Suite for Virtual Double Bass:
A Three Dimensional Composition Based on
Original Digital Sounds Created by
Computer Assisted Transformation of
Original Recorded Sound Samples

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This research accumulates and furthers my knowledge of what I have learnt in the course of Electro-Acoustic Music in my former MA in Music. In addition to the control of melody, rhythm, dynamics and articulations, compositional considerations for an electro-acoustic piece may include other new dimensions, which are the focus behind both the research and compositional intent of this project. For example, with the assistance of computer technology, details of sounds can be digitally manipulated and transformed, particularly on the micro-time level (0.001 seconds to 0.1 seconds), into new sounds and new timbres, giving the composer a large palette of sonic colours. The control of spatial design of the sonic lines can also be considered as compositional elements in the piece. This adds another dimension towards conventional music that is primarily formally organized in terms of pitch and rhythm (or frequency and countable time, as opposed to micro-time). The resultant sound samples from the experimental research are used as 'sonic seeds'¹ and compositional considerations for the seven-movement piece, Suite for Virtual Double Bass.

I intend to use the sonic output of the electro-acoustic music composition as my creative application of some of the methods and ideas developed through the research, reflecting the power and efficiency of these processing methods. Some of which are developed through computer assisted research and experiments on selected sonic characteristics. Originally recorded sound samples from a double bass

¹This term is created by Dr. John Chen, and is used in his electro-acoustic music papers and lectures, to label the initial role of these recorded sounds which are later used by the composer through a long nurturing process of development and transformation.
are to be used as the basic material for the research work and the composition itself. Research work relating to the manipulation and transformation of minute details of every sound as well as the spatial design are therefore essential towards the contribution of the materials to be used.
# TABLE OF CONTENTS

Abstract .............................................................................................................................. i
Acknowledgements .......................................................................................................... iii
Table of Contents ............................................................................................................. iv
Introduction ...................................................................................................................... 1

Chapter

1. Experimental Research and Findings on Timbral Related Work ................................ 4
   1.1. Recording of Tones .............................................................................................. 4
   1.2. Digital Sound Wave Manipulation .................................................................... 8
       1.2.1. Noise Reduction ......................................................................................... 8
       1.2.2. Sound Wave Crossfading .......................................................................... 8
       1.2.3. Sound Wave Mixing .................................................................................. 13
           1.2.3.1. Time Scaling ....................................................................................... 13
           1.2.3.2. Amplitude Scaling .............................................................................. 15
       1.2.4. Attack Manipulation .................................................................................. 17
       1.2.5. Sound Wave Reversing ............................................................................. 19
       1.2.6. Other Techniques ...................................................................................... 20
   1.3. Time Expansion and Compression ..................................................................... 21
       1.3.1. Time Expansion ......................................................................................... 21
       1.3.2. Time Compression ..................................................................................... 21

2. Experimental Research and Findings on Spatial Related Work ................................. 22
   2.1. Use of Original Distant Samples ....................................................................... 22
   2.2. Time Shifting of Sound Waves ......................................................................... 23
   2.3. Time Crossfading ............................................................................................. 25
   2.4. Spatial Localization ............................................................................................ 26