** v/c (D) **Ebm7**
 H/c Cm7(AEOLIAN) Dbm7 R/D (M/S) H/c (M8)

62 **Dm7(b9)** H/c (M8.1) **A#m7** H/c (M8.2) R/c (T/B)

65 **Bm7** **E7** H/c (M4.5)

Figure 90: 'Ode' – Transcription – page 4

00E/5

68 H/C (M4.6) $\overset{3}{\text{Ama7}}$ H/O (L/T) V/C (O) $\overset{3}{\text{Ama7}}$

71 Dma7 H/C (M2.2) H/O A/E

75 B7 H/C Dm7 R/O (T/O) H/O (C)

78 V/C (O) H/O (L/T) Ama7 H/O (L/T) H/O (C) V/C (O) + C/C

80 Bm7

82 H/O (P/O) + O/O (H/O) E7 H/C (M8.3) H/O (L/T) H/C (M8.4)

Figure 91: 'Ode' – Transcription – page 5

ODE/6

84 H/D (L/T) A MA7 H/D (C) V/C (D) + C/C

86 D MA7

88 R/C (T/E) A/E H/C (M7.2) H/C

91 D M7 H/D (C)

94 H/C A MA7

Figure 92: 'Ode' – Transcription – page 6

The second hypermeter begins at bar 17 with horizontal dissonance via linear tonality (sidestep of Bm to Cm) that also functions as a culturally consonant enclosure of d, the third

of Bm7. Mehldau plays an ascending horizontal consonance followed by a crip (derived from crip no. 6; see Chapter 4.6.3) lasting from bar 18 beat 4 to bar 19 beat 2, before a reiteration of M3 at bar 19 beat 4–bar 20 beat 1. Mehldau uses space from bar 20 to bar 22 beat 2, creating salience to the succeeding line that utilises contrastive valence with a horizontal consonance (M4) combined with horizontal dissonance (linear tonality of Ab over A). At bar 23 Mehldau employs chromaticism via a descending line (bar 23 beats 1–2) and alternating descending minor thirds (bar 23 beat 3), before this dissonance is resolved with the use of a mainly horizontally consonant ascending passage from bar 23 beat 4 to bar 24 beat 4. At bar 25 Mehldau employs linear tonality via tritone substitution (Eb over A) followed by a crip (derived from crip no. 4; see Chapter 4.6.3) at bar 25 beat 3 to bar 26 beat 2. A horizontal consonance ends a period of temporal density that lasts from bar 23 to bar 27. Two bars of rest occur from at bars 28–29, followed by linear tonality (Db arpeggio over Dm7) then a horizontal consonance, a chromatic dissonance, a vertical consonance, and finally a blues lick at bar 32 beat 4, ending the 16-bar hypermeter.

A reference to the melody begins the next 16-bar section at bar 33, followed by a fifth motif (M5), a syncopated 5-note, 2-beat cell occurring at bar 36 beats 1–2, bar 38 beats 1–2, and bar 39 beats 1–2. A horizontally dissonant disjunct melodic phrase occurs at bar 40, which is resolved using a consonant blues motif, a bar of horizontal consonance, and crip no. 1 (stabs; see Chapter 4.3.6) at bar 43. References to the melody occur at bars 44 and 46–47, followed by horizontal consonance from bars 47–49. At bar 50 a sixth motif (M6) occurs, essentially similar to M1, an anapaestic downbeat targeted phrase but with a paired semiquaver suffix during the second half of beat 1 (bar 49 beat 4–bar 50 beat 1). At bar 51 beat 4 M6 is developed into a longer phrase containing largely diatonic material that lasts until the end of bar 54. At bar 55 beats 1–2 a seventh motif (M7) is stated, followed by a vertical consonance, then horizontal dissonance by way of linear tonality (Cm over Dm7), and another instance of M7 during the second half of bar 56. Mainly horizontal consonance ensues from bar 57 to bar 60, after which an eighth motif (M8) is played, a rhythmic 4-note quaver-based motif with a 2-note syncopated suffix (e.g. bar 61 beat 3–bar 62 beat 1). M8 is repeated at bar 62 beats 3–4 and bar 63 beats 1–2; dissonance via syncopation is resolved via a transformational beat at bar 64, concluding the first chorus of Mehldau's solo.

The next chorus begins at bar 65 with a repeated E note, played on and off the beat for two bars. During bars 67–68, Mehldau plays the sixth and seventh instances of M4 before linear tonality is heard at bar 69 beat 2 (Ab over A), followed by vertical consonance and a

reiteration of M2 during the second half of bar 71. Horizontal consonance occurs from bars 72–76, after which temporal density is employed in a long climactic phrase that creates hypermetric dissonance as it continues to bar 88, seven bars after the hypermetric break at bar 81. During this climactic phrase, Mehldau uses: (1) chromaticism (bars 77 and 84), (2) linear tonality (bars 78–79 and 82–84 – Bb7 over A, and Eb over E7 respectively), (3) perceptual dissonance via a counter-melody at bars 80–81, (4) repetitions of M8 at bars 82–83, and (5) formulaic improvisation (cultural consonance) from bar 85 to 88. Temporal easing is heard at bar 88 with the use of a diatonic triplet figure, followed by M7 at bar 89 beat 3; a brief chromatic dissonance is played at bar 93 before the solo concludes with horizontal consonance to bar 96.

5.10.2. Conclusions

Devices used by Mehldau in this solo are: (1) perceptual dissonance via contrapuntal lines heard during the first 31 bars and from bars 80–81, (2) extensive motivic use mainly based on 2-beat cells consisting of various rhythmical groupings, (3) use of space designed to increase the salience of the subsequent line which often begins with sidestep-based linear tonality followed by either consonance (which resolves dissonance) or chromaticism (which extends dissonance), (4) hypermetric dissonance during an extended climactic phrase from bar 77 to bar 88, and (5) call and response figures (e.g. bars 8–10) and antiphony between hands during the latter part of the solo (e.g. bars 82–87). In terms of linear tonality, an example of Mehldau not simply employing sidestep or tritone superimpositions can be found at bar 84, where he implies Ab major over E7; this is an interesting choice as it combines elements of E super Locrian mode (i.e. #5#9 – normative jazz practice) with the addition of the natural sixth (C#) and major seventh (Eb), a cultural and vertical dissonance in its own right.

5.11. ‘River Man’

‘River Man’ (AOT5, 2001) was recorded live at the Village Vanguard New York.

Singer/songwriter Nick Drake composed ‘River Man’ for his first album entitled *Five Leaves Left* (Island Records, 1969). The body of the composition is in 5/4 and consists of an 8-bar harmonically symmetrical vamp in C major (Cm7–Eb7–Ab major 7–C major). Mehldau solos over this 8-bar vamp for 20 choruses. As the longest live solo of the case studies (‘Secret Beach’ is also live), the analysis of ‘River Man’ here is extensive (see Figures 93–105).

RIVER MAN TRANSCRIPTION

FROM AOT5, BRAD MEHLOAU TRIO, 2001

The transcription is written in 5/4 time and consists of four systems of piano accompaniment. Each system includes a right-hand staff with melodic lines and a left-hand staff with harmonic accompaniment. Chord symbols and fingering are provided throughout.

- System 1:** Right hand starts with a C_{Maj7} chord. The melody features triplets. A first ending bracket labeled '1' is placed over the final two measures, which end with a C_{M7} chord.
- System 2:** Right hand begins with an $Eb7$ chord. The left hand provides a steady accompaniment. Chord symbols include $H/C (M1.4)$, V/O , $H/O (C)$, V/O , Ab_{Maj7} , and $H/C (M1.5)$.
- System 3:** Right hand continues the melodic line. Chord symbols include $H/C (M1.6)$, C_{Maj7} , and $C_{M7} C/C (B)$. A second ending bracket labeled '2' is placed over the final two measures.
- System 4:** Right hand features an Ab_{Maj7} chord. The left hand accompaniment includes V/O and $H/O (C)$ chords. The system concludes with $H/C (M2)$ and $H/C (M2.1)$ chords.

Figure 93: 'River Man' – Transcription – page 1

RIVERMAN/3

The musical score is divided into seven systems, each with a treble and bass clef staff. The key signature is one flat (B♭). The time signature is 3/4. The score includes various chords and melodic lines with annotations such as 'H/C (M4.1)', 'E♭7', 'C/C (C)', 'H/D (C)', 'V/O', 'Abmaj7', 'H/C (CALL)', 'H/C (RESPONSE)', 'Cmaj7', 'R/D (D/O)', 'H/C (M5) + C/C (B)', 'Cm7', 'H/C (M5.1)', 'H/C (M5.2)', 'E♭7', 'V/O', 'R/D (M/A)', 'Abmaj7', 'R/C', 'R/D (E/V)', 'Cmaj7', 'H/D (C) + V/C + C/C', and 'Cm7'. Measure numbers 36, 39, 42, 45, 48, and 60 are indicated at the start of their respective systems. The score includes various musical notations like triplets, slurs, and dynamic markings.

Figure 95: 'River Man' – Transcription – page 3

RIVERMAN/4

62

O/D (H4/D)

64

67

8

60

62

64

Figure 96: 'River Man' – Transcription – page 4

RIVERMAN/5

66 H/O (L/T) H/O (C) Cm7 H/C (P/E) + R/C

69 Eb7 C/C (C) H/O (P/D) + V/O

71 Abmaj7 V/O R/O (T/O) O/C (H/O) (A7+) (DM) (EM) Cmaj7 H/O (C)

74 (E) (A7) Cm7 H/C (M6) H/C (M6.1)

77 Eb7 H/C (M6.2) C/C (C) H/O (C) H/C (M6.3)

79 Abmaj7 H/C (M6.4) H/O (C) + R/O (M/A) + H/O (P/D) - H/C (P/E)

Figure 97: 'River Man' - Transcription - page 5

RIVERMAN/6

The score is divided into six systems, each with a piano (P) and guitar (G) part. Measure numbers 81, 85, 87, 89, and 12 are indicated in boxes.

- System 1 (Measures 81-84):**
 - Piano:** Chords include C_{Maj7} , $V/C (D)$, $H/O (L/T)$, and $H/C (M7)$. Techniques include triplets and a 5-fingered scale.
 - Guitar:** Chords include C_{Maj7} , $V/C (D)$, $H/O (L/T)$, and $H/C (M7)$.
- System 2 (Measures 85-86):**
 - Piano:** Chords include $H/C (M7.1)$, $H/C (M7.2)$, V/O , V/O , and $C/C (C)$.
 - Guitar:** Chords include C_{M7} , $H/C (M7.1)$, $H/C (M7.2)$, V/O , V/O , and $C/C (C)$.
- System 3 (Measures 87-88):**
 - Piano:** Chords include $R/O (M/A) + H/O (P/O) + H/O + R/O (T/O)$, V/O , V/O , and V/O .
 - Guitar:** Chords include $Eb7$, V/O , $H/O (C)$, and $H/O (C)$. Techniques include triplets.
- System 4 (Measures 89-90):**
 - Piano:** Chords include $R/O (T/O)$.
 - Guitar:** Chords include Ab_{Maj7} , V/O , $R/O (E/V)$, and $R/O (T/O)$. Techniques include triplets.
- System 5 (Measures 91-94):**
 - Piano:** Chords include C_{Maj7} , $O/O (H/A/O)$, $H/O (C)$, $H/O (C)$, $H/O (L/T)$, and $H/O (L/T)$. Techniques include triplets and a 7-fingered scale.
 - Guitar:** Chords include C_{Maj7} , $O/O (H/A/O)$, $H/O (C)$, $H/O (C)$, $H/O (L/T)$, and $H/O (L/T)$. Techniques include triplets and a 7-fingered scale.
- System 6 (Measures 95-98):**
 - Piano:** Chords include R/C , $H/O (C)$, $H/O (C)$, $R/O (M/A)$, $Eb7$, and $C/C (C)$. Techniques include triplets and a 7-fingered scale.
 - Guitar:** Chords include C_{M7} , $H/O (C)$, $H/O (C)$, $R/O (M/A)$, $Eb7$, and $C/C (C)$. Techniques include triplets and a 7-fingered scale.

At the bottom right of the page, the chord combination $C/C (B) + R/C (T/E)$ is noted.

Figure 98: 'River Man' – Transcription – page 6

RIVERMAN/7

94 H/O (C) H/O (L/T) H/O (C) V/C (D) RIVERMAN/7
 97 V/O Cm7 O/O (H4/O) V/O
 99 H/C (CALL AND RESPONSE) C/C (B) H/O (P/O) + V/O
 102 H/C (P/E) H/C (M8)
 104 H/O (C) Cm7 C/C H/C (M8.1)
 106 Cm7 V/O
 14 H/C (M8.2) O/O (H4/O)

Figure 99: 'River Man' – Transcription – page 7

RIVERMAN/8

108 H/C (M8.3) V/D H/C (M8.4) V/D

110 V/D R/D (M/S) + C/C (S) H/C (M8.5)

112 H/D (P/D) + R/D (M/A) V/D Cmaj7

114 H/D (C) Cmaj7 H/D (P/D) + R/D (T/D) - UNTIL END OF CHORUS 15

116 V/D C/C (S) H/D (L/T) Eb7 H/D H/D (L/T) (EM) (DM)

Figure 100: 'River Man' – Transcription – page 8

RIVERMAN/9

The score is divided into systems, each with a measure number in a box:

- System 1 (Measures 118-119):** Treble clef has a whole note chord. Bass clef has a walking bass line. Chord voicing: $H/D (C)$.
- System 2 (Measures 120-121):** Treble clef has a complex chord voicing with triplets. Bass clef has a walking bass line. Chord voicings: $Abmaj7$, $C/C (B)$, (Eb) , (E) .
- System 3 (Measures 122-123):** Treble clef has a melodic line with a double bar line and a triplet. Bass clef has a walking bass line. Chord voicings: $R/D (M/A)$, $R/D (M/A)$, $Cmaj7$, $H/D (C)$, $H/D (C)$.
- System 4 (Measures 124-125):** Treble clef has a melodic line with a double bar line and a triplet. Bass clef has a walking bass line. Chord voicings: $H/D (L/T)$, $O/D (H/A/D)$.
- System 5 (Measures 126-127):** Treble clef has a melodic line with a double bar line and a triplet. Bass clef has a walking bass line. Chord voicings: $O/D (H4/D) + R/D (T/D)$, $H/D (C)$, $O/D (H/A/D)$.
- System 6 (Measures 128-129):** Treble clef has a whole note chord. Bass clef has a walking bass line. Chord voicings: $R/C (T/E)$, $Eb7$, $C/C (C)$.

Figure 101: 'River Man' – Transcription – page 9

RIVERMAN/10

The transcription consists of six systems of piano accompaniment, each with a treble and bass clef staff. The key signature is one sharp (F#), and the time signature is 4/4. The piece is titled 'RIVERMAN/10'.

- System 1:** Treble clef starts with $A\flat M A\flat G^7$ and C^7 voicings. Bass clef starts with $O/D (H/A/D)$, $(A\flat 7)$, $(B M 7)$, $(B\flat M 7)$, $(E\flat 7)$, and $(B\flat M 7)$ voicings. Includes triplets and sixteenth-note runs.
- System 2:** Treble clef starts with $C M A\flat G^7$ and C^7 voicings. Bass clef starts with $R/O (T/O)$, $C^7 (B)$, $H/O (C)$, V/O , V/C , $H/O (C)$, and $H/O (C)$ voicings. Includes triplets and sixteenth-note runs.
- System 3:** Treble clef starts with $C M 7$ and C^7 voicings. Bass clef starts with $H/O (P/O) + R/O (M/A) + R/O (T/O)$ and V/O voicings. Includes triplets and sixteenth-note runs.
- System 4:** Treble clef starts with $E\flat 7$ and V/O voicings. Bass clef starts with $V/C (D)$, $V/C (D)$, $H/O (C)$, and $H/O (L/T)$ voicings. Includes triplets and sixteenth-note runs.
- System 5:** Treble clef starts with $A\flat M A\flat G^7$ and C^7 voicings. Bass clef starts with $R/O (T/O)$, $R/O (M/A)$, and $O/D (H/A/D)$ voicings. Includes triplets and sixteenth-note runs.

Figure 102: 'River Man' – Transcription – page 10

RIVERMAN/11

System 1 (Measures 137-140):
 Treble Clef: $R/C (T/E) + H/C$, $R/D (E/V)$, $R/C + H/C$, $H/D (C)$
 Bass Clef: $O/D (H/A/D)$

System 2 (Measures 139-142):
 Treble Clef: $Cm7$, V/D
 Bass Clef: V/D

System 3 (Measures 141-144):
 Treble Clef: $Eb7$, $C/C (C) + R/D (M/S)$
 Bass Clef: $C/C (C) + R/D (M/S)$

System 4 (Measures 142-145):
 Treble Clef: $H/D (P/D) + R/D (M/A)$
 Bass Clef: $O/D (H/A/D) (A)$

System 5 (Measures 143-146):
 Treble Clef: $Abmaj7$, $(Eb) V/D$, (E) , $(D7)$, $(Bb7+)$
 Bass Clef: $(A7)$, (Ab)

Figure 103: 'River Man' – Transcription – page 11

RIVERMAN/12

The musical score is presented in a system of five systems, each with a treble and bass clef staff. The notation includes various musical symbols such as triplets, slurs, and dynamic markings. Chord diagrams are provided below the bass staff of each system, often with a circled measure number. The chords and their corresponding measure numbers are as follows:

- System 1 (Measures 144-145): Chords (A7) (E7), (Ab7), (C) (D) (E) (A) (D), and H/D (L/T).
- System 2 (Measures 146-147): Chords (G) (C) (CM), Cmaj7, H/C (M8.6), and H/C (M8.7).
- System 3 (Measures 149-150): Chords Eb7, H/C (M8.8), and H/C (M8.9).
- System 4 (Measures 151-152): Chords Abmaj7, H/C (M8.10), H/C (M8.11), and V/D (D).
- System 5 (Measures 155-156): Chords Cmaj7, H/C (M8.12), and H/C (M8.13).

Figure 104: 'River Man' – Transcription – page 12

H/O (P/D) RIVERMAN/13
 R/C
 8VA
 20 C M7
 155
 H/O (C) C/C (C) H/O (L/T) (E7) V/C (D)
 157
 Abmaj7
 159
 Cmaj7 V/D V/D
 161
 V/D

Figure 105: 'River Man' – Transcription – page 13

5.11.1. Observations

Chorus 1 begins with a simple 3-note triplet-based motif (M1) played three times as a pickup (bars 1–2); it is played again at bar 3 beat 1. Mehldau uses space during the first chorus of this solo (e.g. bar 3 beat 2–bar 4 beat 5) and comping activity is increased to compensate. At bar 5 he plays the initial motif again followed by three mild dissonances, a vertical, a horizontal (chromatic), and another vertical dissonance before M1 is heard at the beginning

of bar 7, and again at the beginning of bar 8. Each occurrence of this motif varies from the original slightly; it begins as a triplet figure from M1.1 to M1.3. The third note of M1.4 is delayed; M1.5 is displaced by a triplet quaver, and M1.6 is rhythmically augmented.

Chorus 2 begins with a 2-bar blues figure at bar 11 beats 1–2, followed by rest until bar 13 beats 1–2, where another blues figure is heard. After another bar of rest a third blues figure is heard at bar 15. Another bar of rest follows before a second motif (M2) is played then repeated during bars 17–18. This motif consists of a vertical dissonance of a minor second followed by a diagonal vertical consonance; M2 and M2.2 also contain a descending suffix.

Chorus 3 consists of five occurrences of M2 (played over C minor blues), separated by bars of rest (bars 20, 22, and 26). Closing signal stabs can be found at bar 19 beats 3–4 and bar 21 beats 3–4, although in each case one of each of the pair of stabs is syncopated.

The first three bars of chorus 4 consist of syncopated stabs (bar 27), on-beat stabs (bar 28), M2 (bar 29), and a vertical dissonance (bar 29); these events are all played using the C minor blues scale. After a bar's rest, a third motif (M3) is played at bar 31, a simple 3-note ascending scalular figure using Eb-F-G; this motif is combined with metric asynchronicity that is resolved during the next bar. Organic dissonance is heard by way of harmonic destabilisation at bar 33, where Mehldau briefly spells a C minor triad instead of a C major; both hands support this. Chorus 4 ends with two vertical dissonances and a blues passage at bar 34, forming the fourth motivic figure of the solo (M4).

Chorus 5 begins with a restatement of M4 at bar 36, followed by stabs at bar 37. Dissonance is established at bar 38 with a dissonant dyad, followed by a chromatic passage, then a dissonant triad. After another dissonant dyad at bar 39, horizontal consonance is established via call and response; a mild vertical dissonance (major second) is played at bar 40 beat 4 before a brief diminishing dispersal at bars 41–42.

Chorus 6 begins with a 2-beat pickup based on a fifth motif (M5), a descending blues figure from F# to Eb. M5 is heard twice more during bars 43–45 before a vertical dissonance at bar 45 beat 4, which begins a passage of blues material harmonically supported by culturally consonant block-chord-style comping. This style of comping creates a perceptual dissonance through its harmonic density and some inner movement which resolves at bar 47. In addition, rhythmic dissonance is achieved through metric asynchronicity during bars 46–47 and expressive variation (straightening swing quavers) at bar 47 beats 1–2; both rhythmical

dissonances are resolved during the latter part of bar 47. The remainder of chorus 6 comprises a repeated cultural consonance, a chromatic diatonic-like cliché based on a vertical consonant triad embellished with chromatic passing tones. This cliché lasts only for one beat and is heard 7 times during bars 49–50.

Chorus 7 begins with a further five repetitions of the cultural cliché heard during bars 49–50, creating hypermetric dissonance from the previous chorus lasting bars 52–53. Repetition of any sonority leads to saturation and the expectation of change, and at bar 54 Mehl dau creates contrastive valence by combining vertical dissonance, blues, and chromaticism with mild perceptual dissonance (due to harmonic density and a contrapuntal line also played in the right hand) from the second beat of bar 54 to the beginning of bar 55. He then resolves dissonance by playing a blues passage lasting a bar. Chromaticism and a mild vertical dissonance feature in bar 56, followed by a blues passage combined with another vertical dissonance lasting for the rest of the chorus.

Chorus 8 begins with a blues figure at bar 59, followed by an organic consonance (by way of melody) combined with metric asynchronicity during bars 60–61. This is the only occurrence in the solo where the head is referenced. At bar 62 Mehl dau continues rhythmical dissonance via metric asynchronicity, combining it with two descending chromatic passages separated by a minor third and concluded with a transformational beat at the beginning of bar 63. A vertical consonance followed by a chromatic horizontal dissonance precedes a trill at bar 65; the chorus finishes with an ascending linear tonality by way of harmonic anticipation of Cm7 at bar 66, followed by a chromatic run into the next bar.

Chorus 9 begins with perceptual consonance, Mehl dau employing a simple repeated note and a lack of temporal density during bars 67–68, followed by stabs at bar 69. Perceptual and vertical dissonances are created from bar 70 with a dense chordal passage lasting for 2 bars. To conclude the chorus, Mehl dau increases temporal density and uses harmonic destabilisation as he spells a cyclical chord sequence (A7+–Dm7–Em–E–A7) from bar 73 beat 3 to bar 74 beat 3.

Chorus 10 consists almost entirely of a sixth motif (M6) which is repeated four times after its initial statement, creating a large section of horizontal consonance from bar 75 to bar 79. M6 is based on a melodic dyad played using triplets. Consonance created from bar 75 to bar 79 is contrasted at bars 80–81 with a figure containing (1) perceptual dissonance to perceptual easing, (2) rhythmic dissonance via metric asynchronicity, and (3) horizontal dissonance

using chromaticism. The highly dissonant nature of this figure is temporarily resolved with a vertical and rhythmically consonant passage at bar 82, the last bar of chorus 10.

Chorus 11 begins with a small motivic figure played as a pickup to bar 83; this motif (M7) consists of the notes G, Eb, E and F and is repeated twice in bar 83 after the initial statement during bar 82 beat 5–bar 83 beat 1. Bar 84 contains two dissonant dyads, a minor seventh at beat 3, and a minor ninth at beat 4; these are followed by syncopated stabs at the end of bar 84 and beginning of bar 85 respectively. Metric asynchronicity and perceptual dissonance is combined with a largely disjunct melodic passage from bar 85 beat 4 to bar 87 beat 4. During this time Mehl dau uses vertical dissonances on a regular basis; for example, minor seconds are found at bar 85 beat 4 and bar 86 beats 3, 4 and 5. Sometimes these dissonances are extensions of Eb7, such as at bar 86 beat 4, where a B and C form a dissonant dyad containing a sharp fifth (Chapter 4.2.1 on single note dissonances) and thirteenth respectively (typical extension). Other times the sonority is not consonant to the chord, for example bar 86 beat 3 where a D and Eb are played - the D is a major seventh, inherently dissonant to Eb7. Expressive variation is used during bar 87 beat 5–bar 88 beats 1–2, where Mehl dau plays straight quavers; this is followed by a phrase that concludes chorus 11. This combines temporal density and metric asynchronicity with harmonic destabilisation as Mehl dau replaces C major with the chord sequence C–D–E–A–F#7–C from bar 89 beat 3 to bar 90 beat 3, combining it with chromaticism and linear tonality by way of anticipating C minor.

Chorus 12 begins with a rhythmically consonant repeated figure prefixed with chromaticism at bar 91, followed by a chromatic phrase at bar 92. At bar 93 temporal density eases; this is combined with a blues figure creating consonance before a contrastive phrase at bars 94–95, a descending figure utilising a combination of chromaticism, and sidestep-derived linear tonality (A major over Ab major). At bar 96 Mehl dau plays a vertically consonant phrase ending on an Ab, a dissonant note in C major. The dissonance of this particular Ab could be questioned – certainly it is a dissonant sonority but it is also a romantic device and can be justified as being simply the root of the previous chord, Ab. Mehl dau plays an Fm6/C or Dm7b5/C during the latter half of bar 97, destabilising the harmonic norm; this is resolved during the next bar as C major and C sus chords are spelt.

Chorus 13 begins with a 2-beat pickup containing a dissonant dyad (bar 98 beat 4) leading into a blues-based call and response phrase played between hands from bars 99–101. Perceptual and vertical dissonances (mainly perfect fourths over Eb7) are combined from bar

101 beat 4 to bar 102 beat 5. Consonance (via perceptual easing) ensues at bar 103 followed by an eighth motif (M8), a triplet-based dyad figure played from bar 103 beat 4 to the end of bar 104. This chorus concludes with the reoccurrence of a cliché heard during chorus 6, stated five times from bar 105 to bar 106 beat 3.

Chorus 14 begins with an instance of M8, creating hypermetric dissonance from chorus 13; M8 is repeated four times from bar 107 to bar 110, each time suffixed with a dissonant dyad or triad during the fifth beat of every bar. Rhythmic dissonance (metric shift) occurs during bars 111–112, followed by perceptual dissonance by way of a counter-melody played by the left hand from bar 112 beat 5 to bar 114 beat 5. During this time, Mehl dau also plays with metric asynchronicity and vertical dissonances such as C# (b9) over C major 7 at bar 113 beat 3, and Ab (b6) over C major 7 at bar 113 beat 4.

Chorus 15 begins with a loose blues-based ostinato-type figure played in the right hand, accompanied by continuation of improvised melody from the previous chorus. As this particular phrase is long it is not considered a hypermetric dissonance; instead it alludes to a musical climax. If the phrase finished mid-chorus then a decision would have to be made as to whether it is hypermetrically dissonant, which in this case it is not. In all cases, final decisions such as these are made with help of the audio recording. At bar 117, after having played mainly consonant material from the beginning of chorus 15, Mehl dau employs large amounts of disjunct melody and linear tonality from bar 117 to bar 118; the implied key centres in order are: E minor (bar 117 beats 1–2), D minor (bar 117 beat 4–bar 118 beat 2), Eb major (consonance) (bar 118 beats 2–4), and E major (bar 118 beats 4–5). At bar 119, diatonicism is returned in the left hand after beat 1, supported by more blues-based ostinato and dissonant dyads in the right hand. However, metric asynchronicity is introduced combined with temporal density from bar 115, supporting a climax. During the last beat of bar 120 improvised melody returns to Mehl dau's right hand, largely diatonic in nature and utilising just two chromatic dissonances in bar 122, supported by sidestep-derived harmonic destabilisation (Bb7-B) during the latter half of the bar.

Chorus 16 starts with two bars of hypermetric dissonance, as the improvised line continues from the previous chorus, sidestepping briefly to B major at bar 123 beats 3–4. Mehl dau continues with temporal density but eases metric asynchronicity, slowly aligning to the tactus; temporal easing and rhythmic consonance is fully achieved by bar 125. At bar 126 Mehl dau plays a crip based on crip no. 6, replacing a descending arpeggiated figure with a

descending scale passage. The crip is repeated twice during bar 127 both diatonically (beats 4–5) and using the implied linear tonality of Bm7 during beats 2–3. During bars 127–128 Mehldau comps using both Ab7 and Bbm7-Eb7 instead of Ab major. Mehldau uses linear tonality of C major over Ab major during bar 128 beats 4–5 and a blues passage in Ab at bar 129 beats 1–2, followed by a combination of chromaticism and mainly vertical consonances at bars 129–130.

Chorus 17 begins with a 1-bar pickup from the previous chorus; perceptual dissonance and metric asynchronicity are created via a contrapuntal line that begins in the left hand at bar 130 and consists of major blues, descending vertical consonance, and descending chromaticism; counterpoint lasts for 3 bars until bar 132 beat 3, after which two dissonant dyads are played during the last beat of bar 132 and the beginning of bar 133 respectively. After an ascending chromatic left hand passage at bar 133 Mehldau uses a vertical consonance followed by chromaticism at bar 134 beats 1–4, followed by C harmonic minor linear tonality at beat 5 and bar 135 beat 1. Temporal density is increased from bar 134 and eases at bar 137; bar 135 is horizontally and metrically consonant while bar 136 contains harmonic destabilisation via Dm7–G7–Cmaj7, a II–V–I in C major, anticipating the tonic chord C in the succeeding two bars. Bar 136 also contains metric asynchronicity from the right hand. Dissonance is resolved from bar 137 with temporal easing and diatonic notes— an exception being the use of harmonic destabilisation at bar 137 beats 4–5, with a cyclical triadic movement from D–G–C.

Chorus 18 begins with a repeated C played in triplets, a horizontal and rhythmical consonance. At bar 141 Mehldau combines metric shift (8 quavers played as triplets) with crip no. 5 (see Chapter 4.6.3 and Figure 47), repeated twice during the bar. From bar 142 to bar 145 Mehldau uses harmonic destabilisation, metric asynchronicity, and perceptual dissonance throughout, spelling the chord sequences given in Table 18.

Table 18: Harmonic Destabilisation of bars 142–145 of ‘River Man’

Bar	Original Harmony	Harmonic Destabilisation (no extensions)
Bar 142	Eb7	A–Eb–E–Db–Bb7
Bar 143	Ab	A7–Ab
Bar 144	Ab	A7–E7–Ab7
Bar 145	C	C–D–E–A–D
Bar 146	C	G–C–Cm

Chorus 19 consists of M8 repeated eight times, once per bar from bar 147 to bar 154. A vertical diagonal dissonance at bar 154 beats 3–5 acts as a harmonically anticipated pickup measure into the final chorus of the solo. Chorus 20 starts with a rhythmical consonance at bar 155, followed by a blues figure at bar 156. The final dissonant line of the solo (from bar 157 to bar 158) contains chromatic dissonance, followed by another instance of crip no. 5 and then by E7 linear tonality before consonance is restored primarily by vertical means for the rest of the solo.

5.11.2. Conclusions

At 13 pages, ‘River Man’ is by far the longest transcription in this exegesis and is the second transcription requiring analysis of the grand staff. The solo consists of 20 choruses, each chorus containing varying amounts of C/D, and is the quintessential ‘build’ solo. In general each chorus becomes more complex, containing more simultaneous devices pertaining to C/D. Also in general, consonance is used more during the opening part of the solo and dissonance is introduced as the solo progresses, leading to a climactic point at chorus 18.

Table 19 shows C/D in each chorus of Mehl dau’s ‘River Man’ solo. The first 10 choruses show a gradual introduction of ideas relating to C/D. Chorus 11 contains a combination of metric asynchronicity, harmonic destabilisation, perceptual dissonance, linear tonality, and temporal density (this is particularly significant); this combination signifies the beginning of a gradual build to a musical climax (via contrastive valence) at chorus 18.

Table 19: Consonance and Dissonance in River Man

Chorus	Motif (H/C)	Chromaticism (H/D)	Vertical Dissonance	Horizontal Dissonance (Disjunct)	Blues (C/C)	Cultural Consonance	Metric Asynchronicity (R/D)	Harmonic Destabilisation (O/D)	Call and Response (H/C)	Diminishing Dispersal (R/D)	Perceptual Dissonance (H/D)	Hypermetric Dissonance (O/D)	Melody (O/C)	Linear Tonality (H/D)	Temporal Density (R/D)	Metric Shift (R/D)	Expressive Variation (R/D)
1	✓ ✓	✓	✓														
2	✓	✓	✓ ✓		✓ ✓												
3	✓ ✓		✓		✓	✓											
4	✓	✓	✓		✓	✓	✓	✓									✓
5	✓	✓	✓		✓	✓			✓	✓							✓
6	✓	✓	✓		✓	✓	✓				✓						✓
7		✓	✓		✓						✓	✓					
8		✓			✓		✓						✓	✓			
9		✓	✓			✓		✓			✓				✓		
10	✓ ✓	✓				✓	✓				✓			✓			
11	✓	✓	✓	✓		✓	✓	✓			✓			✓	✓ ✓		✓
12		✓	✓		✓	✓	✓	✓						✓			
13	✓	✓	✓			✓			✓		✓						
14	✓	✓	✓		✓	✓	✓				✓	✓		✓		✓	
15		✓	✓	✓	✓		✓	✓			✓ ✓			✓	✓ ✓		
16		✓	✓		✓	✓		✓				✓		✓	✓ ✓ ✓		
17		✓	✓			✓	✓	✓			✓			✓	✓ ✓ ✓		✓
18					✓	✓	✓	✓ ✓			✓			✓	✓ ✓ ✓	✓	
19	✓ ✓		✓														
20		✓	✓		✓	✓								✓			

Legend: ✓ = included in chorus ✓✓ = predominant feature of chorus

From chorus 11 (and with the exception of chorus 13) Mehdau uses either harmonic destabilisation and/or linear tonality as a superimpositional tool. He improvises in waves, allowing breathing space between choruses containing multiple dissonances. Examples of this are (1) chorus 13 where Mehdau employs mainly consonant material such as blues, motif, and call and response, and (2) chorus 19 where the entire chorus consists of motivic material. Consonant choruses act as breathing space not unlike the use of space described in the observations of choruses 1 and 2. A chorus of consonant material does not diminish the build of a musical climax, but instead helps to elongate the build, something Burton (2012) emphasises. Chorus 19 is simply an extension of chorus 18, and does not result in a reduction of climax. When linear tonality is heard in chorus 20, this communicates that a climax is still in place; it is not until bar 160 that there is a sense that the solo is coming to an end, achieved with rhythmical, vertical, and horizontal consonances.

Mehdau uses very little melodic material in this solo; indeed it is only found in chorus 8. Instead he uses repetition of small motivic cells and blues material early on for consonant effect. Vertical dissonance can be found throughout the solo, Mehdau particularly favouring the perfect fourth in chords; chromaticism is also a widely utilised device throughout. Hypermetric dissonance is not a prevailing factor when evaluating a musical climax, nor is diminishing dispersal or expressive variation; however they both contribute to solo arousal/attention and valence. The essence of Mehdau's solo in 'River Man' is (1) introduction to solo via consonant material, (2) gradual introduction of new dissonant elements, (3) gradual build to musical climax via juxtaposition of dissonances (in particular metric asynchronicity, harmonic destabilisation, perceptual dissonance, linear tonality, temporal density, and metric shift) and (4) elongation of music climax predominantly via repetition of motif and other consonances.

5.12. Summary of Case Studies

This chapter has demonstrated Mehdau's extensive and controlled use of C/D via the analysis of 10 improvisations spanning eight albums released during a 17-year period from 1995 to 2012 (see Table 20).

Table 20: Case Studies

Track Name	Album	Group	Live/Studio	Year
Tres Palabras	<i>Anything Goes</i>	Trio	Studio	2004
Secret Beach	<i>Live</i>	Trio	Live	2008
Sky Turning Grey (For Elliott Smith)	<i>Highway Rider</i>	Ensemble	Studio	2010
Blame It On My Youth	<i>AOT2</i>	Trio	Studio	1995
Highway Rider	<i>Highway Rider</i>	Ensemble	Studio	2010
Anything Goes	<i>Anything Goes</i>	Trio	Studio	2004
Elegy For William Burroughs And Allen Ginsberg	<i>Elegiac Cycle</i>	Solo	Studio	1999
When It Rains	<i>Largo</i>	Ensemble	Studio	2002
Ode	<i>Ode</i>	Trio	Studio	2012
River Man	<i>AOT5</i>	Trio	Live	2001

While I am conscious of the potentially reductive process of the analysis, it is nevertheless possible to draw tentative conclusions relating to Mehldau's improvisational style after study of 10 of his piano solos. Mehldau employs a strategy that often draws from organic consonance via melodic statement, crips and blues, and a horizontal consonance via motif. Mehldau uses these consonances in (1) thematic material for the initial stages of his improvisation, and (2) end passages of dissonance or hyper-dissonance. He also uses them as a prolongational tool (combined with temporal density and/or repetition), elongating sections of wave-like improvisation during a musical climax or contrastive valence. In terms of motivic material, these are usually short statements lasting 1–2 beats that are either repeated until saturated or developed and changed; however, the motifs are usually (but not always)

regionally isolated during the solo, with Mehldau often favouring the statement and development of a new motivic idea rather than revisiting material.

In terms of dissonance, it can be concluded that Mehldau uses chromaticism either as (1) a prolongational tool, succeeding sections of dissonance such as linear tonality or diagonal vertical dissonances, or (2) as melodic material furthering the disjunct nature of a phrase. Mehldau uses expressive variation and diminishing dispersal for arousal/attention and valence, adding to the depth of his playing. However, these tools do not play a significant part in aiding climactic sections of music. Instead, Mehldau combines rhythmic dissonance such as temporal density, metric asynchronicity or metric shift, perceptual dissonance (either via tessitural extremes or counterpoint), horizontal dissonance (such as chromaticism and/or linear tonality), and organic dissonance (harmonic destabilisation and/or hypermetric dissonance) during musical climaxes. It is the combination of these elements that creates hyper-dissonances that are used either to (1) culminate a wave-like improvisational build-like passages before consonance is restored, or (2) to create a musical climax. Mehldau uses space often during the beginning of a solo and also prior to either a hyper-dissonant or contrastive passage, adding salience to the succeeding phrase. He restores consonance using motif, blues and melody, as previously discussed. In addition, he also uses rhythmic consonances such as transformational beats and metric synchronicity/repetition to ease dissonances.

Mehldau uses vertical dissonances extensively, favouring dissonant dyads and ‘wrong’ notes (the perfect fourth in particular); both these devices are often used at the beginning of an otherwise diatonic phrase providing contrastive valence. Vertical dissonances are also often used in relatively consonant passages, either at the beginning or end of a solo. Other contrastive pairings include a (1) diagonal vertical consonance followed by horizontal dissonance, (2) vertical dissonance (including diagonal) followed by horizontal dissonance followed by vertical consonance, (3) horizontal dissonance followed by vertical consonance, and (4) horizontal consonance (motif) combined with horizontal dissonance (linear tonality).

Mehldau uses the following cultural consonances: enclosure, blues, 4-note groupings, tritone substitution, sideslipping, octatonic scales, harmonic minor scale, and melodic minor devices. However, with the exception of blues material, Mehldau doesn’t rely heavily on cultural consonances and clichés, instead favouring the individualistic nature of motif and melody. Culturally idiosyncratic material is heard more in Mehldau’s earlier recordings, whereas perceptually dissonant material (e.g. counterpoint) is more common later on.

In terms of linear tonality, Mehldau applies normative practices of key centre anticipation (e.g. many examples of this can be found in ‘River Man’). He also employs techniques such as sideslipping to dissonant key centres before resolving them to consonant ones via chromaticism or vertical consonances. Mehldau’s approach to linear tonality can be seen in his choice of implied key centres; often he will imply key centres containing the occasional vertical dissonance. For example, Mehldau might use the linear tonality of A major over a C7 chord; most of the notes found within an A major scale are consonant to C7 or C7alt, the exception being the major seventh B, which would normally be flattened to Bb over a C7 sonority. This is a culturally dissonant concept. A table containing all of Mehldau’s implied key centres can be found in Table 23, Chapter 6.3.4

Mehldau uses crips as consonances, especially stabs (crip no. 1); he also creates contrastive valence by superimposing a cultural consonance (crip) with a horizontal dissonance (L/T) or rhythmic dissonance (M/S). In terms of harmonic destabilisation, Mehldau often substitutes the tonic major chord with either (1) the tonic minor chord, (2) the IIm chord, (3) the IVm chord, or (4) the VII chord. The dominant chord is often replaced with the IIm chord and often Mehldau utilises cycles (particularly the cycle of fourths) as substitutional tools both on the tonic and chords functioning as dominant sonorities. Mehldau also inserts II-V substitutes derived from tritone relationships; an example is shown in Table 21 below; here he substitutes a G7 chord, the fifth chord of C major, with a IIm7-V7 in the tritone-related key of Db.

Table 21: Tritone Reharmonisation

Original Cadence	Dm7	G7	C major7
Substituted Cadence	Dm7	Ebm7-Ab7	C major7

There is no build during the solo of ‘Secret Beach’, instead Mehldau utilises angular melodicism for dissonant effect. In contrast to Mehldau’s solo during ‘Secret Beach’, the outro contains a very effective prolonged build section over a short vamp. During short solos such as ‘Tres Palabras’, ‘Elegy For William Burroughs And Allen Ginsberg’ and ‘Blame It On My Youth’, Mehldau’s improvisation is as considered as in longer solos; in short, smaller solos are still conceptually rich.

From information gleaned from analysis of 10 transcriptions, it is possible to elucidate Mehldau’s normative improvisational concept as (1) introduction to solo via mainly

consonant material (vertical dissonances are the exception to the rule, and ‘Sky Turning Grey (For Elliott Smith)’ is a marked example, where Mehldau employs horizontal dissonant material from the outset), (2) gradual introduction of new dissonant elements (including dissonant both congruent and dissonant to cultural norms), and (3) gradual build to musical climax (or climactic hypermetric waves using space to create expectation) via juxtaposition of dissonances (in particular temporal density, metric asynchronicity, or metric shift (R/D), harmonic destabilisation (O/D), perceptual dissonance (H/D), and linear tonality (H/D), and (4) elongation of music climax predominantly via repetition of motif, blues, crips, melody and other consonances. It is interesting to note that consonant events infused between dissonant events do not reduce the level of climax. This concept is discussed by Burton (2012) as perhaps being counterintuitive to some. In essence, consonant material adds salience to dissonance that succeeds it; similarly, the use of silence/space makes the subsequent notes seem more important.

As a visual summary and to aid clarification, Table 22 shows each of the 10 transcriptions with a summary of their most important improvisational attributes.

Table 22: Summary of Salient Improvisational Attributes

Track Name	Improvisational Attributes
Tres Palabras	Short solo but contains nearly all types of C/D – Melody (O/C) and motif (H/C) throughout – Expressive variation and diminishing dispersal (R/D) at hypermetric cadences – Perceptual dissonance (H/D) and temporal density (R/D) combined for greater affect – More vertical dissonance during second half of solo – Hypermetric dissonance (O/D) even on short solo – Chromaticism (H/D) used as motif and as descending horizontal bridge – Rhythmic consonances to resolve dissonance – Improvisation in waves
Secret Beach	Combines dissonant dyads with disjunct melodicism – Significant melodic or melodically derived motivic use – Nearly no rhythmic dissonance – Significant blues use – Perceptual dissonance does not lead to

	<p>contrastive valence as nearly no dissonance in climax – A static solo heavily relying on the combination of melody, motif, disjunct melodicism, blues material and vertical dissonance</p>
<p>Sky Turning Grey (For Elliott Smith)</p>	<p>Breaks normative schema by strong vertical and horizontal dissonance early on – Precedes hyper-dissonances with rests – Many melodic references – Cultural norms including sideslipping, pentatonics, harmonic generalisation, and blues – Uses temporal density to aid climax – Either maintains C/D relationships within each hypermeter, neither increasing nor decreasing arousal/attention, or builds arousal/attention during the end of each section of the form</p>
<p>Blame It On My Youth</p>	<p>More cultural consonance than other solos – More use of stabs – Less melodic references – More motivic use – Marked amount of romantic melodicism – Some phrases begin with space followed by perceptual easing – Even though it was recorded 20 years ago there is still vertical dissonances with cultural dissonances – No hypermetric dissonance</p>
<p>Highway Rider</p>	<p>Organic consonances via melody – Motif used to bind hypermeters and ease hyper-dissonance – Solos builds in waves with perceptual dissonance at climax – Solo includes metric asynchronicity and metric shift which are juxtaposed onto consonant material adhering to slack theory – Regular use of vertical dissonances even during relatively consonant sections</p>
<p>Anything Goes</p>	<p>No melodic references – Heavy motivic usage primarily based on consonant small 2-beat cells inspired by classical ornamentation – More rhythmic</p>

	asynchronicity than other solos – Consonant/motivic to dissonant/harmonic strategy – Use of hypermetric dissonance
Elegy For William Burroughs And Allen Ginsberg	No motifs – Heavy use of perceptual dissonance to conclude hypermeters, using wave-like contouring, often with temporal density as an aid – Uses vertical ascending consonance with horizontal descending dissonances as strategy – Interjects vertical dissonances by way of ‘wrong’ notes – Melodic consonance combined with vertical dissonance – Major blues scale favoured over the minor – Uses transformational beats
When It Rains	Extensive use of motif and crip – Motifs usually consist of short cells, 2–7 notes in length, often repeated, sometimes developed – Crips are largely diatonic but sometimes combined with linear tonality – Use of space to create expectation – Use of repetition to saturate, creating expectation of change – Climax includes heavy use of contrastive valence including concurrent metric asynchronicity, temporal density, perceptual dissonance, and linear tonality
Ode	Perceptual dissonance via contrapuntal lines – Extensive use of motif – Use of space to outside concept – Hypermetric dissonance – Use of call and response including antiphony – Interesting linear tonality
River Man	Quintessential ‘build’ type solo – Very little melodic material used; motif and blues used instead – Vertical dissonance throughout especially perfect fourth – Chromaticism used throughout – The essence of the solo is (1) introduction to solo via consonant material, (2) gradual introduction of new dissonant elements, (3) gradual build to musical climax via

	<p>juxtaposition of dissonances (in particular metric asynchronicity, harmonic destabilisation, perceptual dissonance, linear tonality, temporal density, and metric shift), and (4) elongation of music climax predominantly via repetition of motif and other consonances.</p>
--	--

Chapter 6. Practice Directions Using the Analytical Framework

6.1. Introduction to Practice Component

Chapters 4 and 5 defined and exemplified an analytical model exploring consonance and dissonance (C/D) found in the music of Brad Mehldau. A Doctor of Musical Arts is a practical doctoral degree and I performed five recitals over the course of four years that demonstrated the practical application of C/D described in this chapter. Burton states that internalisation is essential when learning improvisational tools, as elements of language must be transferred from the conscious to the unconscious mind via repetition. The unconscious mind is much quicker than the conscious one and therefore it is necessary to internalise (via rote) autodidactically driven musical concepts (Burton, 2012). Once this has been achieved then an improviser is free to observe and direct the course of a solo without being restricted by conscious thought processes. Over the course of my study I have internalised the concepts described in this chapter.

Essentially this chapter shows how I have used my study of Brad Mehldau's music to inform my own playing. In general terms I am applying a novel analytical framework of C/D to my own performances, using conclusions drawn from Chapters 4 and 5. Although inspired by Mehldau's work, I perform in a way that avoids exact modelling of Mehldau's improvisational style. For example, I might combine temporal density, metric asynchronicity, harmonic destabilisation, perceptual dissonance, and linear tonality in a personal way, forming phrases that are directly related to me as an improvising musician. Some of the devices that I have within my employ are copies of Mehldau's, and others are derived from my concept of C/D in general.

Chapters 6.2–6.6 describe the use of individual sonorities pertaining to C/D (vertical, horizontal, rhythmic, organic, and cultural). Chapter 6.7 outlines psychological concepts of expectation derived from cognitive studies before Chapter 6.8 illustrates the holistic use of C/D via analysis of a prepared improvisation. Chapter 6.9 outlines compositional tools using C/D. Finally, Chapters 6.10 and 6.11 summarise this chapter and the entire exegesis respectively.

6.2. Vertical C/D

Vertical C/D is a tool that Mehldau uses extensively in his improvisations. I have adapted the following strategies into my playing: single notes, dyads, diagonal C/D, and vertical hyper-dissonances.

6.2.1. Single Notes and Dyads

I add dissonant single notes to a chord (such as a perfect fourth on a major chord or a major third on a minor chord), which helps to form contrastive valence in a line, often at the beginning of a phrase (see Figure 106). I employ mild dissonances such as major seconds at the beginning of solos; these dissonances are diatonic to the harmonic framework. I employ more dissonant intervals such as minor seconds, major sevenths, and flat ninths at the beginning of a phrase to form contrastive valence. On occasion I use single-note dissonances during an exposed passage, possibly at the beginning of a solo or in a ballad; this obvious ‘wrong’ note can be effective if combined with expressive variation and a consonance such as a motif or as part of a lyrical phrase.



Figure 106: Dissonant Single Notes and Dyads

6.2.2. Diagonal C/D

I employ diagonal dissonance by way of arpeggios that may contain elements that are not diatonic to the harmonic framework. An example is a Lydian ascending passage as an opening statement of a phrase. For example, I might play a G LAP over a G minor chord in a II–V–I progression in F major; this is a relatively ‘inside’ sound containing only two ‘wrong’ notes (B and C#). A more ‘outside’ example would be an E LAP over a G minor chord (see Figure 107). An ‘outside’-sounding ascending arpeggio may produce a negative limbic response that is suffixed with a descending figure (immediately reducing dissonance via perceptual easing) and which is either consonant or contains elements of dissonance still to be

resolved. I use both consonant and dissonant arpeggios regularly to extend the range of my phrases towards tessitural limits; when defining the term arpeggio I include any vertical sonority that spells a chord, including creative use of any vertical shape/cell.

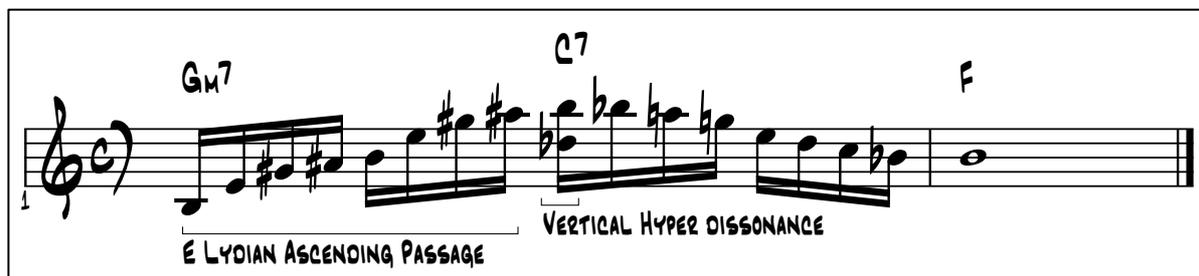


Figure 107: Diagonal Dissonance

6.2.3. Vertical Hyper-Dissonances

I combine the use of dissonant intervals and dissonant single notes forming a vertical hyper-dissonance. For example, I may play a dissonant dyad starting from flat ninth of C7, forming a minor seventh but also spelling the notes Db (flat ninth) and B natural (major seventh). B natural is culturally dissonant to C7 and if played on a downbeat also constitutes a single-note dissonance (see Figure 108). Another example is a phrase beginning with a B natural and A# played together as a dissonant dyad. If used to open a phrase over a C7 chord then it would not only constitute a dissonant dyad by way of a minor second, but the B natural is also dissonant to C7 (also see Figure 108).

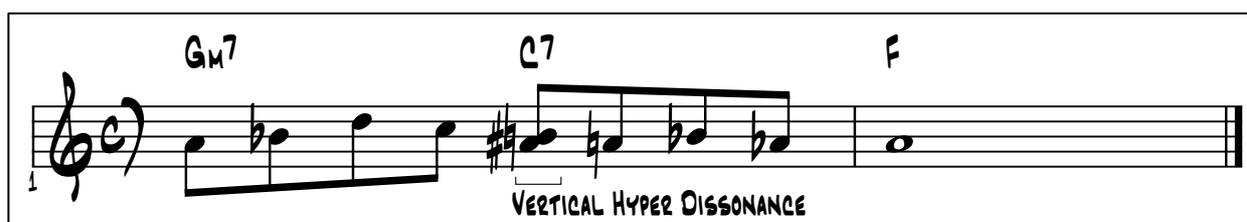


Figure 108: Vertical Hyper-Dissonance

6.3. Horizontal C/D

I have incorporated elements such as melodicism, motif, chromaticism, linear tonality, and perceptual C/D into my improvisational practice.

6.3.1. Consonant and Dissonant Melodicism

I have practised playing conjunct improvisational lines, maintaining or easing dissonance. I have also practised improvising in a melodically disjunct manner, creating diatonic angularity within my line. I have practised employing romantic devices, especially during ballads and other slow tempo works; I am particularly drawn to romanticism in jazz. Romantic devices include leaps of a major or minor sixth, other intervallic skips for drama, use of flat sixths at cadences, lyrical intervallic quality, enhancement of cadential resolution via non harmonic notes, melodic chromaticism, balanced three-part motivic statements, and cadential suspension (see Figure 109).

The figure shows two staves of musical notation in treble clef with a 4/4 time signature. The first staff begins with a Gm7 chord. It contains several phrases: a conjunct line labeled 'CONJUNCT AND LYRICAL QUALITY', a phrase with 'LARGE INTERVALLIC LEAPS', a phrase with a 'C7 MINOR SIXTH LEAP', and a phrase with 'MELODIC CHROMATICISM'. The second staff begins with an F chord. It contains a phrase with 'CADENTIAL FLAT SIXTH', a phrase with 'THREE-PART MOTIVIC STATEMENT', a phrase with 'MINOR SIXTH LEAP', and a phrase with 'CADENTIAL SUSPENSION'.

Figure 109: Romantic Devices

6.3.2. Motif and Call and Response

I have practised improvising using motif in isolated blocks; developmental tools such as sequence, change of mode, contrary motion/inversion, addition/subtraction, call/response, augmentation/diminution are important. However, for my practice, an intuitive approach has been applied to motif and motivic development; I try and play what I hear. In terms of source material, I use small motivic cells inspired by melodic fragments, classical ornamentation, or rhythmical feet such as dactyls etc. (see Figure 110).

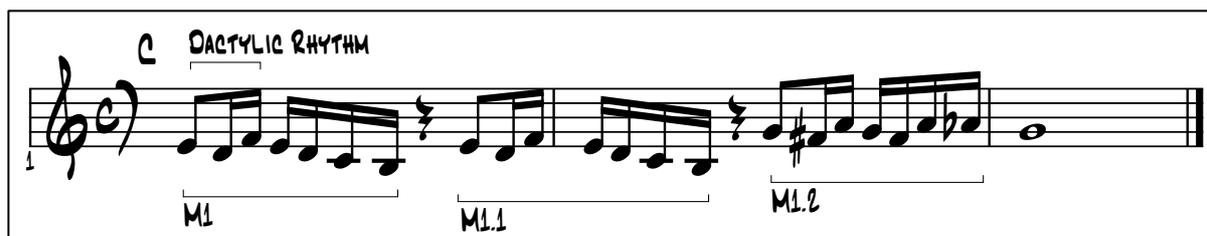


Figure 110: Dactylic Motif

6.3.3. Chromaticism

I have practised the creative use of chromaticism, in particular using it as a source of melodic material. Challenges involved in creating chromatic melodic lines are not small – chromaticism is the antithesis of diatonicism. One way that chromatic melodicism can be achieved in improvisation is by separating sections of chromaticism with larger intervals such as a minor/major third. Exaggerated use of chromatic approach tones is another way, or by creating lines containing chromatically alternating contrary motion. In all cases, repetition of any inherently dissonant sonority will increase predictability which in turn provides the listener with positive valence through a successful prediction effect (see Figure 111). Less creatively, I also use chromaticism to elongate dissonant passages and to join elements of C/D together. For example, the dissonance of an ascending arpeggio may be prolonged via the use of chromaticism before a consonant sonority relieves dissonance to consonance.

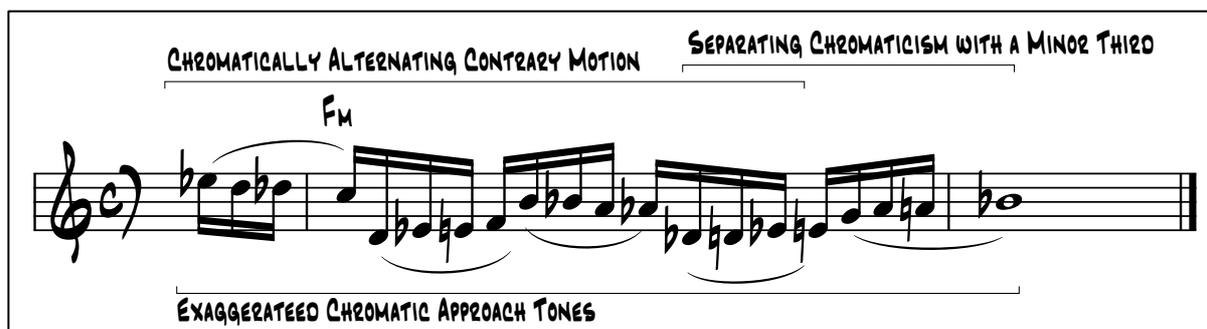


Figure 111: Chromaticism

6.3.4. Linear Tonality

I combine linear tonality with cultural consonances and dissonances including anticipation, sideslipping, and substitution using modes from major, harmonic, and melodic minor scales. Table 23 shows examples of linear tonality that Mehdau uses; some of these tonalities confirm to normative practice (such as tritone substitution). As described earlier, other tonalities, when superimposed on a chord, contain many elements of consonance combined

with some dissonance. An example of this is an A major played over C7; the most dissonant note is the B natural over the C7. Other examples of linear tonality are more extreme; an A major played over C minor harmony is very dissonant (B, C#, E, F# and G# are all dissonant single notes in C minor). In all cases, the important aspect is how the dissonance is resolved; forward motion is key here (Galper, 2005). Resolution to consonance is more effective through strong dissonances immediately prior to resolution onset; this is why musical climaxes are so effective, containing extreme amounts of dissonance followed by eventual release to consonance.

Table 23: Linear Tonality

Chord	Linear Tonality
C major	Eb minor, Eb major, E major, C minor, B major, A major, Ab major, F# major, F# minor
C minor	A major, Ab7, Db major, E minor, B major, B minor
C minor7b5	B minor
C7	A major, A minor, Db major, Ab major, Bb minor, Ab minor, Db7, Db minor, F# minor, E major, E7, B major, B minor, Eb minor blues

6.3.5. Perceptual Tonal Dissonance

I have practised the use of perceptual dissonance via the use of (1) extremes in tessitura range, (2) performance of two or more simultaneous lines (e.g. counterpoint), and (3) textural density (e.g. chordal improvisation). This form of dissonance involves strong technique (when considering tessitura limits) and strong independence when playing two or more simultaneous lines (Figure 112).

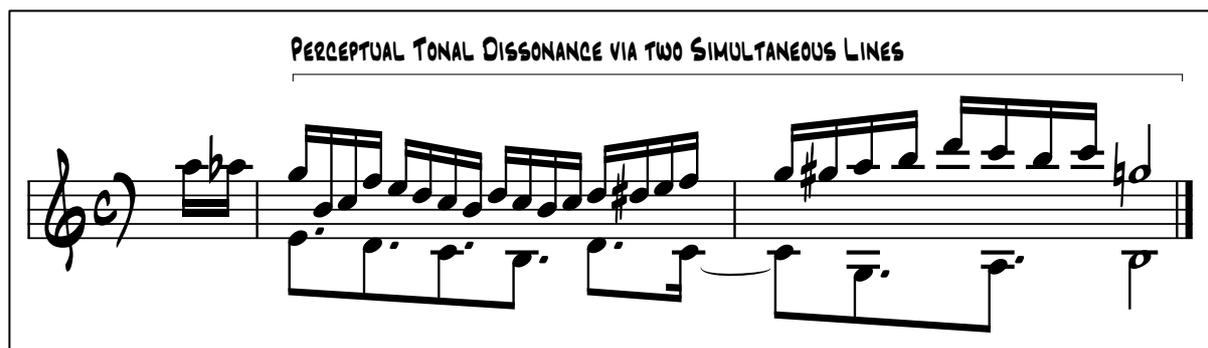


Figure 112: Perceptual Tonal Dissonance

6.4. Rhythmic C/D

I have practised rhythmical dissonances to not only improve the depth of my performances, but also to enable me to enhance holistic forms of C/D. Rhythmic C/D can be divided into two types: (1) rhythmic C/D that adds depth and colour to a solo such as diminishing dispersal and expressive variation, and (2) rhythmic C/D that helps musical climax such as metric asynchronicity, metric shift, and temporal density.

6.4.1. Diminishing Dispersal and Expressive Variation

I have practised superimposing straight feel on swing meter, and swung feel on straight meter. I have also practised ‘laying back’ or ‘pushing forward’ phrases or parts of phrases. These devices are particularly effective during slower tempos and/or during more consonant sections of improvisation, such as the beginning of a solo. The effectiveness of playing a swing feel over a straight groove, for example, is enhanced when the rhythm section remains where it is in the beat; dissonance formed can be considered akin to tension when stretching a rubber band. If the groove is maintained then dissonance is maintained due to the metric rub between rhythm section and soloist. The same can also be said for playing behind or ahead of the beat.

Another important aspect of expressive variation is its use at cadence points or at points of perceived importance. Perhaps the quintessential example is a ritard during a cadence. Huron (2006) notes, ‘the final cadence involves approaching the most predictable pitch, the most predictable chord, and the most predictable metric moment. High predictability provides an opportunity to heighten the tension response and thereby increase the pleasure evoked by contrastive valence. In performed music, highly marked ritards may occur just prior to the resolution of a tendency tone but this resolution may not necessarily coincide with an

important structure division. The resolution of a 4–3 suspension, for example, is often accompanied by slowing down, even though the moment is not closural and does not delineate a structural boundary' (Huron, 2006, p. 316). With that in mind it is possible to make important phrases evoke a certain longing via subtle ritards played within the metric framework.

Diminishing dispersal is essentially a rhythmical cadence in its own right; initial deviation from the tactus creates dynamic metric dissonance that slowly resolves over time. Used in this manner it can easily be combined with cadential tonality, for example adding salience to line played over a II–V–I progression (see Figure 113).



Figure 113: Diminishing Dispersal

6.4.2. Metric Asynchronicity/Metric Shift and Temporal Density

I have practised improvising with no metric feel to create metric asynchronicity; the most effective way that this concept can be applied is by combining it with a strong transformational beat at the end of the phrase, re-establishing the tactus. I sometimes employ metric shift during the latter half of a solo to increase arousal/attention and temporal density as a fundamental tool during musical climaxes and also between hypermetric divisions. Like other forms of C/D, temporal density can be used as part of a hyper-dissonance (e.g. it can be combined with linear tonality or chromaticism) or adhere to slack theory (Liebman, 2005).

6.5. Organic C/D

As described in Chapter 4, organic C/D relates directly to the strophe or form of the composition from which the improvisation has been derived. Any section of music that correlates with the melody, harmonic structure, or hypermeter can be considered a consonance; contrarily, any section of music that violates the strophe can be considered a dissonance. Organic consonances that I use are melodic quotes; organic dissonances are hypermetric dissonance and harmonic destabilisation.

6.5.1. Melodic Quotes

A quotation from the melody (either in full, rhythmically, melodically, or via alteration that preserves identity of the quote) is a musical consonance. I employ this organic consonance as (1) an opening statement at the beginning of a solo, using elements of melody from which to derive further improvisation material, and (2) as a consonance between dissonances or hyper-dissonances. A melodic quote is particularly useful during the opening improvisational gambit. I sometimes try to derive some of my improvisation from the head, quoting from the melody then developing those melodic fragments in a similar way that I develop motifs. I use melodic quotes to return to the melody after a period of hyper-dissonance in a similar way that I may employ motivic consonance. In this regard motif and melodic quotes are quite similar, both being used to springboard ideas and relieve dissonances, but a melodic quote is a dynamic reminder of the organism and arguably has a stronger perceived effect on an audience.

6.5.2. Hypermetric Dissonance

I employ hypermetric dissonance during both the initial and latter stages of a solo. Like diminishing dispersal and expressive variation, hypermetric dissonance is a tool that adds depth to an improvisation without significantly aiding a musical climax. The subtle effects of hypermetric dissonance contribute to musical arousal/attention, helping to alleviate predictability of improvisational lines. Hypermetric dissonance should deviate from the hypermeter sufficiently enough so that it cannot be misconstrued as an anacrusis or a phrase extension. For example, I may utilise hypermetric dissonance by beginning lines that start roughly 4 bars into an 8-bar hypermeter. Alternatively, I may simply choose to elongate a phrase by 4 bars into an 8-bar hypermeter.

6.5.3. Harmonic Destabilisation

Harmonic destabilisation plays an important role in my improvisational style. Currently it is a tool that I use to aid a musical climax during the latter part of a solo. Isolated sonorities and chord sequences are equally important for me. In terms of isolated chords, examples of concepts that I use are listed in Table 24.

Table 24: Harmonic Destabilisation – Static Chords

Original Chord	Harmonic Destabilisation
Dominant Seventh	Play the diatonically related IIm7 chord (e.g. F7 becomes Cm7/F)
Dominant Seventh	Replace with a dominant seventh flat 9 (e.g. F7 becomes F7sus9)
Major Seventh (Tonic)	Play the related IIm7 chord (e.g. Cmaj7 becomes Dm7/C)
Major Seventh (Tonic)	Sharpen the fifth of a major seventh chord (e.g. Cmaj7 becomes Cmaj7#5)
Major Seventh (Tonic)	Play II major chord (e.g. C major becomes D major/C)
Major Seventh (Tonic)	Replace with a minor chord (e.g. C maj7 becomes Cm7)
Major Seventh (Tonic)	Replace with a dominant chord (e.g. C major becomes C7)
Major Seventh (Tonic)	Replace with a bVIIm7 (e.g. C major becomes Abm7/C)
Minor Seventh	Replace with a major chord (e.g. Cm7 becomes Cmaj7)
Minor Seventh	Replace with a minor 6/9 chord a fourth above (e.g. C minor becomes Fm6/9/C)
Minor Seventh	Replace with a minor chord a tone below (e.g. Cm7 becomes Bbm7/C)

I sometimes try to link these isolated chords together using rules of harmonic economy. For example, C–Gm7–C7–F–Fm7–Bb7–C may become Gm/C–Fm7/G–Bbm/C–Cm7/F–Bbm/F–Abm/Bb–D/C, creating a strong sense of harmonic destabilisation. At other times I may simply hold one chord for a long period, essentially replacing the chord sequence with a modal passage. The bass player may choose to join my idea or outline the original changes; both choices are effective.

Chord sequences that I use to create harmonic destabilisation are listed in Table 25. I utilise logic behind any harmonic destabilisation; this is because a sense of logic provides a backbone to the process. Without a sense of logic, any superimposition sounds too random, like it does not belong. Logical harmonic destabilisation may include use of easily recognisable harmonic sequences or follow the pattern of the melody or bassline.

Table 25: Harmonic Destabilisation – Chord Sequences

Original Chord/Chord Sequence	Harmonic Destabilisation
C major or diatonic chords found within C major (e.g. C–Am–Dm–G7)	I–II major–III major–VI–II major–V–I (e.g. C–D–E–F–G–C)
As above	Descending minor chords (e.g. Gm7–Fm7–Ebm7–Dm7)
As above	Ascending minor chords (e.g. Gm7–Am7–Bbm7–Bm7)
As above	II–V’s descending in tones (e.g. Gm7–C7–Fm7–Bb7–Ebm7–Ab7–G7–C)
As above	Triads played through common sequences with occasional disjunct intervals (e.g. C–F–Eb–Ab–D–A–D–C#–G–A–F–B–C)
Dm7–G7–C major 7	Dm7–Ebm7–Ab7–G7–C major

As with other larger-scale dissonances, focus is placed on the resolution of harmonic destabilisation; here parallels can be drawn with a transformational beat. A transformational harmonic return during the downbeat of a hypermeter instantly transforms harmonic dissonance into harmonic consonance, evoking a strong limbic reversal. Without this reversal, the audience may perceive the transition from organic dissonance to organic consonance as weak or as a mistake.

6.6. Cultural C/D

Culturally consonant elements contained within my improvisation include regular use of blues passages, crips (idiosyncrasies influenced by Mehl dau and others), and some formulaic language. Culturally dissonant sonorities that I use include triads and other simple chords (especially in root positions and second inversion). These triads are axiomatically consonant

to anyone encultured to Western tonal music but when heard within the tradition of jazz improvisation they sound culturally dissonant.

6.6.1. Blues

I often utilise both the major and minor blues scales, but not necessarily as individual sonorities. The sharp fourth and flat third are often referred to as the blue notes; Mehldau often combines these notes with minor second intervals derived from either the major or the minor blues scale. For example, playing an E and an Eb together followed by an E and F together then returning to an E and Eb is dissonant due to the minor seconds but is largely derived from the major blues scale in C (C–D–Eb–E–G–A–C) with only F falling outside the scale. If the dyads ascend using minor seconds then they start to utilise the minor blues scale too (C–Eb–F–F#–G–Bb–C); for example F and F# to F# and G (see Figure 114). Burton (2012) notes that blues notes can be simply incorporated into Mixolydian or Ionian passages. I use blues-like sounds as a cultural consonance, sometimes combining them with chromatic or other dissonant intervals for contrastive valence.

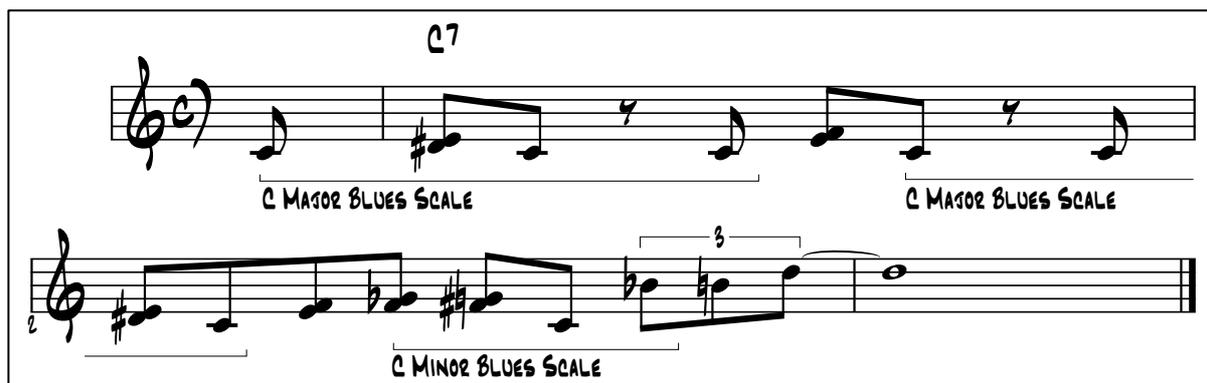


Figure 114: Blues

6.6.2. Formulaic Improvisation

Fragments of formulaic improvisation found in my solos may include (but are not limited to) devices such as CMAR, CESH, 3-b9 movement, enclosure (diatonic and chromatic), triad pairing, upper structure, octatonic scales, hexatonic scales, modes from melodic and harmonic minor, pentatonics, quartal improvisation, and 4-note groupings.

6.7. Music and the Psychology of Expectation

Understanding masterful manipulation of consonance and dissonance has required an understanding of (1) cognitive processes derived from enculturation to Western tonal musical principles, (2) biological impulses inherent to human nature, and (3) how these relate to musical perception on both small and large scales. It is not within the scope of this exegesis to document a full enquiry into cognitive and psychological processes; as mentioned earlier, David Huron (2006), continuing the work of Leonard Meyer (1956), has provided an excellent survey of this field. This section summarises the cognitive elements that help me manipulate C/D in my own improvisation and composition, elements that played an important role in informing the direction of the practice-directed component of this degree.

6.7.1. Prediction Response/Effect

I employ predictable events such as organic and cultural consonances, increasing predictability and evoking positive valence either through local repetition (organic consonance) or through cultural reiteration (cultural consonance). I also employ regular repetition in my improvisation by way of vamp, motif, and melodic organicism. An improviser who employs a large amount of cultural consonance would be potentially creating a large amount of predictability that may in turn evoke very positive emotional responses from an encultured listener. However, I am an improviser who wishes to create spontaneous melodically derived improvisation; my music may not appeal to a listener requiring a high level of cultural familiarity.

6.7.2. Reaction Response and Appraisal Response

Musical surprises that I have within my employ include the use of unexpected harmonic norms (harmonic destabilisation), linear tonality, perceptual dissonance (tessitural surprises and counterpoint, etc.), dynamic surprises, cultural dissonance, vertical dissonances, and rhythmic dissonances such as metric shift and metric asynchronicity, to name a few).

6.7.3. Contrastive Valence/Limbic Contrast

As the ultimate aim of my music is to produce a positive affect for the listener, one of my fundamental tools has to be the use of contrastive valence. Throughout this exegesis this phrase has been used to describe events that produce a contrasting limbic response. In many ways, contrastive valence is everywhere. A listener encultured to Western tonal music learns

that a *home-away-home* paradigm exists in such music; in short, a tonality is heard (tonic/home) then an event happens that creates a desire to return to that feeling (dominant/away), and a sense of release is felt when that sonority changes back to the tonic (home). The contrastive state built on the juxtaposition of a dominant and tonic sonority in a cadence is a good example (e.g. Cmaj7–Dm7–G7–Cmaj7). As I have alluded to in previous chapters, there are many ways that a performer can evoke a sense of contrastive valence. The way that Mehldau uses contrastive valence was demonstrated in Chapter 4.7 and my holistic improvisational concept (largely informed by contrastive valence) will be exemplified in Chapter 6.8. Table 26 summarises the theoretical possibilities of contrastive valence that I have explored via practice-directed research.

Table 26: Contrastive Valence

Type of Contrastive Valence	Description
Diminishing Dispersal	Creates contrastive valence as metric asynchronicity gradually resolves to tactus placed metric synchronicity.
Dissonance–Consonance	For example: Vertical dissonance may be followed by a horizontal consonance. ‘Aside from climaxes, in most circumstances where listeners experience contrastive valence, the transition from negative to positive is accomplished quickly – typically in less than half a second. It is this rapid transition that makes it difficult for listeners to become aware of the initial negative limbic response’ (Huron, 2006, p. 326).
Climax (or hypermetric climax)	Multiple dissonances occurring simultaneously or sequentially that are finally resolved on cadential closure ‘The climax may represent the epitome of contrastive valence in music making. The high sensory dissonance, high physiological arousal, high physiological arousal, high physiological stress, and vivid feelings of anticipation combine to set the stage for a dramatic limbic reversal’ (Huron, 2006, p. 326).
Ritard	Helps a contrastive valence become even more contrastive by delaying onset of resolution. The same can be said of most expressive variation (such as laying back on the beat).

	‘Performers often hesitate or slow at points of high certainty, such as phrase endings, downbeats, hypermetric downbeats, tendency tones, and final cadences’ (Huron, 2006, p. 328).
Suspension/Delay	Similar to ritard but using harmonic/melodic instead of rhythmic devices. Another method to add to contrastive valence. ‘By delaying the advent of the expected event, the state of anticipation can be sustained and so made more salient for a listener... other delaying tactics include interposing embellishments, chords... and other interjections’ (Huron, 2006, p. 328).
Use of Space	Similar to ritard, suspension/delay. Use of space in improvisation breaks habitual expectations. ‘Tension-related contrastive valence can be evoked by delaying the onset of highly expected events. This can be achieved through simple pauses’ (Huron, 2006, p. 367).

6.7.4. PRA

The cognitive elements described in this section have helped me manipulate C/D in my practice-directed exploration into music, but my own sense of aesthetic appeal was the final judge during practice and performance. Huron reminds us that ‘in the context of music making, the prediction effect and contrastive valence are psychological tools, not aesthetic imperatives’ (p. 240). These caveats notwithstanding and all things being equal, one can conclude that music that evokes a positive limbic affect either through prediction response and/or contrastive valence is generally a good thing, and for the purposes of both this exegesis and my recitals this has been essentially my primary goal.

To conclude this cognitive enquiry, it has been demonstrated that an understanding of how music is perceived by an audience will increase affect. Huron (2006) states, ‘Imagining how others might respond is one of the creative engines available to performers and composers. When composing a composer will sometimes imagine how people are likely to respond to a particular passage or device. Similarly, performers will sometimes imagine the experience of listeners, or even the responses of friends or critics’ (p. 328).

6.8. Holistic Concept

Thus far this chapter has demonstrated individual elements of C/D that are within my command as an improviser. This section shows how these elements of C/D combine to form phrases, hypermeters, choruses, and solos. Mehlau's normative improvisational concept, which was presented at the end of Chapter 5, is (1) introduction to solo via mainly consonant material (vertical dissonances are the exception to the rule), (2) gradual introduction of new dissonant elements (including dissonant both congruent and dissonant to cultural norms), and (3) gradual build to musical climax (or climactic hypermetric waves using space to create expectation) via juxtaposition of dissonances (in particular temporal density, metric asynchronicity or metric shift (R/D), harmonic destabilisation (O/D), perceptual dissonance (H/D), and linear tonality (H/D), and (4) elongation of music climax predominantly via repetition of motif, blues, crips, melody and other consonances.

The clearest way to demonstrate my holistic concept of improvisational C/D is by composing a prepared solo that demonstrates application of my normative improvisational approach. I have chosen a simple 4-bar vamp (Dm7 | Fm7–Bb7 | Cmaj7–E7 | A7) and composed a simple melody to accompany the sequence (see Figure 115).

Figure 115: Holistic Concept – Melody and Harmonic Vamp for Prepared Solo

This solo comprises of 10 choruses using this 4-bar vamp; essentially it demonstrates C/D using the devices described above, in accordance with the framework derived from studying Mehlau's improvisation. A transcript of this prepared solo is provided in Figures 116–119 .

HOLISTIC CONCEPT

12/8 BALLAD $\text{♩} = 60$

The score consists of ten staves of music in 12/8 time, with a tempo of 60 beats per minute. The key signature has one flat (Bb). The music is divided into four measures, each starting with a boxed number (1, 2, 3, 4). Various chord voicings and fingering instructions are provided throughout the score.

Staff 1 (Measures 1-2): Chords: $Dm7$ (3), $Fm7$ (3), $Bb7$, C/C . Voicings: $H/C (M1)$, $H/C (M1.1)$. Fingering: 3.

Staff 2 (Measures 3-4): Chords: $Cmaj7$, $E7$ (3), $A7$, $H/C + R/D (D/D)$. Voicings: $O/C (M)$, $O/C (M)$. Fingering: 3.

Staff 3 (Measures 5-6): Chords: $Dm7$, $Fm7$, $Bb7$ (3), $Cmaj7$, $E7$ (3). Voicings: $C/C (C)$ SPACE, V/D , $C/C (C)$, $H/C (M2)$, $H/C (M2.1)$.

Staff 4 (Measures 7-8): Chords: $A7$, H/C , C/C , V/D , $Dm7$ (6). Voicings: H/C , C/C .

Staff 5 (Measures 9-10): Chords: $Fm7$, C/C , $Bb7$ (3), $Cmaj7$, $E7$. Voicings: $R/D (M/A)$, $R/D (D/D)$.

Staff 6 (Measures 11-12): Chords: $A7$, V/C , $Dm7$ (4), C/C , C/C , $H/C (M3)$, $H/C (M3.1)$, $H/D (C)$. Voicings: $H/C (M3)$, C/C , $H/C (M3.1)$.

Staff 7 (Measures 13-14): Chords: $Fm7$, $Bb7$ (3), C , $E7$. Voicings: $H/C (M4)$, $H/C (M4.1)$, $V/D (D) + R/C (T/D)$, $R/C (T/E)$, $O/C (M)$.

Staff 8 (Measures 15-16): Chords: $A7$. Voicings: $H/D (L/T) + H/D (P/E) + R/D (T/D)$, $H/D (C)$.

Figure 116: Holistic Concept – page 1

HOLISTICCONCEPT/2

17 DM7 R/C (T/B) H/D (P/D) H/D (L/T) H/D (C)
 V/C (O) V/C (O)

18 FM7 H/D (C) Bb7 C/C C/C
 H/C H/C (M5) H/C (M5.1)

19 CMaj7 C/C H/D (C) E7
 $\text{H/C (M5.2) + H/C (P/E)}$ V/C (O) $\text{V/C (O) + H/D (P/D) - H/C (P/E)}$

20 **SPACE** $\text{R/C (T/B) + R/C (T/E)}$ R/C

21 DM7 R/D (M/S)

22 FM7 Bb7 C/D
 R/D (M/S) O/D (H/W/D) O/C (M)

23 CMaj7 E7

24 A7 V/D

Figure 117: Holistic Concept – page 2

HOLISTICCONCEPT/3

7
 DM7
 H/C + R/D (M/S)
 O/D (H/A/D)

25

26
 FM7
 H/D (P/D) + H/C
 Bb7
 H/D (C)

27
 Cmaj7
 E7
 H/D (C)

28
 A7
 H/D (C)
 H/C (P/E)

8
 DM7
 V/D
 C/C (S)
 V/D
 V/D
 V/D
 V/D

29

30
 FM7
 V/D (D)
 H/D (C)
 H/D (C)
 H/D (C)
 H/D (C)
 H/D (C)
 H/D (C)
 Bb7

31
 Cmaj7
 H/D (C)
 H/D (C)
 E7
 H/D (C)
 R/D (T/D)
 R/D (T/E)
 V/D + C/D

Figure 118: Holistic Concept – page 3

HOLISTIC CONCEPT/4

O/O (H/A/D) + R/D (M/A) O/O (H4/D) R/C (T/B)

32 **A7** **Dm7** **Fm7** **Bb7** **SPACE**

R/D (T/D) + H/D (P/D) - H/C (P/E)

35 **Cmaj7** **E7** **V/C (D)** **H/D (L/T)**

36 **A7** **C/C (C)** **H/C** **C/C**

37 **Dm7** **Fm7** **Bb7** **Cmaj7** **E7** **O/C (M)** **10** **11**

40 **A7** **Dm7** **11**

Figure 119: Holistic Concept – page 4

6.8.1. Observations

Chorus 1 begins with a 4-beat motif (M1) using the first two beats of the melody (O/C [M]). The motif is transposed (and modified) up a minor third in bar 2 (M1.1); the motif concludes with a cultural consonance by way of a descending half-whole diminished phrase that resolves at bar 3 beat 1. The resolution is via a culturally consonant ‘backdoor’ progression (IVm7–bVII7–I). At bar 3 beat 3 a vertical dissonance is heard by way of an unprepared sharp ninth (G) over E7; this vertical dissonance resolves to a vertical consonance spelling E7 for the remainder of the bar. At bar 4 an organic consonance by way of three melodic notes is played (the second note ornamented using a mordent), followed by the combination of diminishing dispersal and conjunct melodicism (based on a turn) that resolves at bar 5 using a

pair of culturally consonant stabs at beat 1. At bar 4 beats 1–2 a culturally consonant 3rd to b9 device is employed.

Chorus 2 begins with nearly 5 beats of space (acting as an emotional amplifier), followed by a mild vertical dissonance, then a pair of stabs at bar 6 beat 3. A second motif (M2) is played at bar 7 beats 1–2 and repeated (and transposed to fit E7) at bar 7 beats 3–4. At bar 8 a horizontal consonance is followed by a cultural consonance at beat 2 (3rd to b9–C# to Bb), and a vertical hyper-dissonance at beat 4 via the combination of a major 7th (C# and C) and an unprepared #9th (C natural over A7).

Chorus 3 begins with the combined usage of diminishing dispersal (bar 9 beat 1–bar 10 beat 4) and metric asynchronicity (bar 9 beat 1–beat 10 beat 2). At bar 10 the culturally consonant Bb half-whole diminished scale descends for most of the bar. The rhythmical hyper-dissonance created during bars 9–10 is resolved at the beginning of bar 11 with a rhythmically consonant 2-beat motif (M3), which is repeated (and transposed) over E7 during beats 3–4. The hyper meter concludes with vertically consonant material built from A7b9.

Chorus 4 (bar 13) begins with a conjunct melody (H/C) based on a combination of enclosure (C/C) and contrary motion; the phrase is suffixed at bar 13 beat 4 with a descending chromatic passage. At bar 14 a fourth 1-beat motif (M4) occurs at beat 1 and develops at beat 2; bar 14 concludes with a vertically dissonant E Lydian ascending passage combined with temporal density during beat 4. Temporal density eases at bar 15 beat 1, and at beat 3 an organic consonance by way of melody is heard until bar 16 beat 1. After the small melodic fragment at bar 16 beat 1, linear tonality of Db major is played using temporal density and perceptual easing as the line descends during beats 2–4.

Chorus 5 employs a large amount of temporal density, spanning from bar 17 to bar 19; this is combined with perceptual dissonance via tessitural extremes that are either maintained (bar 18) or decrease/increase (bar 19). Chorus 5 marks the beginning of a musical climax; climaxes contain a large amount of contrastive valence and in this case, chorus 5 contains many elements of C/D. In addition to temporal density and perceptual dissonance/easing, at bar 17 beat 2 two diagonal vertical consonances are heard. At beat 3 linear tonality of E major is spelt over Dm7; this is followed by a descending chromatic passage for the remainder of the bar. At bar 18 a diatonic horizontally consonant line is heard, followed by an ascending chromatic passage at the end of beat 2. A 1-beat motif (M5) is played at beat 3 and repeated (M5.1) at beat 4 (using Bb half-whole diminished harmony); the motif is heard

again at bar 19 (M5.2), combined with a culturally consonant enclosure and an ascending horizontal line into bar 19 beat 2. Culminating the chorus, an ascending vertical diagonal consonance is heard at bar 19 beats 3–4, spelling E7b9 before a strong transformational beat. Temporal easing and space occurs at bar 20.

Chorus 6 begins with a rhythmic dissonance via a metric shift during bar 21 as semiquavers are clearly organised into 5-note groupings. The same metric shift occurs during the first half of bar 22, and at bar 23 the melody is heard (albeit more temporally dense). Contrastively, the organic consonance created by melodic use is combined with culturally dissonant triads (bar 23 beat 1), some mild harmonic destabilisation (D over E7) at bar 23 beat 3, and finally a dissonant triad at bar 24 beat 1. The contrastive nature of this line helps to maintain the climax created during chorus 5.

Chorus 7 begins (bar 25) with a line containing horizontal consonance (via conjunct melodicism) and rhythmic dissonance (via a metric shift using triplets grouped into 4). At bar 26 organic dissonance occurs (via harmonic destabilisation) as E major–F# major–G# major (heard consecutively) are played over an F minor chord. The line is supported with harmony in the left hand. Perceptual dissonance (via two concurrent lines) is heard from bar 27 beat 1 to bar 28 beat 2, with perceptual easing occurring at the end of bar 28.

A blues figure is heard at bar 29, the beginning of chorus 8; this blues figure comprises of both the D minor blues scale and the D major blues scale and contains regular use of minor second-based vertical dissonances. At bar 30 beat 1 a vertically dissonant D Lydian ascending passage is played over Fm7, followed by a long chromatic passage containing descending chromaticism grouped into phrases that gradually ascend during the bar. In addition, during bar 30 temporal density is also increased. Bar 31 comprises of chromatic melodic material, using phrases that are grouped in four semiquaver groupings moving in contrary motion; during this bar, temporal density has eased in comparison with bar 30. A vertical and cultural dissonance is heard at bar 31 beat 3 as a major seventh (Eb) is spelt over E7; as this major seventh doesn't resolve to the dominant seventh, it is also a cultural dissonance. A combination of harmonic destabilisation and metric asynchronicity begins at bar 31 beat 4 and lasts until bar 33 beat 4, creating hypermetric dissonance into the next chorus (due to the relatively slow tempo of this piece). Table 27 shows the harmonic destabilisation found in bars 32–33 of the solo.

Table 27: Harmonic Destabilisation of bars 32–33 of Holistic Concept

A7	Dm7
A – D – E – D – F – Bb – Eb	Eb – Ab – Db – Eb – B – E

As discussed, chorus 9 begins with a combination of hypermetric dissonance, harmonic destabilisation, and metric asynchronicity, which is resolved via a transformational beat at bar 34 beat 1. Space is employed from bar 34 beat 2 to bar 35 beat 2. The final phrase of the solo is played from bar 35 beat 3 to bar 36 beat 4 and consists of a combination of temporal density, perceptual dissonance/easing, a vertical consonant Lydian ascending passage (bar 35 beat 3), linear tonality via anticipation to A7 (bar 35 beat 4), a Mehltau crip no. 4 (bar 36 beat 1), an ascending horizontal consonance (bar 36 beat 2), and finally a descending passage based on the culturally consonant D harmonic minor scale. This prepared solo concludes with a restatement of the melody during chorus 10, essentially resolving all forms of dissonance: vertical, horizontal, rhythmic, organic and cultural.

6.8.2. Conclusions

This prepared solo adheres to the analytical model as described in this exegesis. The solo includes heavy use of both motif/melody (and some blues material) to (1) begin the solo and (2) to elongate music climax. Vertical dissonance is heard throughout. Other dissonances are gradually introduced, building climactic hyper-dissonant waves and using space to create expectation. In terms of music climax, the solo incorporates temporal density, metric asynchronicity, metric shift, harmonic destabilisation, perceptual dissonance, and linear tonality creating hyper dissonances. Diminishing dispersal and hypermetric dissonance occur but do not significantly add to the sense of climax – they are used more as expressive tools.

6.9. Compositional C/D

This section details some of the ways in which I have used C/D in my compositions. It is divided into subsections pertaining to vertical dissonance, conjunct melodicism/romanticism, motif, organic consonance and dissonance, and contrastive valence.

6.9.1. Vertical Dissonance

Figure 120 shows bars 33–40 of my composition ‘Mayaguez’. ‘Mayaguez’ uses the chords from a Mehl dau composition entitled ‘Jam’ (*Where Do You Start*, 2012) and this sequence is developed in a similar way to ‘Kurt Vibe’ (*Ode*, 2012), so that ‘Mayaguez’ follows an AABC-vamp form, where C is simply a reharmonisation of A and sharing the same key centre. Figure 120 is the C-section and contains two vertical dissonances. The first is at bar 35; a C is played over an A7#9 chord, spelling an unprepared #9 over a dominant sonority. The second vertical dissonance can be found at bar 37; here both the chord and melody include a natural 11th over a dominant chord.

Figure 120: Vertical Dissonance – ‘Mayaguez’ – bars 33–40

Figure 121 is an excerpt from my composition ‘Doris’. ‘Doris’ is a simple composition featuring the combination of a rhythmically active repeated 1-bar comp, and a slow-moving, almost fully diatonic, harmonic progression. The final 4 bars of this progression are contrafact. Two vertical dissonances can be found: a D7add11 chord at bar 15 (a vertical dissonance by itself) and a G natural played over a D7 chord at bar 16 (another perfect fourth dissonance).

Figure 121: Vertical Dissonance – ‘Doris’ – bars 13–20

6.9.2. Conjunct Melodicism/Romanticism

As discussed in Chapter 6.3.1, romantic musical elements include leaps of a major or minor sixth, other intervallic skips for drama, use of flat sixths at cadences, lyrical intervallic quality, enhancement of cadential resolution via non harmonic notes, melodic chromaticism, balanced three-part motivic statements, and cadential suspension. Figure 122 shows the first eight bars of my composition ‘Amelie’. This is a ballad played in a quasi-stride style with a strong melodic contour and functional harmonic movement at its core. The 32-bar form is divided into three asymmetrical sections (lengths of 8, 12 and 12 bars respectively). Like ‘Elegy For William Burroughs And Allen Ginsberg’ (*Elegiac Cycle*, 1999), ‘Amelie’ has a lament-like quality; it shares a similar 19th-century romantic feel.

Romantic devices include a three-part motivic statement (bar 2 beats 2–4), intervallic skips (bar 2 beats 1–2 and bar 6 beats 3–4), melodic chromaticism bar 6 beats 1–2 to bar 7 beat 1), and an interval of a major sixth (bar 8 beat 1).

Figure 122: Conjunct Melodicism/Romanticism – ‘Amelie’ – bars 1–8

Another romantic example can be found during the first 16 bars of my composition ‘21-12’ (Figure 123). ‘21-12’ has a 19th century romantic leaning and is entirely based on one rhythmic and melodic motif. Like Mehlau’s works, this composition includes both expected and unexpected modulations; it traverses the keys of F major, D minor, Bb major, A major and D major via functional cadences. The melody is highly lyrical, using chromaticism and extensions to thicken the harmonic palette. The form is 43 bars in length, and consists of 16-, 21- and 6-bar sections.

Romantic devices include balanced three-part motivic statements (bars 2–5, bars 6–9 and bars 10–13), and melodic chromaticism (e.g. bar 3 beat 4–bar 4 beat 1).

The image displays a musical score for Figure 123, consisting of four staves of music in 3/4 time. The first staff (bars 1-4) features chords Fmaj7, Em7(b9), and A9(#11), with annotations for 'MELODIC CHROMATICISM' and 'BALANCED THREE-PART MOTIFIC STATEMENTS'. The second staff (bars 5-8) features chords Dm11, Cm11, and F#7(b9), also with 'MELODIC CHROMATICISM' and 'BALANCED THREE-PART MOTIFIC STATEMENTS' annotations. The third staff (bars 9-12) features chords Bbmaj7 and F/A, with 'BALANCED THREE-PART MOTIFIC STATEMENTS' annotation. The fourth staff (bars 13-16) features chords Eb7(#11), Db7(#11), Gm7, and C7sus b9.

Figure 123: Conjunct Melodicism/Romanticism – ‘21-12’ – bars 1–16

6.9.3. Motif

Figure 124 shows the first 16 bars of my composition ‘San Juan’. ‘San Juan’ is a 33-bar motivic composition built on a constantly shifting functional harmonic framework that modulates through the keys of G major, E minor, A minor, G minor, F major, and A major either via V–I relationships, or via tonicisation (e.g. bars 1–2). The initial motif is 4 bars long, and is transposed through various keys via sequential repetition, reduction and development. The first bar of the motif spells a diatonic triad preceded by a chromatic appoggiatura. An example of motivic reduction can be found at bar 9 where the second half of the 4-bar motif has been discarded, forming a new 2-bar motif that is repeated during bars 11–12 and 13–14.

Figure 124: Motif – ‘San Juan’– bars 1-16

Figure 125: Motif – ‘Chances Are’ – bars 9-28

Figure 125 shows the 20-bar melody from my composition ‘Chances Are’. ‘Chances Are’ is a contrafact composition, inspired by the repeated out-vamp heard on Mehdau’s recording of ‘Anything Goes’ (Anything Goes, 2006). This 4-bar vamp utilises constant structure,

employing major chords to descend through major and minor thirds. The melody is solely derived from a 2-bar motif that is adapted to fit over different chords.

6.9.4. Organic C/D

Figure 126 shows the melody from 'Doris'. At a length of 16 bars, 'Doris' is a composition using a short form, and consequently organic consonance via repetition plays an important role (as discussed in Chapter 4.5.4). Meyer (1956) states, 'as the repeated figure becomes the center of attention, the listener will begin to expect changes to take place... if the figure remains stable or is subjected to only minor variations, saturation may set in' (p. 137). Meyer is referring to two game plans with regards to repetition, and Mehlau uses both. First, Mehlau creates a vamp close to the end of a musical performance, based on a simple repeated chord sequence. The chord sequence, initially intended to be the focus, is repeated without much change. Second, as saturation begins to set in (Meyer, 1956, p. 135), Mehlau then begins to improvise, often building dissonance to climatic heights. Essentially 'Doris' utilises harmonic repetition because the chord progression is short enough to be vamp like; gradual build from consonance to dissonance is a requirement when performing this work.

Contrarily, organic dissonance can be found in the coda section of 'Doris'. The final chord in the piece is an unrelated Gb/Db chord; the abruptness of this final sonority is organically dissonant in three ways. First, the chord implies an abrupt modulation to Gb major from C major. Second, the Gb major chord is further destabilised by the use of the second inversion, and finally, the chord doesn't resolve back to C major, but instead fades to nothing using a fermata.

ORGANIC CONSONANCE (VAMP)

5 C F/C C

9 C F/C C

13 Am7 Am4/G D7add11/F# F D7/F# G7

17 C D7/C Fm7 LAST X C

21 Gb/D

ORGANIC DISSONANCE

Figure 126: Organic Consonance and Dissonance – ‘Doris’ – bars 5–21

6.9.5. Contrastive Valence

Figure 127 shows the first 20 bars of ‘La Romana’. ‘La Romana’ shares the same groove as ‘Don’t Be Sad’ (*Highway Rider*, 2010), a swung waltz with a laid-back backbeat. In ‘Sky Turning Grey (For Elliott Smith)’ (*Highway Rider*, 2010) Mehl dau employs a bassline that predominantly moves either chromatically or in tones. ‘La Romana’ contains similar bass movement to ‘Sky Turning Grey’; the melody is lyrical and motivic, employing chromatic appoggiaturas.

‘La Romana’ employs contrastive valence using the juxtaposition of several devices. Bar 14 contains expressive variation via a straight feel played over a swung groove; in addition, the phrase is lyrical and romantic in nature, employing three-part motivic statement which is suffixed with a descending chromatic figure leading to the next bar. Another, perhaps more contrastive example can be found at bar 16 in a phrase containing the same dissonant features as bar 14 with the addition of a vertical dissonance at beat 1 (D# over an E7 chord). So bar 16

contains horizontal consonance (conjunct melodicism), vertical dissonance (single note), horizontal dissonance (chromaticism), and rhythmical dissonance (expressive variation).

Figure 127: Contrastive Valence – ‘La Romana’ – bars 9–29

6.10. Summary of Practice Directions

While Chapters 4 and 5 defined and exemplified an analytical model exploring many types of C/D found in some of the music played by Brad Mehldau, Chapter 6 has been prescriptive in nature, detailing how I have transferred these elements into my own playing. The chapter has (1) defined my use of individual sonorities pertaining to C/D, (2) outlined psychological concepts of expectation derived from cognitive studies by Huron (2006) and Meyer (1956), (3) outlined the holistic use of consonance and dissonance via analysis of a prepared written improvisation/solo, and finally (4) outlined compositional tools that utilise concepts of C/D.

6.11. Summary of Exegesis

This exegesis has (1) conducted a detailed formal analysis of improvisation in the music of Brad Mehldau by way of case studies comprising transcriptions of 10 solos and many extracts and (2) defined and exemplified a new approach to jazz analysis derived from a study of holistic consonance and dissonance, and cognitive research into perceived motivation. It is hoped that the original analytical model developed herein will spur further study into both method and perceived motivation for improvised music as a whole.

References

Bibliography

- AAJ Staff. (2004). *A fireside chat with Brad Mehldau*. Retrieved from <http://www.allaboutjazz.com/php/article.php?id=1900>
- Andersen, K. (2003). *Studio 360: Pat Metheny, Brad Mehldau, and Amy Sedaris*. Retrieved from <https://itunes.apple.com/us/audiobook/studio-360-pat-metheny-brad/id202774772>
- Andre, P. (2011). *Elegiac Cycle, Brad Mehldau: Transcription complete et analyse*. Paris, France: Outre Mesure.
- Arthurs, D. (2011). *Reconstructing tonal principles in the music of Brad Mehldau* (Unpublished doctoral dissertation, Indiana University). Retrieved from <http://proquest.umi.com/pqdlink?Ver=1&Exp=10-23-2016&FMT=7&DID=2378883961&RQT=309&attempt=1&cfc=1>
- Baynes, M. (2012, September). Brad Mehldau's piano solo on 'Sky Turning Grey'. *Downbeat*, 79(9), 80–81.
- Bellaviti, S. (2005). *Combining macro and micro approaches to jazz performance analysis* (Unpublished master's thesis, York University, Canada). Retrieved from <https://www.library.yorku.ca/find/Author/Home?author=Bellaviti,%20Sean%20David>
- Bergonzi, J. (1994). *Inside improvisation, volume 1*. Rottenburg, Germany: Advance Music.
- Berliner, P. (1994). *Thinking in jazz: The infinite art of improvisation*. Chicago, IL: University of Chicago Press.
- Berry, W. (1976). *Structural functions in music*. Mineola, NY: Courier Dover Publications.
- Boulez, P. (1963). *Penser la musique aujourd'hui. Le nouvel espace sonore*. Geneva, Switzerland: Gonthier-Denoël.
- Brubeck, D. (1959). *Time out* [CD]. New York, NY: Columbia Records.
- Burton, G. (2012). *Gary Burton improvisation course*. Retrieved from <http://www.jazzpiano.co.nz/2012/09/studying-with-gary-burton>
- Cazden, N. (1980). The definition of consonance and dissonance. *International Review of the Aesthetics and Sociology of Music*, 11(2), 123–168. doi: 10.2307/836494
- Comerford, J. (Producer), & Rivoira, M., Larsdon, L., & Vogt, P. (Directors). (2010). *Jazz in the present tense* [Motion picture]. USA: Indiepix.
- Copland, A. (2009). *What to listen for in music*. New York, NY: New American Library.

References

- Creswell, J. (1998). *Qualitative enquiry and research design*. London: Sage.
- Crook, H. (1993). *How to improvise*. Rottenburg, Germany: Advance Music.
- Drake, N. (1969). *Five leaves left* [CD]. London: Island Records.
- Eitan, Z., & Granot, R. (2007). Intensity changes and perceived similarity: Inter-parametric analogies. *Musicae Scientiae*, *11*(1), 39–75. doi: 10.1177/1029864907011001031
- Esler, R. (2007). *A phenomenological approach to contemporary music performance* (Unpublished doctoral dissertation, University of California). Retrieved from http://www.robertesler.com/esler_dissertation.pdf
- Farbood, M. (2012). A parametric, temporal model of musical tension. *Music Perception: An Interdisciplinary Journal*, *29*(4), 387–428. doi: 10.1525/mp.2012.29.4.cover
- Galper, H. (2005). *Forward motion from Bach to bebop*. Petaluma, CA: Sher Music Co.
- Giancario, C. (Producer), & Ruspoli, T. (Director). (2010). *Being in the world* [Motion picture]. USA: Alive Mind Press.
- Gioia, T. (2007). *Assessing Brad Mehldau at mid career*. Retrieved from <http://www.jazz.com/features-and-interviews/2007/12/31/assessing-brad-mehldau-at-mid-career>
- Hatten, R. (1994). *Musical meaning in Beethoven: Markedness, correlation, and interpretation*. Bloomington, IN: Indiana University Press.
- Helmholtz, H. (1863). *Die lehre von den tonempfindungen als physiologische grundlage für die theorie der musik*. Braunschweig: Vieweg.
- Himes, G. (2011, December). 1 pianist, 2 hands. *Downbeat*, *78*(12), 45–46.
- Huron, D. (2006). *Sweet anticipation: Music and the psychology of expectation*. Cambridge, MA: MIT Press.
- Johnson-Laird, P. (2002). How jazz musicians improvise. *Music Perception*, *19*(3), 415–442. doi: 10.1525/mp.2002.19.3.415
- Jones, R. (2006). *Jazz polyrhythms*. Retrieved from <http://www.ronjonessax.com/images/JazzPolyrhythms+examplessmall.pdf>
- Kamien, R. (2011). *Music: An appreciation*. New York, NY: McGraw-Hill.
- Krebs, H. (1987). Some extensions of the concepts of metrical consonance and dissonance. *Journal of Music Theory*, *31*(1), 99–120.
- Krumhansl, C. (1996). Analysis of the first movement of Mozart's piano sonata K. 282. *Music Perception: An Interdisciplinary Journal*, *13*(3), 401–432. doi: 10.2307/40286177
- Lehne, M., Rohrmeier, M., Gollman, D., & Koelsch, S. (2012). *The influence of structural*

References

- features on perceived musical tension*. Retrieved from http://icmpecscom2012.web.auth.gr/sites/default/files/papers/574_Proc.pdf
- Lerdahl, F. (1989). Atonal prolongational structure. *Contemporary Music Review*, 4(1), 65–87. doi: 10.1080/07494468900640211
- Levine, M. (1989). *The jazz piano book*. Petaluma, CA: Sher Music Co.
- Levine, M. (1995). *The jazz theory book*. Petaluma, CA: Sher Music Co.
- Liebman, D. (2005). *A chromatic approach to jazz harmony and melody*. Rottenburg, Germany: Advance Music.
- Ligon, B. (2001). *Jazz theory resources, volume 1 & 2*. Milwaukee, WI: H. Leonard Corp.
- London, J. (2004). *Hearing in time: Psychological aspects of musical meter*. Oxford, England: Oxford University Press.
- Love, S. (2011). *On phrase rhythm in jazz* (Unpublished doctoral dissertation, University of Rochester, New York). Retrieved from <http://jjs.libraries.rutgers.edu/index.php/jjs/article/view/35/39>
- Love, S (2013). Subliminal dissonance or “consonance”? Two views of jazz meter. *Music Theory Spectrum*, 35(1), 48–61. doi: 10.1525/mts.2013.35.1.48
- Ludmilla, U. (1994). *Contemporary harmony: Romanticism through the twelve-tone row*. Rottenburg, Germany: Advance Music.
- Mackenzie, K. (2003). *Interview with Brad Mehldau*. Retrieved from <http://www.jazzpiano.co.nz/2012/04/the-interviews-of-brad-mehldau-an-amalgamation>
- McGowan, J. (2005). *Dynamic consonance in selected piano performances of tonal jazz* (Unpublished doctoral dissertation, University of Rochester, New York).
- Mehldau, B. (2002). *The Brad Mehldau collection*. Milwaukee, WI: H. Leonard Corp.
- Mehldau, B. (2006). *House on hill* [Liner notes]. USA: Nonesuch Records.
- Meyer, L. (1956). *Emotion and meaning in music*. Chicago, IL: University of Chicago Press.
- Middleton, A. (2005). *Melodic improvising*. Rottenburg, Germany: Advance Music.
- Milkowski, B. (1998). *Brad Mehldau: Keyed in*. Retrieved from <http://jazztimes.com/articles/20837-brad-mehldau-keyed-in>
- Miller, R. (2002). *Modal jazz composition and harmony, volume 2*. Rottenburg, Germany: Advance Music.
- Narmour, E. (2000). Music expectation by cognitive rule-mapping. *Music Perception: An Interdisciplinary Journal*, 17(3), 329–398. doi: 10.2307/40285821

References

- Nettl, B. et al. (n.d). *Improvisation*. Retrieved from <http://www.oxfordmusiconline.com.ezproxy.auckland.ac.nz/subscriber/article/grove/music/13738pg3>
- Page, T. (2009). *Motivic strategies in improvisations by Keith Jarrett and Brad Mehldau* (Unpublished master's thesis, Sibelius Academy, Finland). Retrieved from http://ethesis.siba.fi/ethesis/files/jarrett_mehldau.pdf
- Panken, T. (2008). *In conversation with Brad Mehldau*. Retrieved from <http://www.jazz.com/features-and-interviews/2008/6/5/in-conversation-with-brad-mehldau>
- Pankhurst, R. (n.d.). *Schenker guide*. Retrieved from <http://www.schenkerguide.com/glossarytest.php>
- Parncutt, R., & Hair, G. (2011). Consonance and dissonance in theory and psychology: Disentangling dissonant dichotomies. *Journal of Interdisciplinary Music Studies*, 5(2), 119–166. doi: 10.4407/jims.2011.11.002
- Potter, G. (1990). Analyzing improvised jazz. *College Music Symposium*, 30(1), 64–74. Retrieved from <http://www.jstor.org/stable/40374000>
- Redman, J. (2013). *Walking shadows* [CD]. USA: Nonesuch Records.
- Redman, J. (1994). *Captured live* [CD]. USA: Jazz Door Records.
- Schoenberg, A. (1970). *Fundamentals of musical composition*. London, England: St. Martin's Press.
- Tenney, J. (1988). *A history of "consonance and dissonance"*. New York, NY: Excelsior Music Publishing.
- Vella, J. (2011). *Interview with Brad Mehldau on the art of solo piano*. Retrieved from http://www.huffingtonpost.com/joseph-vella/brad-mehldau-the-art-of-s_b_823026.html
- Vonfoerster, R. (2012). *Metric dissonance and hypermeter in the chamber music of Gabriel Faure* (Unpublished doctoral dissertation, University of Colorado). Retrieved from <http://pqdtopen.proquest.com/pqdtopen/doc/1017548869.html?FMT=ABS>
- Wood, T. (2005). *Issues in the analysis of improvisation: A structuralist approach to the work of Brad Mehldau*. Retrieved from <http://www.bradmehldau.com/writing/index.html>
- Yorgason, B. (2009). *Expressive asynchrony and meter: A study of dispersal, downbeat space, and metric drift* (Unpublished doctoral dissertation, Indiana University). Retrieved from <http://ezproxy.auckland.ac.nz/login?url=http://search.proquest.com/docview/304899353?accountid=8424>

Discography

- Mehldau, B. (1995). *Introducing Brad Mehldau* [CD]. USA: Warner Bros.
- Mehldau, B. (1996–2000). *The art of the trio: Volumes 1–5* [CD]. USA: Warner Bros.
- Mehldau, B. (1999). *Elegiac cycle* [CD]. USA: Warner Bros.
- Mehldau, B. (2000). *Places* [CD]. USA: Warner Bros.
- Mehldau, B. (2001). *Largo* [CD]. USA: Warner Bros.
- Mehldau, B. (2004). *Anything goes* [CD]. USA: Nonesuch Records.
- Mehldau, B. (2004). *Live in Tokyo* [CD]. USA: Nonesuch Records.
- Mehldau, B. (2005). *Day is done* [CD]. USA: Nonesuch Records.
- Mehldau, B. (2006). *House on hill* [CD]. USA: Nonesuch Records.
- Mehldau, B. (2008). *Brad Mehldau trio live* [CD]. USA: Nonesuch Records.
- Mehldau, B. (2010). *Highway rider* [CD]. USA: Nonesuch Records.
- Mehldau, B. (2011). *Live in Marciac* [CD]. USA: Nonesuch Records.
- Mehldau, B. (2012). *Ode* [CD]. USA: Nonesuch Records.
- Mehldau, B. (2012). *Where do you start* [CD]. USA: Nonesuch Records.

References