Berio’s Sequenza XII in performance and context: a contribution to the Australian bassoon repertory synthesizing extended techniques into newly commissioned works

Portfolio of Recorded Performances and Exegesis

by

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Abstract

Berio’s *Sequenza XII* in performance and context: a contribution to the Australian bassoon repertory synthesizing extended techniques into newly commissioned works

This doctoral submission for the Elder Conservatorium of Music, University of Adelaide, consists of a portfolio of four CD recordings of performances of *Sequenza XII* for solo bassoon by Luciano Berio (1925-2003), plus performances of newly commissioned works by six Australian composers. These recorded performances are supported by an explanatory exegesis. The project has explored the problem solving process of practising, interpreting and performing *Sequenza XII*, and has used the collaboration between Berio and the work’s dedicatee, Pascal Gallois, as a template for the commissioning of new works for bassoon. Since its première in 1995, *Sequenza XII* has emerged as one of the seminal works in the solo bassoon repertory through the distinctive way it integrates extended techniques such as double circular breathing, glissando, Berio trills and various forms of articulation with a heightened level of musical expression. Despite its pre-eminence, the work is rarely performed due to the high levels of endurance and technical virtuosity it demands from the performer. This submission also serves as a guide for bassoonists approaching the work. In order fully to explore *Sequenza XII* and the partnership that inspired it, collaborations with six composers were undertaken to synthesize the extended techniques into newly commissioned works. This body of new work makes a contribution to the field by extending and expanding the repertoire for the bassoon.
Declaration

I declare that the material contained in this submission is my own original work except where credit has been given to the work of others. I also declare that none of the material has been submitted either previously or concurrently, for any other degree or other academic award at any other institution.

I give consent to this copy of my thesis, when deposited in the University Library, being made available for loan and photocopying, subject to the provisions of the Copyright Act 1968.

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Mark Gaydon
November 2012
Acknowledgments

I would like to thank:

Katy Abbott, Luke Altmann, James Cuddeford, Andrew Schultz, Charles Bodman Rae and Gerard Brophy for their collaborative efforts in contributing compositions and for permitting the scores of their new works to be included in Part D.

Lucinda Collins - piano and Kristian Chong – piano, for their performances of Deep Blue and Dirty by Andrew Schultz

Alison Heike – violin, Dean Newcomb – clarinet, Anna Axelsson – french horn and Harley Gray – double bass for their performances of The 21 Thoughts by Mark Gaydon.

ABC Classic FM Radio and 3MBS Melbourne for recording the newly commissioned works and for allowing the recordings to be included on CD 2, 3 and 4.

Silver Moon for recording the live concert performances and producing CD 1, 2, 3 and 4.

Professor Charles Bodman Rae for his invaluable advice and encouragement as principal supervisor and for providing clarity, direction and support during every stage of this research.

Dr Stephen Whittington for his valued input as co-supervisor.

Pascal Gallois for inspiring me to perform Berio’s Sequenza XII and collaborate with composers on new works for the bassoon.
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Example 3.5: *Ceol Mor II*, bars 115 - 124
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Example 3.8: *MultiSonic Reflections of Light and Sound*, bars 54 - 64

Example 4.1: *Star of Anise*: opening passage
Example 4.2: *Koan II*, page 3 system 2
Example 4.3: *Deep Blue and Dirty*, bars 1 - 18
Example 4.4: *The 21 Thoughts of Toru in the Well*, bars 8 - 9
Example 4.5: *The 21 Thoughts of Toru in the Well*, bars 65 - 72
Example 4.6: *Fragments of Siegfried*, bars 181 - 187
Example 4.7: *MultiSonic Reflections of Light and Sound*, bars 144 - 146
Abbreviations

DL - soft staccato
CB - circular breathing
FT - flutter tongue
HT - harmonic tonguing\(^1\)
LH - left hand
MP - multiphonic
RH - right hand
TK - double staccato
WT - water tonguing\(^2\)

Pitch Notation

\[\text{C'} - \text{B'} \quad \text{C} - \text{B} \quad \text{c} - \text{b} \quad \text{c'} - \text{b'} \quad \text{c''} - \text{b''}\]

\(^1\) Harmonic tonguing is a term coined for this research project and refers to staccato at the tip of the reed.
\(^2\) Water tonguing is a term coined for this research project and refers to a quick motion of the tongue without touching the reed.
PART A

Recorded Performances

NOTE:
4 CDs containing 'Recorded Performances' are included with the print copy of the thesis held in the University of Adelaide Library.

The CDs must be listened to in the Music Library.
Contents of CDs

CD 1 and 2 are located inside the front cover of this submission. CD 3 and 4 are located inside the back cover. The contents of the four CDs of recorded performances that can be found in Part A documents the process of practising and performing *Sequenza XII* for solo bassoon by Luciano Berio (1925-2003) (CD 1), the process of collaboration through sketches with Katy Abbott, Luke Altmann, James Cudeford, Andrew Schultz, Charles Bodman Rae and Gerard Brophy, and the première and subsequent performances of the newly commissioned works (CD 2 and 3). Also documented is an exploration into how bassoonists can compose music for their own instrument (CD 4).

All of the recordings included in Part A are live and unedited, with the exception of those recorded for ABC Classic FM Radio, which have been recorded under studio conditions and edited for broadcast. CD 1 track 1 also has two edit points to facilitate continuous sound. The sound engineer for the live performances was Silver Moon, the sound engineer for the ABC Classic FM recordings was Tom Henry, with producer India Hooi. The sound engineer for the 3MBS recordings was Peter Gibson.

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CD 1  *Sequenza XII: Documenting the Journey*

Track 1  *Sequenza XII* for solo bassoon by Luciano Berio.........................18:07  
(progress recording, 15 November 2009)

Track 2  *Sequenza XII*.................................................................14:29  
(progress recording, 22 November 2010)

Track 3  *Sequenza XII*.................................................................14:07  
(first live concert performance, 3MBS live radio broadcast, Melbourne, 21 April 2011)

Track 4  *Sequenza XII*.................................................................14:45  
(second live concert performance, solo recital, Pilgrim Church, Adelaide, 14 June 2011)

CD 2  *Newly Commissioned Works A*

(live concert performance in Elder Hall, University of Adelaide, 16 April 2012)

Track 2  *MultiSonics* (version 2 - with revisions).....................................8:36  
(recorded for ABC Classic FM Radio, Adelaide, 27 July 2012)

Track 3  *MultiSonics*: sketches 1....................................................11:18  
(recorded 10 November 2009)

Track 4  *MultiSonics*: sketches 2.....................................................12:06  
(recorded 31 January 2010)

(live concert performance, Pilgrim Church, Adelaide, 10 November 2010)

Track 6  *Star of Anise* (version 2 - with revisions).................................5:35  
(recorded for ABC Classic FM Radio, Adelaide, 27 July 2012)

Track 7  *Star of Anise*: sketches......................................................4:52  
(recorded 14 May 2010)

Track 8  *Devdas* for solo bassoon (2012) by Gerard Brophy.....................11:40  
(recorded for ABC Classic FM Radio, Adelaide, 27 July 2012)

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7 CD 1 documents the way my performances of *Sequenza XII* developed between November, 2009 and July 2012. The recordings from November 2009 and November 2010 are progress recordings of how *Sequenza XII* was developing during the initial stage of preparation.

8 Originally, *MultiSonics* sketches 1 and 2 were intended to be heard only by the composer and are therefore of relatively poor recording quality. They are included here as a way of tracking the evolution of the work and documenting the collaborative process.
CD 3  Newly Commissioned Works B

Track 1  *Koan II* for solo bassoon (2011) by James Cuddeford..................13:22
         (3MBS live radio broadcast, Melbourne, 21 April 2011)
Track 2  *Koan II* (version 2 - alternative tempo)..................................14:45
         (recorded for ABC Classic FM, Adelaide, 26 July 2012)
Track 3  *Koan II*: sketches 1.................................................................4:27
         (recorded 23 January 2011)
Track 4  *Koan II*: sketches 2.................................................................2:04
         (recorded 29 January 2011)
Track 5  *Deep Blue and Dirty*: double variations for bassoon and piano (2011).....8:30
         by Andrew Schultz
         (‘ABC Radio Sunday Live’ concert broadcast, Adelaide, 13 November 2011)
         with Kristian Chong - piano
Track 6  *Deep Blue and Dirty* (version 2 - extra trills and alternative tempos).....8:34
         (recorded for ABC Classic FM Radio, Adelaide, 25 July 2012)
         with Lucinda Collins - piano
Track 7  *Deep Blue and Dirty*: sketches................................................3:14
         (recorded 12 March 2011)
Track 8  *Ceol Mor II* for solo bassoon (2012) by Charles Bodman Rae..........14:18
         (recorded for ABC Classic FM Radio, Adelaide, 25 July 2012)
CD 4  The Performer as Composer

Track 1  *The 21 Thoughts of Toru in the Well* (2010) by Mark Gaydon 8:02
(live concert performance, Pilgrim Church, Adelaide, 12 April 2011)

Track 2  *The 21 Thoughts of Toru in the Well* (version 2) 8:21
(recorded for ABC Classic FM Radio, Adelaide, 26 July 2012)

Track 3  *The 21 Thoughts* for bassoon solo and chamber ensemble (2011) 11:19
by Mark Gaydon
(live concert performance, Elder Hall, University of Adelaide, 30 July 2011)

Ensemble Le Monde:
Mark Gaydon – bassoon, Alison Heike – violin, Dean Newcomb – clarinet
Anna Axelson – french horn, Harley Gray – double bass

Track 4  *Fragments of Siegfried* for solo bassoon (2012) by Mark Gaydon 10.40
(live concert performance, Elder Hall, University of Adelaide, 20 June 2012)

Track 5  *MultiSonic Reflections of Light and Sound* for solo bassoon (2012) 7:25
by Katy Abbott (arr. Gaydon)
(live concert performance, Elder Hall, University of Adelaide, 20 June 2012)

Track 6  *MultiSonic Reflections of Light and Sound* (version 2 - with revisions) 8:27
(recorded for ABC Classic FM Radio, Adelaide, 26 July 2012)

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9  *The 21 Thoughts* is an arrangement of and elaboration on the *The 21 Thoughts of Toru in the Well* for solo bassoon. It was composed after giving several performances of the original work and inspired by the opportunity to have the bassoon’s solo line responded to by answering statements from other instruments.

10  *MultiSonic Reflections of Light and Sound* is an arrangement of and elaboration on *MultiSonics* (2010) by Katy Abbott. It was written with the permission of the composer.
PART B
Exegesis
**Introduction**

A milestone in the evolution of the bassoon’s solo repertoire was the composition of Berio’s *Sequenza XII* for solo bassoon (1997). The work’s dedicatee, bassoonist Pascal Gallois states that Berio “has opened new horizons for the bassoon in this piece that other composers are beginning – or continuing – to develop now, at the dawn of the 21st century”. *Sequenza XII* incorporates extended performance techniques that were synthesized into the work during a prolonged collaboration between composer and performer. The culmination of this process has been the exploration of new avenues of musical expression on the instrument.

This doctoral submission has explored the problem solving process of practising, interpreting and performing *Sequenza XII* and has used the collaboration between Berio and the work’s dedicatee, Pascal Gallois, as a template for the commissioning of new works for bassoon. The included observations are based on an empirical methodology that is documented through *Sequenza XII: Documenting the Journey* (Part A CD 1) and a *Sequenza XII Practice Diary*. The conclusions made rely on the experience of participation in personal practice and recital performances as well as the process of re-listening to recordings made during research.

In order fully to explore *Sequenza XII* and the partnership that inspired it, collaborations with six composers were undertaken to synthesize the extended techniques into newly commissioned works:

- *Koan II* for solo bassoon (2011) by James Cuddeford
- *Deep Blue and Dirty* for bassoon and piano (2011) by Andrew Schultz
- *Ceol Mor II* for solo bassoon (2012) by Charles Bodman Rae
- *Devdas* for solo bassoon (2012) by Gerard Brophy

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The process of collaborating with these composers inspired an investigation into the performer building avenues of self-expression through composition. This exercise produced three original works (by Mark Gaydon) and one arrangement of *MultiSonics*:

- *The 21 Thoughts of Toru in the Well* for solo bassoon (2010)
- *The 21 Thoughts* for bassoon solo and chamber ensemble (2011)
- *Fragments of Siegfried* for solo bassoon (2012)
- *MultiSonic Reflections of Light and Sound* for solo bassoon (2012) by Katy Abbott (arranged Gaydon)

This body of new work makes a contribution to the field by extending and expanding the repertoire for the bassoon.

Since its première in 1995, *Sequenza XII* has emerged as one of the seminal works in the solo bassoon repertory through the distinctive way it integrates extended techniques such as double circular breathing, glissando, Berio trills and various forms of articulation with a heightened level of musical expression. Despite its pre-eminence, the work is rarely performed due to the high levels of endurance and technical virtuosity it demands from the performer.

This submission serves as a guide for bassoonists approaching the work. A *Sequenza XII* Practice Diary, which documents the two-year period of preparation before the first public performance, is referred to and allows for a personalized view of issues encountered during the early stages of learning Berio’s composition. Chapter 3 explores how the work’s many difficulties can be navigated and how the performance problems can be overcome.

Two terms have been coined in order to make discussing articulation styles less cumbersome. Water tonguing (WT) refers to fast tonguing without touching the reed, and harmonic tonguing (HT) refers to the articulation technique that Gallois
describes as brassy effects. These terms were used throughout the collaborations with composers and utilized in this exegesis.

The term glissando has been used in place of portamento, although the latter more accurately describes the sliding motion between notes in a vocal way that is a feature of the recorded works. This distinction is made to provide consistency with other written discussions of Sequenza XII by Gallois and David Osmond-Smith where glissando is used. An exception is made in this submission when discussing Ceol Mor II where the composer has used the direction portamento in the score as distinct from glissando.

There are currently five fully-edited commercial recordings of Sequenza XII available by contemporary bassoonists: two by Gallois (Ensemble Intercontemporain), and one recording each by Noriko Shimada (Ensemble Modern), Kenneth Munday (Los Angeles Chamber Orchestra), and Martin Kuuskmann (Estonian bassoonist). These existing recordings are cited as previous research and form important reference points.

In compiling the four CDs of recorded performances plus the Sequenza XII Practice Diary, the aim has been to investigate the following research questions relating to bassoon performance:

1) How does a bassoonist prepare Sequenza XII?
2) How does a bassoonist perform Sequenza XII?

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14 Ibid., 99.
3) Can the advancements in bassoon technique, present in *Sequenza XII*, lead to an expanded palette of expressive tools for the bassoon?

4) Can the advancements in bassoon technique, present in *Sequenza XII*, be utilized in works by composers other than Berio?

5) Does a collaborative process between a composer and a bassoonist lead to more effective works featuring the bassoon as a solo instrument?

The process of investigating *Sequenza XII* and the newly commissioned works through preparation for their performances and the experience of performing has allowed these questions to be confronted, assessed and elucidated upon in the following chapters. The recordings of the performances allow for the formation of a reflective view of the research period through re-listening and self-assessment.

During the period of preparation beginning in January 2009 pivotal ‘eureka’ moments occurred on dates that were documented in the *Sequenza XII* Practice Diary. It is important to note that access to Gallois’s book *The Techniques of Bassoon Playing* came in mid-2010 after the majority of the extended techniques were already learnt and practised. Bassoonists who approach *Sequenza XII* in the future will have the benefit of immediately referring to his guide for composers.

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CHAPTER 1

The Sequenza XII Journey: a Performer’s Perspective

This chapter is a personal account of the experience of practising, interpreting and performing Sequenza XII. Due to the relative lack of written material available regarding the work, it is intended that this chapter and chapter 2, Berio’s Dialogue with the Bassoon: an analysis of the Sequenza XII extended techniques, will act as a guide for bassoonists approaching the work. The bassoon sequenza is the twelfth in a series of fourteen sequenzas. Beginning in 1958 with Sequenza I for solo flute, the compositions appeared at regular intervals in the composer's output.\(^{21}\)

- Sequenza I for flute (1958)
- Sequenza II for harp (1963)
- Sequenza III for female voice (1965-6)
- Sequenza IV for piano (1965-6)
- Sequenza V for trombone (1966)
- Sequenza VI for viola (1967)
- Sequenza VII for oboe (1969), trans. as Sequenza VIIb for soprano saxophone
- Sequenza VIII for violin (1976-7)
- Sequenza IX for clarinet (1980), trans. as Sequenza IXb for alto saxophone (1981) and as Sequenza IXc for bass clarinet (1980)
- Sequenza X for trumpet and piano resonance (1984)
- Sequenza XI for guitar (1987-8)
- Sequenza XII for bassoon (1997)
- Sequenza XIII for accordion (1995-96)
- Sequenza XIV for cello (2002), trans. as Sequenza XIVb for double bass (2004)\(^{22}\)

As Janet K. Halfyard states, the series forms a significant influence in the development of works for solo instrument and voice:

Berio’s *Sequenza* series is one of the most remarkable achievements of the late twentieth century, a collection of virtuoso pieces that explores the capabilities of a solo instrument and its player, making extreme technical demands of the performer whilst developing the musical vocabulary of the instrument in compositions so assured and distinctive that each piece both initiates and potentially exhausts the repertoire of a new genre.\(^{23}\)

The complete Sequenzas have been recorded on three occasions: by Ensemble Intercontemporain, Ensemble Modern and by various artists for Naxos (see introduction). A full survey and study of the Sequenzas was undertaken in preparation for this research project.

In *Sequenza XII*, the musical content forces the bassoonist to break through existing technical boundaries and presents a formidable musical challenge. It requires a level of concentration and focus from the performer that leaves other bassoon works appearing simplistic by comparison. In order to perform the work, bassoonists have to re-invent themselves in order to negotiate the many conceptual, notational and technical challenges. The preconceived concepts of breathing, phrasing, rhythm and articulation must be re-visited, re-learnt or discovered afresh. Several times along this journey with *Sequenza XII*, the question was asked: why?

Why should one set out to find and break through the boundaries of their technical and physical capacities? Why should one feel it necessary to expand upon the established technical capabilities of their instrument? Why should one seek out new ways of expanding their expressive possibilities? From the experience of practising and performing *Sequenza XII* and the newly commissioned works, the answer to these questions has become apparent: if we do not explore new musical horizons, we stagnate, if we do not grow as performers, we wither, and if we do not move forward we ultimately move backwards. The following quotation from Berio’s lecture, *Remembering the Future*, provides further important conceptual clarification:

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A musically significant work is always made of interacting meaningful layers that are at once the agents and the materials of its existence. They are the actor, the director and the script all in one – or, rather, they are like the lake of an Indian tale, which sets out in search of its own source. So what is the musical Text? Is it the water, or the urge to seek out the source, the wellspring?24

In a performance of Sequenza XII, the bassoonist is the actor, the director and the script all in one, and must go in search of the source of their musicality.

During this performer’s journey, Berio’s music was used as a vehicle for expanding upon the existing abilities of the present author in four live performances and two progress recordings of Sequenza XII:

- First progress recording, 15 November 2009 (CD 1 track 1)
- Second progress recording, 22 November 2010 (CD 1 track 2)
- First live performance, 3MBS live radio broadcast, Melbourne, 21 April 2011 (CD 1 track 3)
- Second live performance, University of Adelaide, Elder Conservatorium of Music, 11 May 2011
- Third live performance, Ensemble Le Monde concert, Pilgrim Church, Adelaide, 14 June 2011 (CD 1 track 4)
- Fourth live performance, Australasian Double Reed Society Conference Gala Concert, Scotch College, Melbourne, 25 September 2011

As Berio states “the performer is required to perform at an extremely high level of technical and intellectual virtuosity”25 in order to perform a sequenza, this “virtuosity often arises out of conflict, a tension between the musical ideas and the instrument, between concept and musical substance”.26 It was this conflict between existing conventional performing techniques and the requirement to assimilate

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26 Thomas Gartmann, ‘…and so a chord consoles us: Berio’s Sequenza XIII (Chanson) for Accordion’ in Halfyard, op. cit., 276.
extended techniques that produced a progressively higher level of technical and musical virtuosity during the given performances and progress recordings.

Edoardo Sanguineti\textsuperscript{27} described the bassoon sequenza with the following verse: “I shift myself by degrees, cutting you into facets, I explore your surfaces, pensive, I palpate you: I turn you about and again, trembling, making you various: terrible, I torment you” (trans. David Osmond-Smith).\textsuperscript{28} Although this passage was written only to accompany \textit{Sequenza XII}, it could also be used as a description of what Berio does to bassoonists who perform his milestone composition. He does torment us, he does turn us about and at times the physical demands of the work does leave us trembling and gasping for air. But, more importantly, he forces us to explore our instrument, cutting the various elements of our technique and musicality into facets so that we may examine the smaller parts of the whole more closely. In this way, Berio urges us to shift our perceptions of what is possible.

Example 1.1: \textit{Sequenza XII}, bars 1 – 4 (CD 1 track 4 – time index 0:01)

The opening passage of \textit{Sequenza XII}, and its seemingly unplayable a’ to f#\textsuperscript{7} downward glissando, heralds a new era of expression for the bassoon and for bassoonists. Passages of a similar high degree of difficulty occur regularly throughout the work and it was found that a specific, well-defined approach to practice sessions and a resolute mental approach was essential to making progress towards achieving a high performance standard.

\textsuperscript{27} Edoardo Sanguineti was an Italian author and poet who wrote accompanying verses to each Sequenza.
A three-phase approach was employed during the preparation of *Sequenza XII* for the recorded performances. This approach was developed when confronted with the significant challenge of performing the work and presupposes that the bassoonist cannot circular breathe or execute any of *Sequenza XII*’s extended techniques:

- **Phase one:** incorporation of extended techniques into the skill-set of the performer and the concurrent investigation of Berio’s output and compositional style
- **Phase two:** building physical stamina and forging a connection with the musical concepts and material
- **Phase three:** synthesizing musical intent with technical fluency and consolidating physical stamina under performance stress

It is recommended that the following observations be considered while preparing for a performance of *Sequenza XII*:

- The extended techniques should be practised slowly and diligently in the same way other elements of technique are developed
- Each extended technique should be practised individually before being combined with other extended techniques
- Realistic goal setting regarding improvements in extended techniques is essential in practice sessions
- The technique of recording one’s self and re-listening is useful when practising *Sequenza XII* – the many extended techniques being created simultaneously mean the overall effect can be difficult to fathom during execution
- The use of musical note-groupings during practice assists in defining musical intent and direction during phrases – an explanation of this

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29 This is done through a survey of Berio’s solo, chamber and orchestral works and the output of his contemporaries.
30 This refers to the physical stamina required to use double circular breathing for an extended period.
31 Performance situations place greater stress on the physiology of breathing.
approach is given on David McGill’s CD Orchestral Excerpts for Bassoon in the form of spoken commentary.\textsuperscript{33}

- It is essential to maintain a positive mental attitude as \textit{Sequenza XII}’s difficulties are confronted - the bassoonist must remain focused on the longer term goals and not be perturbed by the long period of preparation

Although the energy expended in learning \textit{Sequenza XII} and its many extended techniques may appear to outweigh the benefits, the opposite has been true in this case. The many and varied facets of Berio’s work make compelling study and the expansion of interpretative skill and musical virtuosity that must be attained, open doors to the performance of a wide array of repertoire. Above all, \textit{Sequenza XII} is a work of extraordinary beauty, depth and power that, as bassoonists, we must champion.

\textsuperscript{33} David McGill, \textit{Orchestral Excerpts for Bassoon} with spoken commentary (Summit Records: SUM 162, 1994).
CHAPTER 2

Berio’s Dialogue with the Bassoon: a performer’s perspective on the extended techniques of *Sequenza XII*

“We certainly have within us a constant need to transcend instruments, but we also know that we cannot go beyond them without eventually coming back, and setting up a dialogue with them. We can never contribute to their evolution if we treat them as mere sound generators and ignore their history. …nor have they ever considered the problem of creating a dialogue (however metaphorical) between “heaven” (the idea) and earth, between the “soul” and the body (the instrument)”  

As Berio suggests with the above comment, in contemporary composition there exists a desire to exceed the traditional expectations of instruments. Performers and composers are invariably striving for a dialogue with listeners, but what about the unique dialogue that exists between a composer and the instrument for which they are composing? Furthermore, the marriage of instrumentalist and instrument is uncommonly communicative in the way a performer speaks directly through their comrade-in-arms in the pursuit of musical expression. This chapter elucidates on the way a bassoonist reconciles the musical idea with execution.

Mastering the *Sequenza XII* extended techniques in performance represents a unique challenge. There are twelve of them:

- circular breathing
- double circular breathing
- glissando
- Berio Trills
- DL: soft staccato
- TK: double staccato

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35 Although it is the specific technique of double circular breathing that is required throughout *Sequenza XII*, circular breathing is included as it is a necessary skill to acquire before attempting the work. Also, many of the newly commissioned works call for the use of both circular and double circular breathing.
• FL: flutter tonguing
• water tonguing: quick motion of the tongue without touching the reed
• harmonic tonguing: staccato at the tip of the reed
• flap
• harmonics: special sound using harmonics
• timbre trills and change of timbre fingerings

The technique being executed must speak naturally and freely, and must be given musical life and impetus within the framework of the piece. The incorporated technique must ultimately add to the phrasing, expression and drama of the music by creating an essential musical ingredient that brings forth greater tension and depth.

This chapter gives a performer’s perspective on the extended techniques required to perform Sequenza XII and the commissioned works. They are discussed in terms of why a composer would choose to incorporate them, and how to practise and then assimilate the technique for performance. The instruction and advice on how a bassoonist might decide to approach the included techniques is not definitive but rather personalized through empirical investigation. The act of exploring through practice sessions, trial and error and building upon and learning from performance experiences has produced practical advice that has stood the tests of the concert platform.

In sections 2.1 to 2.12, each of the twelve extended techniques is discussed in terms of its application in Sequenza XII and the newly commissioned works.
2.1 Circular Breathing

Circular breathing is featured in passages from the following:

- *MultiSonics* (eg. CD 2 track 2 – time index 0:11)
- *Koan II* (eg. CD 3 track 1 – time index 3:16)
- *Deep Blue and Dirty* (eg. CD 3 track 6 – time index 0:01)
- *Ceol Mor II* (eg. CD 3 track 8 – time index 0:01)
- *Devdas* (eg. CD 2 track 8 – time index 0:01)
- *The 21 Thoughts of Toru in the Well* (eg. CD 4 track 1 – time index 0:01)
- *The 21 Thoughts* (eg. CD 4 track 3 – time index 7:14)
- *Fragments of Siegfried* (eg. CD 4 track 4 – time index 0:01)
- *MultiSonic Reflections of Light and Sound* (eg. CD 4 track 6 – time index 5:35)

“Circular breathing has existed since the dawn of time and has been used throughout the world for centuries”.\(^{36}\) Despite this, the early stages of learning circular breathing are painstaking, and as was noted in the *Sequenza XII* Practice Diary, it was three months before a capability to circular breath in a rudimentary way was achieved during the preparation of *Sequenza XII*.\(^{37}\)

The need to create continuous sound precipitates an unusual stamina issue for the bassoonist. When circular breathing, the lip and facial muscles that support the playing embouchure must stay in contact with the reed and maintain the required supportive seal for much longer than is normal. The end result is inevitably a high level of fatigue in muscles that would otherwise be rested at short but regular intervals throughout a work.

The incorporation of circular breathing also poses an interesting dilemma in performance, where breath control can be placed under strain due to nerves. The very exposed circular breathing work required at the beginning of *The 21 Thoughts of Toru in the Well*, is a difficult moment that requires calm in the body in order to attain the required effect.

\(^{37}\) Mark Gaydon, *Sequenza XII* Practice Diary.
Example 2.1: *The 21 Thoughts of Toru in the Well*, bars 1 – 2 (CD 4 track 2 – time index 0:01)

In example 2.1, the extended period of time that transpires during the execution of the written glissando and timbre trill in the opening bars of *The 21 Thoughts of Toru in the Well*, ensures the need for circular breathing. Maintaining a seamless, steady pitch centre in soft dynamics is a major challenge in this passage.

### 2.2 Double Circular Breathing

Double circular breathing is featured in passages from the following:

- *Sequenza XII* (eg. CD 1 track 4 – time index 0:01)
- *The 21 Thoughts of Toru in the Well* (eg. CD 4 track 2 – time index 3:00)
- *The 21 Thoughts* (eg. CD 4 track 3 – time index 8:45)
- *MultiSonic Reflections of Light and Sound* (eg. CD 4 track 5 – time index 5:25)

Double circular breathing is a special technique where the instrumentalist alternatively inhales and exhales through the nose while sound is being produced. The exhalation is an essential way of removing from the lungs stale air that can build up during a regular circular breathing cycle when only inhalations are occurring. When circular breathing for long periods of time, a bassoonist must find occasions in the music that allow for enough air to be pushed out through the instrument to maintain physical equilibrium. If these occasions do not transpire regularly enough then it is necessary to employ double circular breathing to ensure comfort in the body. Too much stale air in the lungs will lead to hyperventilation.

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38 Gallois, *op. cit.*, 64.
During the recorded performances of *Sequenza XII*, double circular breathing is maintained for close to fifteen minutes.

### 2.3 Glissando

Glissando is featured in passages from the following:

- *Sequenza XII* (eg. CD 1 track 4 – time index 0:10)
- *MultiSonics* (eg. CD 2 track 2 – time index 3:42)
- *Koan II* (eg. CD 3 track 2 – time index 2:38)
- *Deep Blue and Dirty* (eg. CD 3 track 6 – time index 0:32)
- *Ceol Mor II* (eg. CD 3 track 8 – time index 0:10)
- *The 21 Thoughts of Toru in the Well* (eg. CD 4 track 2 – time index 0:01)
- *The 21 Thoughts* (eg. CD 4 track 3 – time index 3:24)
- *MultiSonics Reflections of Light and Sound* (eg. CD 4 track 6 – time index 3:54)

The flexibility of embouchure involved with playing the bassoon makes the use of glissando a natural addition to the instrument’s expressive capabilities. Alternately loosening and tightening the embouchure will produce a noticeable alteration in pitch, but when this process is refined in combination with small but precise sliding motions of the fingers, to open or close tone holes, a convincing musical effect is created.

Example 2.2: *Deep Blue and Dirty*, bars 97 – 99 (CD 3 track 6 – time index 4:43)

![Example notation]

Schultz uses glissandi to link notes a semitone apart in the above passage. Moving between pitches in this way produces a more vocal effect and a feeling of falling away at the end of statement.
In the same way that full connectivity between notes is a desirable lyrical device for the human voice in *Sequenza III* for female voice,\textsuperscript{39} composed for Berio’s then wife, Cathy Berberian,\textsuperscript{40} the bassoon is pushed to a new level of lyricism when producing a glissando. The vocal style of Berio emerges in a purely instrumental way through this technique that pushes the bassoonist to high levels of concentration, embouchure elasticity and finger control.\textsuperscript{41}

The glissandi should sound as integral a part of the structure of *Sequenza XII* as dynamics, rhythm, pitch, articulation and tempo regulation. They can be accentuated and brought to the forefront of the texture in such a way as to enhance the original intention of the music.

Example 2.3: *Sequenza XII*, page 2 system 4 (CD 1 track 4 – time index 3:44)

![NOTE: This example has been removed to comply with copyright regulations. It is included in the print copy of the thesis held by the University of Adelaide Library.]

### 2.4 Berio Trills

Berio trills are featured in passages from the following:

- *Sequenza XII* (eg. CD 1 track 4 – time index 9:31)
- *MultiSonics* (eg. CD 2 track 2 – time index 3:19)
- *Koan II* (eg. CD 3 track 2 – time index 4:28)
- *The 21 Thoughts of Toru in the Well* (eg. CD 4 track 2 – time index 5:48)
- *The 21 Thoughts* (eg. CD 4 track 3 – time index 7:15)
- *MultiSonic Reflections of Light and Sound* (eg. CD 4 track 6 – time index 4:12)

\textsuperscript{41} Gallois, *op. cit.*, 101.
The Berio trills symbolize a synthesis of the two central musical ideas presented in *Sequenza XII*: a high register singing voice and a lower more aggressive one. The alternation between these ideas at high speed during a trill represents a merging of two sound worlds. The resulting sonic experience is unique and provides a violent contrast to the other passages that bookend the *Sequenza XII* trill sections.

Example 2.4: *Sequenza XII*, page 4 system 5 (CD 1 track 4 – time index 9:28)

Passages such as the above provide a thrilling musical effect. The wide spectrum of sound that is produced by the trills provides the perfect cover to render the breathing technique indistinguishable. To facilitate reaching an appropriately fast speed for these trills, it is necessary to use fingerings that allow for the alternation between the two written notes while searching for a compromise between embouchure and air pressure so that both notes of the trill gain equality. For example, for the trill from B♭' to d', one should finger a standard B♭' and trill LH 3, RH 1, 2 and 3 and the F key, leaving the remaining fingers and thumbs depressed. Finding a perfect equalization is futile but striving for a convincing musical effect is important.

The process of practicing and attaining fluency with Berio trills was slow during preparation. The following entry from the *Sequenza XII* Practice Diary on 24 April, 2009 bears witness to this fact:

For the first time today, I made a good step forward in my use of the wide trills that punctuate this piece. The clue has been listening to recordings and realizing that no attempt is made to be precise or perfect. These trills are more alike to the murmurings of the Berio *Sequenza III* for female voice than to a trill in any other work. When treated like a sound or wash of colour, these trills can be finally seen as a musical device, making them much happier figures to play. My speed and confidence is improving on these and I have

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42 Mark Gaydon, *Sequenza XII* Practice Diary.
started grouping certain trills together so that there is a flow from one to the next.43

2.5 DL: Soft Staccato44

DL: Soft Staccato is featured in passages from the following:

- *Sequenza XII* (eg. CD 1 track 4 – time index 0:58)

Soft staccato has two primary applications: to create musical shape or direction on a long note and to provide a texture. It can provide a work with a layer of interest that runs concurrently with other musical elements of phrasing. For a performer, the use of soft staccato makes it possible for the direction of a note to be taken forward or backwards without having to make an adjustment to dynamics or vibrato speed. The effect is uniquely lyrical and is more vocal in nature than those usually associated with bassoon playing. Inspiration for these lightly articulated passages can be found in *Sequenza III*.45

2.6 TK: Double Staccato: hard and aggressive46

TK: Double Staccato is featured in passages from the following:

- *Sequenza XII* (eg. CD 1 track 4 – time index 0:38)

The application of a heavy and aggressive tongue in the use of double staccato takes the bassoonist to the limit of possible attack strengths. The double reed of the bassoon and the flexibility of the embouchure make this form of extreme attack an effective possibility providing tension and a sense of performer and instrument being pushed to the edge.

When playing these heavily attacked notes, the bassoonist must compensate for the extreme force of the tongue with a correspondingly loose embouchure. The lips provide a way of maintaining a pitch centre while ensuring that no air escapes at

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43 Mark Gaydon, *Sequenza XII* Practice Diary.
the side of the mouth. The extreme action of the tongue, when not adequately supported with air, can result in an absence of clarity, intonation and tone quality.

2.7 FL: Flutter Tonguing

Flutter tonguing is featured in passages from the following:
- *Sequenza XII* (eg. CD 1 track 4 – time index 0:42)
- *MultiSonics* (eg. CD 2 track 2 – time index 2:13)
- *Koan II* (eg. CD 3 track 2 – time index 0:01)
- *Fragments of Siegfried* (eg. CD 4 track 4 – time index 2:54)
- *MultiSonic Reflections of Light and Sound* (eg. CD 4 track 6 – time index 4:07)

Flutter tonguing is used sparingly in *Sequenza XII* but provides a climactic effect when incorporated as the pinnacle of a dynamic scheme. It also produces a snarling effect at soft dynamics levels.

Example 2.5: *Sequenza XII*, page 2 system 5 (CD 1 track 4 – time index 4:16)

NOTE:
This example has been removed to comply with copyright regulations. It is included in the print copy of the thesis held by the University of Adelaide Library.

The above example shows Berio incorporating flutter tongue to accentuate the top of a phrase. The relationship between the flutter tongued notes and those of less frenzied articulation accentuates the phrasing in a unique way that lends *Sequenza XII* a character intrinsic to the bassoon. The difficulty in producing flutter tongue is not in the physical action of the technique but rather in the way it is dynamically prepared and resolved. A good preparation allows the flutter tongue to emerge like a natural conclusion or evolution of the phrase. The resolution depends on the amount of diminuendo that is possible while still producing a realistic “flutter” effect. If the sound is allowed to become pale then the quality of flutter tongue is severely
curtailed, while not enough diminuendo results in a badly prepared connection with the following material.

Flutter tonguing is incorporated to great effect in the opening statement of James Cuddeford’s *Koan II*, where he exploits the frenzied nature of this technique in a Bb’ battle cry.

Example 2.6: *Koan II*, bar 1 (CD 3 track 2 – time index 0:01)

![Musical notation]

On this occasion the bassoon mimics a Tibetan horn as a way of announcing the work.

2.8 WT: water tonguing, quick motion of the tongue (as for staccato) without touching the reed

Water tonguing is featured in passages from the following:

- *Sequenza XII* (eg. CD 1 track 4 – time index 1:15)
- *MultiSonics* (eg. CD 2 track 2 – time index 4:37)
- *Ceol Mor II* (eg. CD 3 track 8 – time index 1:11)
- *Devdas* (eg. CD 2 track 8 – time index 2:56)
- *The 21 Thoughts of Toru in the Well* (eg. CD 4 track 2 – time index 7:40)
- *The 21 Thoughts* (eg. CD 4 track 3 – time index 2:31)
- *MultiSonic Reflections of Light and Sound* (eg. CD 4 track 6 – time index 5:56)

Water tonguing is a subtle technique that provides a shimmering effect. It is softer and more discreet than soft staccato or timbre trill but provides a greater sense...
of motion and impetus than vibrato. During a performance it makes it possible to add colour and interest to a note without changing dynamic.

The closing passages of *The 21 Thoughts of Toru in the Well* give an important phrasing role to the water tonguing technique and show how it can add interest and texture:

Example 2.7: *The 21 Thoughts of Toru in the Well*, bars 103 – 105 (CD 4 track 2 – time index 7:38)

As the phrase dances around a central note, the water tonguing provides a place of rest within the music and signifies a returning home feeling within the closing passage.

2.9 HT: harmonic tonguing, staccato at the tip of the reed

Harmonic tonguing is featured in passages from the following:

- *Sequenza XII* (eg. CD 1 track 4 – time index 2:28)
- *Devdas* (eg. CD 2 track 8 – time index 3:55)
- *The 21 Thoughts of Toru in the Well* (eg. CD 4 track 2 – time index 0:55)
- *The 21 Thoughts* (eg. CD 4 track 3 – time index 11:04)
- *MultiSonic Reflections of Light and Sound* (CD 4 track 6 – time index 0:01)

Harmonic tongued notes provide a drastic contrast of colour and texture in the low register of the instrument. Utilizing the technique of harmonic tonguing, a forcefully articulated low register note is purposefully mis-pitched in order to accentuate the harmonic spectrum that occurs within the note. Harmonic tonguing is done at the tip of the reed with only a small amount of reed in the mouth. In *Sequenza*
XII, Berio repeats material once with the harmonic tongue effect and then without it as a natural variation or ornamentation within certain phrases:

Example 2.8: *Sequenza XII*, page 1, system 6 (CD 1 track 4 – time index 2:28)

It is essential when executing harmonic tonguing passages that the effect is clearly differentiated from regular tonguing. It must be done with strong force and a clear intention to break down the regular note into its harmonic and spectral components. For this to occur, the bassoonist must use maximum air pressure with a correspondingly loose embouchure, and then attack the tip of the reed enthusiastically with the tongue.47

Example 2.9: *MultiSonic Reflections of Light and Sound*, bars 1 – 12 (CD 4 track 6 – time index 0:01)

This passage from *MultiSonic Reflections of Light and Sound* demonstrates a juxtaposition of harmonic tongued notes interspersed with regularly articulated

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47 This element of technique was discovered during a private lesson with Pascal Gallois on 12 December 2011 (See Part C, C2).
staccato and flutter tonguing. A section of music such as this challenges the bassoonist by requiring a fast embouchure recovery following the strongly attacked harmonic tongued notes.

2.10 Flap: hard staccato on the reed without blowing (percussive effect)

Flap is featured in passages from the following:
- Sequenza XII (eg. CD 1 track 3 – time index 13:56)
- The 21 Thoughts of Toru in the Well (eg. CD 4 track 1 – time index 7:49)
- The 21 Thoughts (eg. CD 4 track 3 – time index 11:09)

This style of tonguing is simply a regularly articulated note but with two exceptions, the air pressure behind the note is slight and the tongue stays in contact with the tip of the reed after the sound is produced. It is the action of the tongue on the tip of the reed like a regular staccato note that in combination with the resonance of the instrument creates a soft percussive effect based on the fundamental pitch being fingered.

Example 2.10: The 21 Thoughts of Toru in the Well, final bar (CD 4 track 2 – time index 8:07)

The use of a flap tongue Bb’ in the final bar of The 21 Thoughts of Toru in the Well is a tribute to Berio and a quotation from Sequenza XII.

2.11 Harmonics: special sound using harmonics

Harmonics are featured in passages from the following:
- Sequenza XII (eg. CD 1 track 3 – time index 10:43)
- Ceol Mor II (eg. CD 3 track 8 – time index 1:28)
Berio’s incorporation of harmonics in *Sequenza XII* allows us aurally to investigate the inner workings of various pitches by revealing their overtones. These are routinely based on the lowest register of the bassoon where the second and third overtones appear relatively easily given the correct adjustment to the embouchure and air stream. The music tends to almost stop at the sections that incorporate these special sounds and pauses to muse over what is about to happen next or what has just occurred.

Example 2.11: *Fragments of Siegfried*, bars 111 – 116 (CD 4 track 4 – time index 5:45)

![Musical notation](image)

This excerpt from *Fragments of Siegfried* asks the bassoonist to allow the ghostly harmonics to float out above a C. It is the technique involved with making these harmonics sound that makes them difficult to produce in the context of the work. The amount of reed taken into the mouth should decrease while lip and air pressure increase until it has found the right fit to send the reed humming into the harmonic spectrum.

### 2.12 Timbre Trills and change of timbre fingerings

Timbre trills are featured in passages from the following:

- *Sequenza XII* (eg. CD 1 track 3 – time index 0:30)
- *MultiSonics* (eg. CD 2 track 2 – time index 1:01)
- *Koan II* (eg. CD 3 track 2 – time index 9:17)
- *Ceol Mor II* (eg. CD 3 track 8 – time index 0:01)
- *The 21 Thoughts of Toru in the Well* (eg. CD 4 track 1 – time index 0:35)
Timbre trills, also referred to as bisbigliandi,\(^{48}\) occur regularly throughout *Sequenza XII*. These trills occur when the pitch of a note is unchanged but where different fingers produce changes in colour.

Example 2.12: *MultiSonics*, bars 92 – 100 (CD 2 track 2 – time index 5:34)

\[\text{NOTE:}\]
\[\text{This example has been removed to comply with copyright regulations.}\]
\[\text{It is included in the print copy of the thesis held by the University of Adelaide Library.}\]

In the above example from *MultiSonics*, Abbott found an effective way of linking timbre trills with water tonguing. The trill provides a way of colouring the aflat’ and supporting the underlying crescendo while taking the direction of the music forward. The similarity of effect between timbre trill and water tonguing makes a smooth link between the techniques a possibility in performance.

\(^{48}\) Gallois, *op. cit.*, 65.
CHAPTER 3

A contribution to the Australian bassoon repertory: collaborations with composers and the synthesis of extended techniques into new works

Working with a new generation of composers is necessary to keep abreast of the evolution of the art. This is the meaning of life. - Gallois

Sequenza XII developed through a series of sketches and meetings over a three-year period beginning in 1992 and culminating with the première in 1995:

1) 1992 – Berio asks Gallois for an inventory of bassoon techniques
2) 1993 – Berio asks Gallois for an inventory of all possible staccatos and tremolos between the highest and the lowest registers of the instrument
3) August 1994 – Berio provides Gallois with a first sketch of Sequenza XII
4) November 1994 – Berio provides Gallois with a second sketch of Sequenza XII
5) 15 June 1995 – Première performance of Sequenza XII
6) 1997 – Sequenza XII is published

This process of collaboration through sketches, drafts and revisions, meetings and performer feedback has been used as a model for the production of new compositions that are included in this submission.

The intention behind initiating collaborations with composers as a result of studying Sequenza XII was to build upon and extend the Australian bassoon repertoire at this juncture in the instrument’s history. The aim was to forge musical creations in which the bassoon, and indeed the bassoonist, could flourish in a new and exciting

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49 Pascal Gallois, “Pascal Gallois #3” CD liner notes (Stradivarius: STR 33799, 2009), 17.
way during performances. The new playing techniques established by the Berio/Gallois partnership form an exciting palette of fresh expressive opportunities from which composers can choose.

This section will discuss the process of collaborating with six composers to produce the newly commissioned works found in recorded form in Part A CD 2 and 3 and as musical scores in Part D. The synthesis of extended techniques into the compositions demanded that a process of exchanging ideas and information took place in order cohesively to merge traditional bassoon writing with the Sequenza XII extended techniques. The resulting pieces provide a context to the influence of Sequenza XII on the Australian bassoon repertory.

Katy Abbott, Luke Altmann, James Cuddeford, Andrew Schultz, Charles Bodman Rae and Gerard Brophy all contributed collaborative efforts in the production of the following new works incorporating extended techniques featured in Sequenza XII.

MultiSonics for solo bassoon (2010) by Katy Abbott
Koan II for solo bassoon (2011) by James Cuddeford
Deep Blue and Dirty for bassoon and piano (2011) by Andrew Schultz
Ceol Mor II for solo bassoon (2012) by Charles Bodman Rae
Devdas for solo bassoon (2012) by Gerard Brophy

Each composer, due to their individual musical personalities and compositional styles, approached the collaborative process differently, and forged a connection with the bassoon based on their own musical projection and personality.

The key modes of interaction that took place with the composers are as follows:

1) meetings to discuss the new work
2) email discussions regarding the new work
3) “The Bassoon of Today” essay written and given to the composer
4) playing sessions where demonstrations of bassoon techniques and performances of sketches were given for the composer
5) first drafts given to the performer
6) recordings of sketches or first drafts were sent as feedback to the composer
7) revised scores given to the performer
8) composer present at performance and then editing the work or giving suggestions for future performances

3.1 Katy Abbott

Sequence of collaborations with Katy Abbott:
1) March 2009 – first meeting to discuss a possible new work
2) June 2009 – Abbott is given The Bassoon of Today and a score of the Berio Sequenza XII for perusal
3) July 2009 – second meeting to play through preliminary ideas
4) September 2009 - Abbott provided first sketch
5) October 2009 – sketch 1 is recorded (CD 2 track 3)
6) January 2010 - Abbott provided second sketch
7) February 2010 – sketch 2 is recorded (CD 2 track 4)
8) March 2010 – final version in completed
9) 25 July 2010 – première performance of MultiSonics as part of the Ngeringa Herb Farm Chamber Music Series in the Adelaide Hills
10) 5 March 2012 – second performance
11) 16 April 2012 – third performance (CD 2 track 1)
12) 27 July 2012 – recording of completed work made for ABC Classics with revisions (CD 2 track 2)

Katy Abbott’s reaction to the auditory experience of hearing timbre trills in collaborative meetings inspired her to feature this effect in MultiSonics. This technique is used by Abbott to give colour and intensity to long notes that would otherwise only be shaped by dynamic variation and the natural timbre of the note.

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52 “The Bassoon of Today” was written to introduce the bassoon to composers as a way of supporting the process of collaboration (See Part C, C.1).
After hearing demonstrations of ways timbre trills could be applied, this technique was featured throughout the resulting new composition. A twelve-month period of exchanging ideas and approaching the work through a series of sketches transpired before a fully cultivated piece emerged. Despite the long period of gestation, *MultiSonics* is a unique merging of the new techniques of *Sequenza XII* and Abbott’s own musical style.

Of particular interest in *MultiSonics*, and a direct outcome of the collaboration, are the combinations of techniques used in the work. For example, the opening bar combines a timbre trill with a multiphonic, leading to a much greater impact than if either had been used individually. In turn, the note is subjected to a large crescendo, starting from the softest possible dynamic and developing into an imposing statement.

Example 3.1: *MultiSonics*, bar 1 (CD 2 track 2 – time index 0:01)

As the collaboration developed, it was found that these combinations of elements were essential to establishing the true voice and spirit of the work. There are moments of musical contemplation within *MultiSonics* that allow space for the new techniques to be featured while giving greater weight to the more traditional themes of the work as a result of this contrast.

Another example of this merging of elements is in bars 69 and 70. In this case, a gentle, slow glissando is combined with another large crescendo which ends with an aggressive flutter tongued “full stop” note.
Example 3.2: *MultiSonics*, bars 69 and 70 (CD 2 track 2 – time index 3:42)

![In free time, slowly](image)

This is an extension of an idea that Berio uses in *Sequenza XII* where soft and slow glissandos are rudely interrupted by more florid, aggressive statements. Abbott found that the combination of a glissando with a direction giving crescendo, gives a pointed phrasing to an otherwise dying note.

### 3.2 Luke Altmann

Sequence of collaborations with Luke Altmann:

1) March 2009 – first meeting to discuss a possible new work. Altmann makes recordings of many bassoon techniques that are performed for him

2) June 2009 – Altmann is given The Bassoon of Today and a score of the Berio *Sequenza XII* for perusal

3) October 2009 – second meeting to discuss the progress of the work

4) April 2010 – Altmann provided first sketch

5) 14 May 2010 – sketch 1 is recorded (CD 2 track 7)

6) October 2010 – first version of *Star of Anise* completed

7) 10 November 2010 – première performance of *Star of Anise* (CD 2 track 5)

8) 5 March 2012 – second performance

9) 27 July 2012 – recording of completed work made for ABC Classics with revisions (CD 2 track 6)
Luke Altmann’s *Star of Anise* is a piece that explores two of the available voices or registers present within the bassoon:

Example 3.3: *Star of Anise*, p. 2 system 2 (CD 2 track 6 – time index 2:49)

The evolution of *Star of Anise* is intriguing and also similar in length to that of *MultiSonics*. Despite being asked to compose a solo bassoon work using the extended techniques incorporated by Berio, Altmann created a piece that utilized no extended techniques of any kind. In that way, his work is a reaction against *Sequenza XII* rather than an emulation of it. Altmann felt it more important to forge his own comment on the bassoon and its special voice rather than infuse his composition with effects.

The collaborative meetings with Altmann began with demonstrations of the techniques included in *Sequenza XII*, which were recorded by the composer for later reference. The initial intention of the composer was to produce a work incorporating sampling equipment in performance, however this idea was abandoned as the composer realized that he wanted to incorporate very strict breathing patterns in *Star of Anise*, and the utilization of a sampler would be contrary to this aim. Altmann, as a reaction against the continuous sounds that were demonstrated during the collaboration, decided to aim instead to preserve the beauty and natural proportions of a cycle of breath. This makes the need for phrases to be broken and silences to be heard an integral part of his composition.
3.3 James Cuddeford

Sequence of collaborations with James Cuddeford:

1) April 2010 – first meeting to discuss a possible new work. Cuddeford is given the Bassoon of Today
2) September 2010 – Cuddeford requests a recording of possible trills based on the Bflat’ of the bassoon
3) 23 January 2011 – sketch 1 is recorded (CD 3 track 3)
4) January 2011 – Cuddeford requests a recording of possible multiphonics from specific notes
5) 29 January 2011 – sketch 2 is recorded (CD 3 track 4)
6) March 2011 – final version is completed
7) 12 April 2011 – première performance in Pilgrim Church, Adelaide
8) 21 April 2011 – second performance given as a live radio broadcast on 3MBS Melbourne (CD 3 track 1)
9) August 2011 – Cuddeford gives suggestions for future performances based on recordings
10) 25 July 2012 – recording of completed work made for ABC Classics (CD 3 track 2)

James Cuddeford’s interest in trills originating from the Bflat’ of the bassoon, led directly to Koan II’s melodic structure, which is based on the harmonic series of notes based on Bflat’. Several of the work’s most notable musical climaxes reflect this:

Example 3.4: Koan II, page 2 system 5 (CD 3 track 2 – time index 4:29)
Koan II is an example of a comprehensive assimilation of the new techniques into a modern solo work placing the bassoon in a musical struggle for its identity. During Koan II, the bassoon must fight to stop transforming into other instruments that are symbolized by the use of the new performance techniques. A koan is a technique used by certain Zen practitioners during meditation.\(^5\)

The bassoonist must at times discover the timbral qualities of his instrument afresh in order to attain the impossible “koan” and prevent the bassoon from transforming into a different instrument. The horn in its many guises - the raw Tibetan horn, the distant foghorn, the natural horn - are evoked by the bassoonist.\(^4\)

In Koan II, the bassoon mimics the Tibetan horn through the use of flutter tonguing on a Bflat’, the distant foghorn with multiphonics and the natural horn with a combination of timbre trills and microtonality.

### 3.4 Andrew Schultz

Sequence of collaborations with Andrew Schultz:

1) July 2010 – first discussion via email of a possible new work
2) December 2010 – second discussion via email of the work’s projected shape. Composer given The Bassoon of Today
3) February 2011 – Schultz requests a recording of examples of upper register trills
4) 12 March 2011 – sketch 1 is recorded (CD 3 track 7)
5) April 2011 – first version is completed
6) May 2011 – a request is made that the work contain more passages requiring circular breathing and that the work is more technically difficult
7) June 2011 – final version is completed
8) 13 November 2011 – première performance given as a live radio broadcast for the ABC Sunday Live concert series (CD 3 track 5)
9) December 2011 - Schultz gives suggestions for future performances


\(^4\) James Cuddeford, Koan II program notes (See Part D, D.3).
Deep Blue and Dirty was commissioned and composed in the first half of 2011 after a six-month period of discussions about the possible shape of the piece. Although it was originally requested that the work to be for solo bassoon, Schultz was adamant that the new work should include piano accompaniment which would provide the compositional opportunity to link the low register colour of the bassoon with the piano’s low register. The work takes the form of a set of double variations based on two main themes; the first is nicknamed “deep blue” and the second “dirty”.

The themes are heard in succession at the start of the work, and then variations on each theme occur. In total there are nine variations – four on the first theme and four on the second with the final (ninth) variation being on both themes at once. All of this happens without interruptions so that the overall work unfolds as the piece moves between the two themes. The work explores the full range of the bassoon and makes use of trills, slides and long sustained passages suited to circular breathing.\textsuperscript{55}

The series of discussions with Schultz were less involved and important to the resulting piece than those that transpired with Cuddeford, Abbott and Altmann. Schultz had a clearer conception of the work before collaborations began and only reluctantly included passages requiring circular breathing and glissando.

3.5 Charles Bodman Rae

Sequence of collaborations with Charles Bodman Rae:

1) April 2011 – first discussion of a possible new work
2) May 2011 - Bodman Rae supplies scores and recordings of his earlier works featuring woodwind instruments
3) September 2011 – the idea of the new work being composed for bassoon with other accompanying instruments (violin, clarinet and harp)
4) March 2012 – first email discussion regarding the inspiration for the new

\textsuperscript{55} Andrew Schultz, Deep Blue and Dirty program notes (See Part D, D.4).
work
5) March 2012 – first meeting where extended techniques are demonstrated
6) May 2012 – first score of *Ceol Mor II* is produced and examples demonstrated
7) June 2012 – a revised score is given to the performer
8) 25 July 2012 – recording of completed work made for ABC Classics (CD 3 track 8)

The process of collaboration through meetings with Bodman Rae was pivotal to the inclusion and featuring of harmonics in *Ceol Mor II*. The extended technique fulfills the musically driven goal of wanting the bassoon to mimic bagpipe drones in order to convey the Celtic influence of the work. During meetings, the possibility of producing harmonics was discussed and a demonstration was given for the composer of the way in which it is possible to morph through the harmonic series while fingerling a low register pedal note.

Example 3.5: *Ceol Mor II*, bars 115 – 124 (CD 3 track 8 – time index 8:40)

The example above shows morphing through overtones in order to link the lower partial with melodic material.

*Ceol Mor II* incorporates an expressive use of falling portamenti in order to convey sadness. This mood is prevalent in Gaelic songs and is linked to the memorial dedication of *Ceol Mor I* for violin, clarinet and piano. The process of meetings and demonstrations of sketched material was instrumental in combining this technique
with the bassoon’s singing tenor voice. Also featured extensively is the use of multiple grace notes to simulate piobaireachd variations on the highland bagpipes. Each of the variations included in *Ceol Mor II* has a traditional Gaelic name that reflects this influence.

### 3.6 Gerard Brophy

Sequence of collaborations with Gerard Brophy:

1) December 2010 – first discussion of a possible new work
2) April 2011 – first meeting to discuss the projected shape of the new work
3) August 2011 – composer is sent recorded examples of solo bassoon works and the Bassoon of Today essay
4) September 2011 – second meeting including demonstrations of extended techniques
5) April 2012 – third meeting to discuss the new work and possible date of première
6) May 2012 – composer requested specific information regarding range and ease of playing on specific notes
7) 20 July 2012 – score of new work given to performer
8) 27 July 2012 - recording of completed work made for ABC Classics (CD 2 track 8)

The process of collaboration with Brophy did not have a large impact on *Devdas*. The score does not indicate any extended techniques and there are no program notes or performance instructions accompanying the work. The composer suggested verbally in the days preceding the first performance that harmonic tonguing, water tonguing and timbre trills could be added at the performer’s discretion. This freedom of choice given to the bassoonist created a work that could evolve through future performances and experimentation with the free application of extended techniques.

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56 Charles Bodman Rae, *Ceol Mor II*, program notes (See Part D, D.5).
Despite this sense of freedom, the composer did intend for the repeated bars in the first movement to incorporate circular breathing in order to build momentum and tension during the repeated sections.

Example 3.6: *Devdas*, mov 1, bars 1 – 3 (CD 2 track 8 – time index 0:01)

The use of circular breathing in this fashion adds to the creation of musical tension and anticipation.

### 3.7 The Performer as Composer: exploring avenues of expression

The process of learning *Sequenza XII* and the series of collaborative efforts that led to the newly composed works, gave rise to a new avenue of thinking during this research project: why should the performer not also be the composer? The knowledge of playing techniques and previously composed repertoire by an instrumentalist during lessons, private practice, rehearsals and performances presupposes that a performer is eminently qualified to compose for their given instrument.

This investigation into exploring avenues of expression on the bassoon has produced three newly composed works and one arrangement of *MultiSonics* (arranged after several performances).
The inspiration for the bassoonist composing works for inclusion in this submission began in March 2010 after initial meetings and discussions with Abbott and Altmann had commenced. The process of discussing compositional ideas and concepts led to the idea that composing was, like interpreting and performing a piece, simply another form of personal expression that could be explored in order to develop more advanced musical skills. As Abbott and Altmann were investigating the sound world of the bassoon, it provided the opportunity for the author to re-experience qualities of the instrument through this collaboration. The interaction led to an invigoration in enthusiasm for allowing the instrument’s voice to emerge through new compositions.

The act of stepping back from the primary role of being a bassoonist and exploring the process undertaken for this submission from a different angle has formed a new way of documenting the journey.

It also occurred at this time that knowledge and experience in composition could lead to a greater understanding of Berio’s style and more assured interpretations of modern works. The concept of being able to step inside the composer’s mind and be more completely able to comprehend the divide between musical intention and notational issues aided the performances given. It is the act of learning through experience and active participation that has been essential in the search for a stronger connection to Sequenza XII and the newly commissioned works.

It was this desire to find a stronger and more complete musical voice that has led other performers to compose. The virtuoso double bassist Edgar Meyer (b. 1960) is an example of an instrumentalist exploring their instrument through composition.

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He states that it is the search for an inner musical voice in conjunction with a limited amount of repertoire for solo bass that has inspired him to compose.

The repertoire that exists for solo bass, accompanied or not, is of little interest... there is not anything that would be considered even a second- or third-tier piece if it was written for violin or piano. So it is convenient that I like to compose, and the scarcity of repertoire is certainly part of the motivation, but it is not the primary motivation. The need to express or find my voice is one motivator, and curiosity would be the other primary one.

It is hoped that the inclusion in this submission of works that are composed by the performer will encourage other instrumentalists to explore this avenue of expression. Acknowledgment is given to other performer/composers who are a source of inspiration such as Bernard Garfield (b. 1924) (former Principal Bassoon, Philadelphia Orchestra, composer), Heinz Holliger (b. 1939) (international oboe soloist, composer, conductor), Brett Dean (b. 1961) (former violist Berlin Philharmonic Orchestra, composer) and Edgar Meyer.

3.7.1 **The 21 Thoughts of Toru in the Well**

*The 21 Thoughts of Toru in the Well* is a composition inspired by the novel *The Wind-Up Bird Chronicle* by the Japanese novelist Haruki Murakami. The work aims to associate the obsessive and psychologically driven climbing in-and-out of a deep well by the central character Toru, with the slow ascending and descending glissandi. The work uses extended techniques to musically capture Toru’s thoughts as they echo around the well in which he sits.

This work forms the first attempt at composition as part of the performer as the composer experiment. The early stages of developing the work moved slowly but the process was encouraged by the sense of establishing a closer connection with the

bassoon. The ability to conceive a musical idea and then examine it by immediately testing the music on the instrument was a refreshing experience. The immediacy of the process of composing in this manner nourished and nurtured the sense of musical performance being alive and in the moment. Above all it provided inspiration to compose more and to explore other compositions with a clearer inner-voice.

The concept behind *The 21 Thoughts of Toru in the Well* was to compose an extremely technically difficult middle section that would culminate in a succession of wild Berio trills. This would be bookended by lyrical outer sections that incorporate extended periods of soft, meditative playing using the circular breathing technique. The work is based on a twenty-one note rhythmical pattern that underpins and unifies the music.

3.7.2 *The 21 Thoughts*

*The 21 Thoughts* explores the idea of showcasing bassoon extended techniques from within a chamber ensemble of violin, clarinet, horn and double bass. The bassoonist plays glissandi, harmonic tongued notes and Berio trills while the other instruments act as a mirror image reflection of the solo part. A sense of heightened tension is created through the juxtaposition of sounds being heard. As an arrangement of *The 21 Thoughts of Toru in the Well*, *The 21 Thoughts* aims to preserve the essence of the original work while extending its expressive range and depth through the ensemble.

Certain scenarios are outlined in the formal structure of the work, which aim at deepen the connection between the character of Toru in Murakami’s novel, and the character of the bassoon within the fabric and texture of the music. The piece is divided into the following subsections where the violin is assigned the character of Kumiko:

- Toru
- In the Well
- Kumiko
- Toru and Kumiko’s Dance
• Toru and the 21 Thoughts
• Toru Emerges Victorious

The work contains within it interactions in the form of duets where the instruments briefly converse or duel. Notably this occurs between bars 189 and 211 where the clarinet and horn enjoy a playful and at times combative dialogue.

3.7.3 Fragments of Siegfried

Fragments of Siegfried is a work inspired by Richard Wagner’s opera from Das Ring des Nibelungen, Siegfried. It incorporates quotations of lied motives and directs the bassoonist to play as if they are the character Siegfried in Scene 3 Act 2 of Wagner’s work. During the scene, Siegfried attempts to evoke bird song on a crudely fashioned reed and then plays his own heroic horn call while he waits in the forest to slay the dragon Fafner with his sword. In Fragments of Siegfried, musical material representing this moment in the opera is conjured forth by the bassoonist as if by magic:

Several extended playing techniques, including circular breathing, are incorporated to represent Siegfried’s super human qualities and are a way for the bassoonist to cast a spell over the audience by displaying heroic feats of endurance, skill and imagination.

The extended techniques are incorporated in such a way that they increase the dramatic intensity and flow of the performance and allow the bassoonist a further expressive tool. The introductory minor seventh intervals in bars 17 – 22 form a central motivic component that is expanded and developed into the high register, reaching up to an eflat.

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65 Mark Gaydon, Fragments of Siegfried, program notes, (See Part D, D.9).
Example 3.7: *Fragments of Siegfried*, bars 17 – 30 (CD 4 track 4 – time index 1:25)

An underlying structural signpost is a recurring horn call figure that evolves throughout the piece and ultimately transforms into a succession of multiphonics in bar 186. The work culminates in an extended passage requiring double circular breathing where the bassoon sings a soft, dreamy high register melody.

### 3.7.4 MultiSonic Reflections of Light and Sound

*MultiSonic Reflections of Light and Sound* is an arrangement based on *MultiSonics* by Katy Abbott. Completed with the permission of the composer, the work aims to explore Abbott’s idea of exploiting the bassoon’s multiphonic capabilities. It was after several performances of *MultiSonics* that the concept of writing an alternative arrangement from a performer’s perspective emerged with the resulting composition aimed at sounding like a notated improvisation on the original work. Prior knowledge of *MultiSonics* is not a prerequisite for interpreting *MultiSonics Reflections of Light and Sound*.

*MultiSonic Reflections of Light and Sound* re-orders and condenses the musical gestures of *MultiSonics*. It preserves the key thematic material while
subjecting it to a process of development in the same way that a jazz musician might extrapolate variation from a theme while improvising. The result is a personal impression that developed through performances of the original work and the assimilation of Abbott’s music through the interpretative process.

Much of the variation appears in the form of rhythmical alterations and the interruption of slow melodic episodes with fragments of virtuosic material. In this way the various themes of *MultiSonics* are made to interact with each other in a deeper way than if the themes were heard separately. Several of the more meditative sections are enhanced and extended through the use of double circular breathing to produce a timeless effect.

Example 3.8: *MultiSonic Reflections of Light and Sound*, bars 54 – 64 (CD 4 track 6 – time index 3:09)

Example 3.8 demonstrates the way in which the Lost Song tenor register idea is interrupted by suddenly faster material in the lower register, which in turn provokes a stronger answer from the upper voice. This interplay of melodic material is integral to the work.
CHAPTER 4

Commentaries on the Recorded Performances

4.1 Sequenza XII for solo bassoon (1995) by Luciano Berio: CD 1 tracks 1 - 4

CD 1 Sequenza XII: documenting the journey demonstrates the progression of executing extended techniques and of deciphering and translating musical concepts into performances. The four recordings of Sequenza XII made between November 2009 and July 2011 show a progression in the ease of technical proficiency as well as an increasingly greater sense of musical flow. It is notable that the musical ideas become more unified as the extended techniques were integrated into the bassoonist’s style. This can be heard when comparing practice performance 1 (track 1) from 2009, and the final recorded live performance in 2011 (track 4) where the work is 3:40 minutes shorter in duration and the persuasiveness of the phrasing is more direct and immediately intelligible.  

Upon reflection it is unclear which sections of Sequenza XII are faster on track 4. It appears that the time difference is due to a general streamlining of musical intent where the final performance explores a greater sense of tension and urgency in resolving the glissandi. In the two live performances (tracks 3 and 4) the pressure of having to maintain continuous sound made the interpretation less meditative and more combative in nature. The violent aspects of Berio’s work and the drama created by both instrumentalist and instrument being pushed to their limit are brought to the fore. Also of note in the final performance is the sense of musical direction moving through the Berio trill passages. This involves emphasizing and moving towards the harmonic changes and treating the trills as phrasing signposts rather than textural devices.  

In the author’s opinion the second progress recording (track 2) strikes a pleasing balance in interpretation and execution and is the best of the included performances (this was not a public performance). Although the quality of the
recording is less flattering on track 2, there exists a sense of balance and ease of connection to the music that is desirable.

A notable omission in all of the recordings is the failure to use Gallois’s special sound fingering in the work’s closing triplet figure. In the recordings this triplet is played in a reasonably strict tempo, which makes executing the recommended fingering cumbersome. Upon reflection, the use of the suggested fingering would enhance the drama of the moment and would require treating the triplet with rhythmical freedom. This will be used in future performances of the work.

It is important to note that each recorded performance of Sequenza XII was completed reading from printed music. Performance One was from the published Universal Edition notated on two staves (a bass and tenor clef stave), and the subsequent performances were given using a hand-written, single stave version made by the performer. The single stave version was created in order to enable greater ease in reading the music without having to visually jump between tenor and bass clef staves and to facilitate the setting of music on the music stand during performances. The Universal Edition is presented as eight oversized pages, which results in page turning difficulties during performances.

It is unclear from listening to the recordings if either printed version promotes a better interpretation. In future performances, it is suggested that Sequenza XII be performed from memory in order to ascertain if this aids a more compelling performance. Other factors that could be explored are the use of lighting effects or costume.

4.2 MultiSonics for solo bassoon (2010) by Katy Abbott (CD 2 tracks 1 – 4)

MultiSonics incorporates the following extended techniques:
- circular breathing
- double circular breathing
- flutter tongue
- soft staccato
- multiphonics
- timbre trills
- glissando

The *MultiSonics* recordings are presented as two performance versions and two sketches displaying the works evolution. The sketched material was recorded exclusively for Katy Abbott and is of poor recorded quality but is included in this submission as it represents the process of synthesizing extended techniques through collaboration. The first performance (CD 2 track 1) is of the complete work, while the second performance (CD 2 track 2) includes a cut from bar 103 to 133. The decision to exclude this material was decided upon after several performances of the complete version and eliminates repeated, slow melodic elements in order to allow for a more thorough sense of musical flow.

It was the process of collaborating through sketched material that emboldened Abbott to explore the concept of the bassoonist executing more than one extended technique at a time. The two recorded sketches (CD 2 track 3 and 4) contain a large amount of material that Abbott subsequently whittled down and refined into the performance versions. The way in which each version appears renewed and enlivened is a testimony to the success of the process of collaboration through sketches.

Examples of extended techniques being fused together occur at the following times in the recorded performances. Multiphonics combined with timbre trills (CD 2 track 2 – time index 0:01), glissando with flutter tongue (CD 2 track 2 - time index 3:43) and water tongue merged with timbre trill and regular tone production (CD 2 track 2 - time index 5:48).


*Star of Anise* was recorded on two occasions. The first performance (CD 2 track 5) was a complete rendition of Altmann’s score and the second performance (CD 2 track 6) was a shorter revised version allowing the bassoonist to prolong interest during the prominently minimalistic melodic and rhythmic sections. The cuts were made without the preapproval of the composer and it is unclear whether they improve the work. It is interesting to note as a performer that as the length of the
piece decreased it was more possible to cultivate the work stylistically and maintain musical freedom and interpretative comfort.

The recordings demonstrate the greater ease achieved in the second, shorter performance, which occurred twenty months after the première. The sense of musical flow and development on track 5 is searching for a lyrical approach that upon reflection does not suit the fragmented nature of the piece. The revised version on track 6 highlights Altmann’s regular breathing marks by accentuating the regularly halting feeling they give the work. The consequence is a more characteristic rendition that adapts the breathing indications and allows for a more simplified and pleasing portrayal of the composer’s intentions.

Example 4.1: *Star of Anise*: opening passage (CD 2 track 5 – time index 0:01)

![Example notation](image)

*the time between breath marks should be as long as a full cycle of breathing*

The sketches (CD 2 track 7) that were recorded for Altmann in the early stages of *Star of Anise*’s conception are a collection of examples of timbre trills, multiphonics and water tongued notes. The intention to employ these techniques was later abandoned by the composer.

4.4 *Koan II* for solo bassoon (2011) by James Cuddeford (CD 3 tracks 1 – 4)

*Koan II* incorporates the following extended techniques:

- circular breathing
- Berio trills
- flutter tonguing
- multiphonics
- microtonality
- timbre trills
Two recorded performances of *Koan II* and two sketches of collaborative material have been included on CD 3. The first performance (CD 3 track 1) is a more fiery interpretation that is less faithful in its adherence to the score. The second performance (CD 3 track 2), on the request of the composer, is more restrained in its expression and aims instead to define Cuddeford’s tempo relationships with greater clarity. It is unclear which of these interpretations is more successful as both emphasize compelling aspects of the work. Recommendations for future performances may include a contrasting interpretation that mixes elements of both.

Of particular note in the recordings of *Koan II* are the various musical characters that must be imitated during a performance of the work. The bassoonist must strive not only to execute the complicated rhythmical and technical figures but also to reconcile the composer’s wishes that the bassoon is fighting to stop becoming other instruments.

*Koan II* consists of one unbroken movement of 14 minutes duration, and it places enormous demands on the player’s technique and stamina. The pitch content is based upon spiraling rows of harmonics originating from a low B flat fundamental, which is heard at the beginning. This generating “tonality” is subsequently brought to the fore in alternating sections that concentrate almost exclusively on aspects of this tonic row. The bassoonist must at times discover the timbral qualities of his instrument afresh in order to attain the impossible “koan” of transforming into a different instrument. The horn in its many guises - the raw Tibetan horn, the distant foghorn, the natural horn is evoked by the bassoonist.\(^66\)

Example 4.2: *Koan II*, page 3 system 2 (CD 3 track 2 – time index 7:25)

\[\text{Example 4.2: Koan II, page 3 system 2 (CD 3 track 2 – time index 7:25)}\]

A compelling use of multiphonics can be heard on CD 3 track 1 – time index 7:02 where the bassoonist evokes the distant foghorn. The use of a multiphonic at this

\(^{66}\) James Cuddeford, *Koan II*, program notes (See Part D, D.3).
point in *Koan II* is a result of the second sketch (CD 3 track 4) recorded for the composer, which demonstrates a range of possible multiphonics.

### 4.5 Deep Blue and Dirty for bassoon and piano (2011) by Andrew Schultz (CD 3 track 5 – 7)

*Deep Blue and Dirty* incorporates the following extended techniques:

- circular breathing
- glissando

Two recordings of *Deep Blue and Dirty* have been included in this submission. Each one represents the process of learning the piece and of reconciling technical difficulties in the pursuit of the ultimate artistic goal. Schultz’s composition is relatively simple with regards to its melodic and harmonic material but requires the performer to extract a deeper meaning and musical purpose from often short, repeated figures. The first recording (CD 3 track 5) reveals initial attempts to infuse a sense of unity without making the figures too complicated. In contrast, the second recording (CD 3 track 6) has a more successful sense of musical cohesiveness that was achieved through the experience of giving the previous performance and the ensuing collaboration with Schultz.
Example 4.3: *Deep Blue and Dirty*, bars 1 – 18 (CD 3 track 6 – time index 0:01)

Notably omitted in the first performance are the above opening trills of the work that were deemed during rehearsals to be too difficult. After discussions with the composer before the second recording, it was decided that they should be reinstated but treated with greater freedom to facilitate ease of technical execution. The above passage is performed using circular breathing.

The issue presented to the bassoonist is one of incorporating an upper register trill in an expressive melodic manner. The second performance demonstrates that with a sense of using the trill as one would ordinarily use vibrato, by increasing intensity as the expressive need arises, a convincing effect is possible. Schultz’s use of trills is a result of the sketches (CD 3 track 7) recorded at the request of the composer. The recording provides examples of trills in different registers of the instrument.
4.6 *Ceol Mor II* for solo bassoon (2012) by Charles Bodman Rae (CD 3 track 8)

*Ceol Mor II* incorporates the following extended techniques:

- circular breathing
- harmonics
- timbre trills
- glissando (portamento)

*Ceol Mor II* is unique in this collection of newly commissioned works for the composer’s exploration of harmonic sounds. Bodman Rae asks the bassoonist to mimic the sound of a bagpipe drone by morphing between harmonics based on the low notes of the instrument. At times the drones stand alone as musical signposts directing the flow of the work, while they also link melodic ideas. Upper harmonic pitches often become a starting point for fresh melodic material. The bass note of the harmonic sounds are also used to link sections of the work by suggesting pitch relationships.

The incorporation of harmonics allows the bassoonist the opportunity to explore key technical issues associated with the effect. The realization of the harmonic morphing requires that the embouchure is loose and positioned closer to the tip of the reed. The air stream then responds with greater or lesser intensity as the harmonics demand. The resulting effect is heavily dependent on the individual characteristics of the reed being used and the bassoonist must be careful to respond aurally to the spectrum of pitches being produced.

In future performances of *Ceol Mor II* the issue of finding precision and consistency in the production of notated pitches associated with harmonics will be a particular focus.

Upon re-listening to *Ceol Mor II*, several issues of importance have emerged regarding the performance of the work. The emphasizing of the portamenti in a vocal way, rather than an instrumental one, is crucial to maximizing their expressive effect. The bassoonist must aim to truly sing the phrases through the instrument to achieve the appropriate quality. The featuring of c" in the closing passages is reminiscent of
the use by Stravinsky of this pitch in the bassoon solo in the opening bars of *The Rite of Spring*. An attempt should be made to capture the stark timbre of Stravinsky’s work in the corresponding bars at the conclusion of *Ceol Mor II*.

**4.7 Devdas for solo bassoon (2012) by Gerard Brophy (CD 2 track 8)**

Devdas incorporates the following extended techniques:

- circular breathing
- harmonic tonguing
- water tonguing

The inclusion of extended techniques in *Devdas* is at the discretion of the performer. Brophy does not notate any extended techniques in his score but left verbal instructions to incorporate them ad lib in performance. The composer has not written program or performance notes. The recorded version of *Devdas* (CD 2 track 8) therefore is only one possibility as to how the work could be represented and allows the bassoonist to add a personal touch based on mood and temperament in performance.

Movement one has a slow and steady build up of energy that is conducive to the use of circular breathing to maintain the forward momentum suggested by the active melodic figures. Including a slur over the notes found in bars 3 and 6 has facilitated opportunities to employ circular breathing. The repeated low register material found in the final bar and three bars from the end allow the performer to include ad lib harmonic tongued notes to add variation and colour to repeated material, while the melodic figure on page 2, system 4 can be enhanced through the inclusion of water tonguing.
4.8 The 21 “Thoughts” of Toru in the Well for solo bassoon (2010)
(CD 4 track 1 -2) by Mark Gaydon

The 21 Thoughts of Toru in the Well incorporates the following extended techniques:
- circular breathing
- glissando
- Berio trills
- water tonguing
- harmonic tonguing
- flap

Two performances of The 21 Thoughts of Toru in the Well are included on CD 4. The first (track 1) was recorded in a recital six months after the première (10 November 2010) on 12 April 2011. The second (track 2) is an edited for radio broadcast version recorded on 26 July 2012. The later rendition shows a general maturing in the approach to the work with the sense of beauty during melodic passages being intensified and the hectic technical sections acquiring a greater sense of control and confidence.

Example 4.4: The 21 Thoughts of Toru in the Well, bars 8 – 9 (CD 4 track 2 – time index 1:16)

The passage above takes fragments of the work’s twenty-one note rhythmical pattern and explores it using harmonic tonguing. The same pattern can be heard in numerous guises throughout the recorded performances and serves to unify the work from the listener’s perspective. An important point of consideration in a performance of The 21 Thoughts of Toru in the Well is the fusing of glissando within virtuosic technical passages. On track 1 and 2 an attempt was made to use the glissandos as
momentary pauses in the building musical flow and to play on the tired feeling presented by the sliding changes in pitch.

Example 4.5: *The 21 Thoughts of Toru in the Well*, bars 65 – 72 (CD 4 track 2 – time index 5:00)

Through bars 65 and 66, momentum is built towards the glissando in bar 67 when the intensity is surrendered momentarily. This pattern can be heard repeated in various forms as a way of pushing-and-pulling the listener during performances and as a technique for creating false and real climaxes for the bassoonist to exploit.

4.9 *The 21 Thoughts* for bassoon solo and ensemble (violin, clarinet, horn and double bass) (2011) (CD 4 track 3) by Mark Gaydon

*The 21 Thoughts* incorporates the following extended techniques:

- circular breathing
- double circular breathing
- glissando
- Berio trills
- water tonguing
- harmonic tonguing
- flap
In the recording of *The 21 Thoughts*, a notable feature is the extended periods of continuous sound in the bassoon part. A significant example of this occurs between bars 202 and 234 (CD 4 track 3) where the bassoonist plays a continuous e´ while the other instruments scurry and makes statements in response to the calm held note. The intention behind the double circular breathing in this case is to act as an accompaniment to lines of more melodic interest and to add the allusion of timelessness that would otherwise be broken by a necessary stopping of the sound.

The sliding effect created by the use of glissandi in the bassoon line is made more effective by having fixed pitches sounding in other parts. This does create a harmonic problem at times as a measured glissando against certain melodic figures can momentarily create overly dissonant intervals. An example of this potential issue can be heard in bars 25 – 30. The interplay of the bassoon and violin parts requires a great deal of care on the part of the bassoonist to carefully maneuver around the more melodically interesting violin solo statements. In future performances, it may be necessary to alter the notation of the bassoon glissandi to reflect more completely the fingering action required.

A pleasing effect is created between bars 157 and 171 in the section called Toru and the 21 Thoughts. As the bassoonist plays an increasingly agitated sequence of Berio trills the other instruments join one-by-one introducing their individual colour and adding to the climactic result.

4.10 *Fragments of Siegfried* for solo bassoon (2012) (CD 4 track 4)

*by Mark Gaydon*

*Fragments of Siegfried* incorporates the following extended techniques:

- harmonic sounds
- circular breathing
- double circular breathing
- multiphonics
- flutter tonguing

*Fragments of Siegfried* presents several challenges to the bassoonist during
performance. The work’s numerous passages of continuous sound create the issue of playing while fatigued and the many quotes of Wagner must be apparent in the interpretation without being an overwhelming feature. This requires considerable musical restraint while maintaining physical equilibrium and poise, which is demanding under performance conditions. Also, there is a high risk of the work’s concluding multiphonics not responding effectively and therefore creating a psychological distraction in the preceding material.

Example 4.6: *Fragments of Siegfried*, bars 181 – 187 (CD 4 track 4 – time index 9:12)

In the example above, the performer is asked to imagine that in place of a horn, Siegfried instead plays a bassoon and uses his superhuman powers to conjure forth magic from the instrument in the form of extended techniques. In the performance of this work, the incorporated extended techniques are executed to represent musically the way Siegfried summons forth the mythical strength and courage he uses to slay the dragon.

The opening phrase of the work uses circular breathing to extend its expected length while a harmonic sound in bar 112 represents otherworldly powers. The piece concludes with a series of multiphonics aimed at showing the bassoonist’s (Siegfried’s) ability to extend the expressive range of the bassoon.
MultiSonic Reflections of Light and Sound incorporates the following extended techniques:

- double circular breathing
- multiphonics
- water tonguing
- timbre trills
- glissando
- Berio trills

The two included recorded performances are an initial first version (CD 4 track 5) and a second version (CD 4 track 6) that includes revisions. An attempt was made in this arrangement to highlight and expand upon the key musical moments as they occurred during performances of the original work, MultiSonics by Katy Abbott. An introduction was added and expanded upon in version two while the ascending glissando from dflat’ to c” is featured more prominently in MultiSonic Reflections of Light and Sound.

Example 4.7: MultiSonic Reflections of Light and Sound, bars 144 - 146 (CD 4 track 6 – time index 7:03)

The use of extended passages supported by circular breathing in MultiSonics have been prolonged further through double circular breathing in bars 144 – 146 to emphasize the effect of continuous sound. In the passage above, the fermata is to be
held as long as necessary to create tension in performance as the c#” is allowed to fall occasionally into a cacophonous multiphonic noise. In the performances an attempt was made to create a feeling of the work slowly disintegrating at this point after a lengthy period of building tension through chromatically ascending figures.
Conclusion

This doctoral submission for the Elder Conservatorium of Music, University of Adelaide has been a performer’s journey involving a process of practising, interpreting and performing Berio’s milestone composition *Sequenza XII* for solo bassoon. It provides an account of the evolution of the work for a bassoonist during preparation and offers suggestions for executing the numerous extended techniques included in the work. Part A, CD 1 *Sequenza XII: Documenting the Journey* demonstrates the way in which the piece’s extended techniques and interpretive issues developed between 2009 – 2011.

Vital to the study of *Sequenza XII*’s evolution has been the commissioning and performing of new works by Australian composers that incorporate the same extended techniques used by Berio. The vital partnership that existed between Berio and *Sequenza XII*’s dedicatee bassoonist Pascal Gallois, was used as a template for these collaborations that explore the way in which extended techniques can be synthesized into newly conceived compositions. This body of new work makes a contribution to the field by extending and expanding the repertoire for the bassoon.

Upon re-listening to the recorded performances of *Sequenza XII*, it is clear that the extended techniques included do expand on the established expressive range of the bassoon. Bassoonists can and should investigate this composition, with the performance suggestions included in this submission making it easier for this to occur.

Of particular note during this research project has been the success of the collaborations with composers. The newly commissioned works synthesize the *Sequenza XII* extended techniques effectively and seamlessly and indicate that a joint effort between composer and instrumentalist is advantageous in opening up new musical horizons for the bassoon. The notion of broadening a composer’s knowledge of the instrument through exchanges of information has led to a more thoughtful and significant representation of the bassoon’s expressive potential in the scores discussed.
The newly commissioned works are significant in that they deserve to be performed extensively as part of the bassoon’s contemporary repertory in the future. All of the works present substantial challenges to performers and are compositions of musical depth and substance.

A supplementary exercise to the venture of commissioning new works has been the performer as the composer element where three new works and one arrangement of Abbott’s MultiSonics have been contributed. This accompaniment to the Sequenza XII performer’s journey and the collaborations with composers has proved successful in advocating that a performer can compose for their instrument and that the procedure of composing can act as a way of developing the expressive range of the instrumentalist. This was the case when performing self-composed work and also aided in interpretative facility with works of other composers.
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PART C
Supplementary Material

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