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# **The Electric Guitar in Contemporary Art Music**

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A thesis submitted in fulfilment  
of requirements for the degree of  
Doctor of Philosophy

Sydney Conservatorium of Music  
Sydney University

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# Statement of Originality

I declare that the research presented here is my own original work and has not been submitted to any other institution for the award of a degree.

Signed: .....

Date: .....

# Abstract

Since 1950 the electric guitar has occupied an ever-increasing presence in contemporary art music both as a solo and chamber instrument. Although the electric guitar is still on the fringe of mainstream classical music, the instrument is more popular now amongst contemporary art music composers and contemporary art music ensembles than in previous times. This dissertation is divided into three sections. The first, Section A, is an introduction to the electric guitar, with a focus on its history and role in both western popular music and western art music. Chapters 2 and 3 address the development of the electric guitar, the electric guitar in American popular music and the development of art music repertoire featuring the electric guitar.

Section B (Chapter 4) includes the analysis of forty-eight interviews given by musicians involved in composition, performance and musicology for the electric guitar. The focus of this section is on the interviewees' experiences with and common views, perceptions and attitudes towards the electric guitar's role in art music. It also contains common recommendations made by the interviewees regarding writing successfully for the instrument, and addresses the nature of previous collaborative partnerships between composers and electric guitarists.

The final section, Section C (Chapter 5 and 6), is partly an auto-ethnography. It includes the proposition of useful collaborative models. This section also features an in-depth discussion regarding how technological mediation can affect the collaborative process as well as proposing performance and recording logistics that composers should keep in mind when composing for the electric guitar. This dissertation culminates in a detailed, first-hand account of a successful composer-electric guitarist collaboration so

that future composers<sup>1</sup>, considering writing for the instrument, have a model to assist them in their artistic endeavours. Included in the 'Creative Work' portfolio of this dissertation is an mp4 recording (on a USB) of my performance of Georges Lentz's unaccompanied electric guitar composition *Ingwe* at the 2012 Amsterdam Guitar Heaven Festival and my Naxos CD recording of *Ingwe*.<sup>2</sup>

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<sup>1</sup> The term 'composer' in this context refers to composers who have never written for the electric guitar but are interested in writing a work for the instrument.

<sup>2</sup> Georges Lentz, "Ingwe from 'Mysterium' ("Caeli Enarrant..." Vii) for Solo Electric Guitar (2003–2009) Performed by Zane Banks," ([Hong Kong] Naxos, 2011).

## Preface and Acknowledgments

As part of the research process for this thesis, forty-eight interviews were conducted with composers, performers and a musicologist. Ethical approval was granted for the study presented in this thesis from the University of Sydney Human Ethics Committee. Participants were required to read an information document and give informed consent prior to the collection of data. I am very grateful for the interviewees' insights, knowledge and time generously shared during the research for this thesis. I would like to thank my supervisor Professor Matthew Hindson and my associate supervisor Dr Helen Mitchell as well as Richard Toop, Phillip Houghton, Gregory Pikler, Dr James Wierzbicki and Dr Kathleen Nelson for their assistance and guidance throughout the research process. I would like to take this opportunity to express my gratitude to Georges Lentz for choosing me to collaborate with for his unaccompanied electric guitar composition, *Ingwe*. Finally, I wish to thank my family for their support throughout my doctoral studies.

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# 1 Chapter 1: Introduction

I think ... the electric guitar has just always been there, it's so pervasive in all music, certainly in the music you hear everywhere, even if you want to shut it out<sup>3</sup> – Michael Gordon

The electric guitar has transcended being solely a musical instrument: it has become a twentieth-century icon representing technical innovation and cultural revolution.<sup>4</sup> It is an instrument whose influence is far-reaching: it has spawned a multitude of new musical genres, changing the course of western music and popular culture, and since World War II has become part of the sound track to daily western life.<sup>5</sup> However, not all of the instrument's developments and achievements have been in the domain of popular music. Since 1950 the electric guitar has occupied an ever-increasing presence in contemporary art music both as a solo and chamber instrument. Despite occupying a place on the fringes of mainstream classical music, the electric guitar is now more popular amongst contemporary art music composers and contemporary art music ensembles than in previous times.

Unfortunately, there is a scarcity of academic literature concerning the role and function of the electric guitar in contemporary art music.<sup>6</sup> This lack of literature may

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<sup>3</sup> Personal correspondence with Michael Gordon, 1/11/11.

<sup>4</sup> Ray Minhinnett and Bob Young, *The Story of the Fender Stratocaster* (Carlton, 1995), 6.

<sup>5</sup> Walter Carter, *Gibson Guitars: 100 Years of an American Icon* (Los Angeles: General O Publishing Group 1994), 202–04.

<sup>6</sup> The term, 'contemporary art music', in the context of this thesis, includes subgenres of modern classical music such as modernism, post-modernism, electronic music, minimalism, new-simplicity, new-complexity, spectralism and microtonal music. Also included as 'contemporary art music' sub-genres in this thesis are third-stream, improvised music, sound art, noise music and intercultural art music/stylised 'world-art music' (such as tango, bossa nova etc).

impact on the instrument’s future progress in contemporary art music as composers may be intimidated and discouraged at the prospect of composing for the electric guitar if there are only few academic sources to which they can refer as a guide to help them through the compositional process.<sup>7</sup>

Over the six-decade period from 1950–2011, the volume of art music compositions written for the electric guitar increased from 28 to a total of 4,670 compositions<sup>8</sup> (see Table 1). This staggering increase in repertoire is a testament to the electric guitar’s surge in popularity, and its gradual inclusion into music written and performed by contemporary art music composers, performers and ensembles. As seen in the table below, the ‘boom’ period for the instrument has been from 1990 to the present day. There is now a new generation of composers and performers writing for the instrument and championing its cause.<sup>9</sup>

**Table 1: Table of approximate number of electric guitar compositions written per decade as sourced from my electric guitar repertoire list (see Appendix D) and the database, sheerpluck.de (accessed between March 2011 and March 2013)**

Decade	1950– 1959	1960– 1969	1970– 1979	1980– 1989	1990– 1990	2000– 2010
No. of works	28	185	352	549	1251	1744

<sup>7</sup> This ‘guiding process’ for composers should entail outline the instrument’s idiosyncrasies and inform them of existent ‘classical-electric guitar’ repertoire. It should also highlight the common views, attitudes and experiences had by composers who have already composed for the instrument.

<sup>8</sup> These figures are based works available in the public domain.

<sup>9</sup> Refer to Chapter 4 (interviews with composers, performers and a musicologist) for more information on the new generation of composers and performers working with the electric guitar.

## 1.1 Guitars in Western Music

The electric guitar's design evolution and incorporation into popular music has had an indirect but nevertheless important impact on contemporary art music. The electric guitar has since played a pivotal role in popular music since the 1930s and it has been this musical context from which the majority of art music composers have become acquainted with the instrument. In his book *The New Guitarscape in Critical Theory, Cultural Practice and Musical Performance*, Kevin Dawe writes regarding the status of the electric guitar in popular culture and its success:

The guitar is the object of a vast number of dedicated corporate industries and retail trades, is an icon of popular culture in sound and image, a part of global media and developments in advanced technology, and has wide appeal musically and culturally across the planet. Readily available and observable, this wide-ranging evidence supports the claim that the guitar is widely spread, even if there is a small but detailed number of ethnographic studies that are able to support such a claim, or are able to show the full extent (and meaning) of the guitar's role within very many different people's lives. The guitar is clearly much more than a trivial pursuit or casual leisure-time interest for the very many people who make it or play it, but also for those who do neither but appreciate its value in numerous ways.<sup>10</sup>

The electric guitar is the most recent addition in a continuum of fretted, plucked instruments, which date back to the time of the lute (1350 BC) and oud (5000 BC).

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<sup>10</sup> Kevin Dawe, *The New Guitarscape in Critical Theory, Cultural Practice and Musical Performance* (Surrey, UK: Ashgate, 2010), 20.

However, the electric guitar's roots also lie in the evolution of electromagnetic theory.<sup>11</sup> The acoustic guitar<sup>12</sup>, as well as the lute, have long been associated with the popular music of their time; this is perhaps due to the portability and versatility of the instruments.<sup>13</sup> According to James Day, the acoustic guitar's ability to execute western art music, parlour music and folk songs, as well as its capacity as a soloist (both unaccompanied as well as in an ensemble) and accompanist instrument have placed it in a rarefied instrumental league alongside the likes of the piano.<sup>14</sup> However, the acoustic guitar in all of its different forms has never experienced the widespread acceptance and popularity of mainstream orchestral instruments.<sup>15</sup> This could be largely due to the fact that the acoustic nylon-string guitar is significantly softer than other instruments, and due to its lack of volume and projection, is often 'drowned out' in chamber settings and fails to fill a large hall with its sound.<sup>16</sup> As the acoustic guitar's origins lay in vernacular and folkloric traditions, it acquired cultural associations which some of the art music elite do not wish to embrace.<sup>17</sup> The classical guitar struggled for widespread acceptance from the art music community during the first half of the twentieth century.<sup>18</sup> It was the tireless efforts of Andrés Segovia (1893–1987), Julian Bream (b. 1933) and John Williams (b. 1941) that raised the classical guitar's profile and presented it as a

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<sup>11</sup> The two pioneers of electromagnetic theory were Danish physicist Hans Christian Ørsted (1777–1851) and English physicist Michael Faraday (1791–1867). Ørsted is considered to be one of the first scientists to conduct extensive research in to the relationship between and electronic current and its magnetic field. Faraday invented an apparatus named the Dynamo, the first electric generator. The pickup and amplifier which are the two vital components of an electric guitar are based upon Ørsted and Faraday's discoveries.

<sup>12</sup> This refers to both gut string and steel string acoustic guitars.

<sup>13</sup> Douglas Alton Smith, *A History of the Lute from Antiquity to the Renaissance* (Lexington, V.A: The Lute Society of America, Inc 2002).

<sup>14</sup> James M. Day, "Between the Serious and the Playable: The Guitar and the Early Nineteenth-Century Lied," *Soundboard* XXXIII, no. 1-2 (2007): 35–36.

<sup>15</sup> Graham Wade, *Traditions of the Classical Guitar* (London: John Calder Publishing 1980), 8.

<sup>16</sup> *Ibid.*, 6.

<sup>17</sup> *Ibid.*, 183–85.

<sup>18</sup> Maurice J. Summerfield, *The Classical Guitar: Its Evolution and Players since 1800* (Newcastle upon Tyne: Ashley Mark Publishing Co. , 1982), 20.

legitimate, virtuosic, concert hall instrument.<sup>19</sup> Despite the controversies that surround the choice of repertoire which Segovia commissioned, there is no denying that from 1930 onwards he significantly increased the classical guitar repertory through new works and transcriptions.<sup>20</sup> He would then present this new material to varied audiences around the world on his extensive concert tours.<sup>21</sup>

After the Second World War, Bream and Williams, who were both based in London, continued Segovia's tradition of commissioning works from contemporary composers. Bream and Williams, unlike Segovia, did not maintain close ties with the Spanish nationalist school of composition. Instead, they favoured British and German composers who up until that point had contributed very little to the solo classical guitar repertory.<sup>22</sup> During the 1950s Bream wrote several journal articles for composition journals regarding how to write idiomatically for the classical guitar<sup>23</sup>. Bream is also remembered for several close collaborations with composers, most notably with Benjamin Britten in 1963 which resulted in the creation of the *Nocturnal, after John Dowland Op. 70*, a centre-piece in the instrument's repertory. Today the classical guitar is widely accepted as a legitimate concert hall instrument and most established

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<sup>19</sup> Graham Wade, *Segovia: A Celebration of the Man and His Music* (Gloucester: Alan Sutton Publishing 1983), 72–73.

<sup>20</sup> Luigi Attademo, "Segovia's Choices: Observations on Segovia and His Repertoire in Our Time," *Soundboard XXXVI*, No. 2 no. 2 (2010): 20–22. Segovia was a staunch traditionalist and Spanish nationalist. Although he did transcribe and commission new works they are largely from Spanish and South American composers who wrote in a late Spanish romantic style. His transcriptions consist of Spanish works by Albeniz and de Falla with a healthy dose of J.S. Bach. He commissioned music from composers such as Federico Moreno Torroba (1891–1982), Manuel Ponce (1882–1948), Joaquín Rodrigo (1901–1999), Federico Mompou (1893–1987) and Mario Castelnuovo Tedesco (1895–1968).

<sup>21</sup> Brian Hodel, "20th Century Music and the Guitar Part 2: 1945–2000," *Guitar Review* Winter (2000): 8.

<sup>22</sup> Julian Bream commissioned works from and collaborated with, Benjamin Britten (1913–1976), William Walton (1902–1983), Malcolm Arnold (1921–2006), Toru Takemitsu (1930–1996), Hans Werner Henze (1926–2012), Michael Tippett (1905–1998), Richard Rodney Bennett (b. 1936), Lennox Berkeley (1903–1989), Leo Brouwer (b. 1939), Reginald Smith-Brindle (1917–2003) and Peter Maxwell Davies (b. 1934).

<sup>23</sup> Julian Bream, "How to Write for the Guitar" (paper presented at the United Kingdom: Guitar Forum, 1957), 19–26.



conservatories offer degrees on the instrument.<sup>24</sup> Segovia, Bream and Williams may be the most revered classical guitarists of the twentieth century but they did not exist in isolation: there were numerous classical guitarists who followed in their footsteps such as Christopher Parkening (b. 1947) and Carlos Bonell (b. 1949). The classical guitar is an instrument that has always existed at a community-based level and since the nineteenth century has been associated with household chamber recitals and zealous amateur guitar societies, both of which have promoted the instruments wider integration into art music and conservatories. Composers including Schubert and Schumann wrote lieder with guitar accompaniment to be performed at household chamber recitals, as did Paganini with his sonatas for violin and guitar. Having heard the guitar in similar contexts in Paris, Chopin remarked, “Nothing is more beautiful than a guitar, save perhaps two.”<sup>25</sup>

Despite his triumphs regarding the repertoire and status of the classical guitar, Segovia was a major opponent to the use of electric guitar in any genre of music, stating that the instrument was “an abomination.” During the late 1960s and 1970s, much to Segovia’s disgust, John Williams began experimenting with the electric guitar in both a classical and popular context.<sup>26</sup> Segovia’s staunch resistance to the electric guitar’s incorporation in any kind of music, especially classical (art) music, is seen by Paul Fowles to have created a barrier of conservatism and traditionalism between the “philharmonic public,” and the popular music community.<sup>27</sup> The electric guitar’s status in art music has certainly changed, now it could be seen as experiencing somewhat of a ‘boom period’ which has seen a large increase in its repertoire. However, to fully

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<sup>24</sup> Antigoni Goni, "The Pre-College Guitar Program at Juilliard," *Soundboard* XXXII, no. 3–4: 46.

<sup>25</sup> Summerfield, *The Classical Guitar: Its Evolution and Players since 1800*, 14–15.

<sup>26</sup> Paul Fowles, *A Concise History of Rock Music* (Missouri: Mel Bay, 2009), 264–69.

<sup>27</sup> *Ibid.*, 264.

comprehend its current position in art music it is necessary to first analyse its' contribution to popular music as the instrument serves as the foundation of many popular music genres. Although originally denounced by Segovia and some of his anachronistic contemporaries, the influence of the electric guitar and popular music can be found in many contemporary art music compositions by composers such as Stockhausen, Berio, Henze, Crumb, Feldman, Reich, Adams, Kagel and Lentz, all of which embraced the modern technology and 'popular' musical genres of their time.<sup>28</sup>

While the electric guitar has always had critics from the mainstream classical community (as will be seen in Chapters 2 and 4 of this thesis), scepticism and disdain towards the instrument does appear to be declining. Electric guitarist and composer Steve Mackey, who has been working with the electric guitar in a contemporary art music setting for over twenty-five years, recalls his own experience of the classical purist attitude towards the electric guitar:

Guitar [electric] will always be a little bit on the fringes because of the electricity issues, because of the cultural baggage and because there are some purists. I've had a conductor, who was asked to conduct an orchestra playing my piece [featuring electric guitar] say, "I'm not going to conduct that piece in fact, I'm not going to conduct any piece by Steve Mackey because the guitar [electric] is the source of decline of western civilisation." There's always going to be that attitude. At the same time I say, yes there's going to be more and more

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<sup>28</sup> See Appendix D: Electric Guitar Repertoire list.

electric guitarists show up at mainstream things, it's always going to be at festivals [instrument featured at festivals].<sup>29</sup>

The electric guitar is losing its 'novelty' status in contemporary art music as several well established composers ranging from Karlheinz Stockhausen to Steve Reich have written works for the instrument. Contemporary art music ensembles around the world are also embracing the electric guitar.

I feel that the electric guitar is in good health, it's being performed and used within all the major ensembles within Europe. Many of the major composers and figures here [UK/Europe] are writing for it on an ongoing basis, it's in major works, it's in orchestras, it's in the opera houses. It's becoming a regular feature of musical life and I think that's what is exciting me.<sup>30</sup>

There is no shortage of literature on the history of the electric guitar in popular music or on the development of iconic electric guitar models. There is even academic literature that investigates the electric guitar's function as a gender symbol in heavy metal.<sup>31</sup> However, academic literature which specifically discusses the electric guitar's art music repertoire only emerged during the early to mid-1980s.

In 1985, *The Contemporary Guitar*<sup>32</sup> was written by the guitarist, composer and musicologist, John Schneider. This book is a very useful technical manual on how to write for the both the classical and electric guitars in an art music setting. The book focuses mainly on writing for the classical guitar but there is a whole chapter dedicated

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<sup>29</sup> Personal correspondence with Steve Mackey on 2/8/11.

<sup>30</sup> Personal correspondence with Daryl Buckley on 30/8/11.

<sup>31</sup> Robert Walser, *Running with the Devil: Power, Gender and Madness in Heavy Metal Music* (Hanover, N.E: University of New England Press 1993).

<sup>32</sup> John Schneider, *The Contemporary Guitar* (Berkeley: University of California Press, 1985).

to the electric guitar which composers may find particularly interesting. This chapter is mainly concerned with the components of the electric guitar (body types, string types, pickup models, amplifiers), the sonic properties of these components and Schneider scientifically explains how certain idiomatic electric guitar sounds are created. Some of the sonic properties discussed in this chapter are feedback, effect of the Ebow, the prefix (twang of the string at the beginning of each pluck), spectral envelope, subtractive transformation, additive transformation, amplitude modulation, changes in spectral envelope and fundamental frequencies, reverb and echo as well as phasing and flanging. Schneider delves into great technical detail when explaining these sonic properties and there are numerous graphs which illustrate the physics of what happens when a particular part of the electric guitar/amplifier is employed.

Section III of *The Contemporary Guitar* is entitled 'The Music' and features chapters on timbre and notation, pitched sounds, unpitched sounds and electronics. Although the electric guitar is again not the focus of this part of the book, there is some useful advice regarding things to keep in mind when writing for the electric guitar such as plucking position verses pickup selection, glissandi/string bends and playing the electric guitar with found objects such as a jam jar. The book is abundant with score extracts to explicitly demonstrate how composers have successfully written for the guitar (acoustic and electric) in the past. Some of the electric guitar compositions featured are George Crumb's *Song Drones and Refrains of Death* (1968), David Bedford's *Eighteen Bricks Left on April 21* (1967) and Mauricio Kagel's *Sonant* (1960). The information contained within *The Contemporary Guitar* is still valid; however, since 1985 the electric guitar has witnessed a number of changes concerning its repertoire, performance techniques and equipment. Furthermore, a great number of art

music compositions have been written for the electric guitar since 1985 and several popular music genres have since developed around the instrument (such as grunge and other subgenres of heavy metal). In both popular music and art music, the electric guitar can achieve sounds, through new technology and new performance techniques, which the instrument was not able to produce when Schneider wrote his book. *The Contemporary Guitar* also does not address how the electric guitar came to be included in art music nor does it give as much detail regarding how to write for the instrument as it did in the chapter concerning the instrument's components and sonic properties.

Robert Tomaro's 1993 dissertation, *Contemporary Compositional Techniques for the Electric Guitar in United States Concert Music*, is the first Ph.D. dissertation that I was able to find which is solely dedicated to the electric guitar's role in art music, albeit only in American concert music. Tomaro analyses five compositions written between 1960 and 1984 which feature electric guitar: Donald Erb's *String Trio* (1960), Francis Thorne's *Sonar Plexus* (1968), George Crumb's *Songs, Drones and Refrains of Death* (1968), Jeffrey Lohn's *Dirge* (1983) and Elliot Sharp's *Vicious Cycle* (1984). Each work is analysed in a separate chapter and addresses different notational and articulation techniques, compositional process, motivic material and use of rhythm. Tomaro also examines the electric guitar as a cultural symbol and prophesies that the instrument is the sound of the future: "It [electric guitar] provides the composer with a potent symbol for the clash between the culture of the present and the aesthetics of the past, as a well as a voice to express his vision of the sound of the future."<sup>33</sup> Tomaro's dissertation is still useful for anyone wishing to learn about the five works featured in his thesis or looking for a general background to the electric guitar. It also provides a

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<sup>33</sup> Robert John Tomaro, "Contemporary Compositional Techniques for the Electric Guitar in United States Concert Music" (New York University, 1993), xx.

notational chart explaining some of the most common electric guitar techniques in use in 1993. However, it does not address the role of the electric guitar in contemporary art music written by composers outside the USA and is now old research as it does not address more recent developments and trends the instrument has experienced in art music, or its use by contemporary music ensembles.

In 2006, Sara Overholt, an American musicologist and music theorist, submitted a Ph.D. thesis entitled, *Karlheinz Stockhausen's Spatial Theories: Analyses of "Gruppen für drei Orchester," and "Oktophonie," "Elektronische Musik vom Dienstag aus LICHT"* in which a chapter is dedicated to Stockhausen's use of the electric guitar in *Gruppen* (1955–57). *Gruppen* is commonly mistaken as the first piece of art music to feature the electric guitar. Despite the piece being one of Stockhausen's major orchestral works, his treatment of the electric guitar in *Gruppen* is not often given a great deal of attention. Stockhausen never wrote about why he decided to include the instrument in *Gruppen*, and unfortunately Overholt did not interview him about this. However, in the first half of the relevant chapter, Overholt proposes several theories as to why Stockhausen decided to include the electric guitar in *Gruppen*. The main point made by Overholt is that the electric guitar part for *Gruppen* is rather idiomatic despite Stockhausen being a pianist who is not known to have collaborated with a guitarist—consequently, according to Overholt, “In 1957, before he had turned thirty-years old, Stockhausen had already proven himself worthy as a guitar composer.”<sup>34</sup>

Overholt's thesis as a whole is fascinating, especially her analysis of Stockhausen's pitch organisation in *Gruppen* and her chapters on Stockhausen's

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<sup>34</sup> Sara Ann Overholt, "Karlheinz Stockhausen's Spatial Theories: Analyses of Gruppen Für Drei Orchester, and Oktophonie, Elektronische Musik Vom Dienstag Aus Licht " (University of California, Santa Barbara, 2006), 133.

‘Theory of Shapes’ and ‘Magic Spots’. Her chapter entitled ‘The Electric Guitar Part for *Gruppen*’ has some interesting observations about how Stockhausen integrated the electric guitar into the fabric of the three orchestras. While analysis of many of the compositional elements of *Gruppen* is doubtless beneficial to many, the limited treatment of the role of the electric guitar including the use of the electric guitar in this piece again highlights the need for an academic document which explores the European, American and Australasian classical-electric guitar repertoire both pre- and post-*Gruppen*.

For all the contributions that Tomaro and Overholt have made to the field, there is, unfortunately, still a scarce amount of academic literature concerning the role and function of the electric guitar in contemporary art music. This lack of literature may impact on the instrument’s future progress in contemporary art music as composers may be intimidated and discouraged at the prospect of composing for the electric guitar if there are only few academic sources to which they can refer as a guide to help them through the compositional process.

The aim of this dissertation is to highlight both composers’ and electric guitarists’ compositional, collaborative and performative experiences with the electric guitar as well as provide an insight into their attitudes and perceptions which relate to the instrument’s role in art music. In doing so, this is an attempt to provide future composers who may be interested in writing for the instrument with practical information about the instrument’s origins, its culture and its idiosyncrasies. The nature and philosophy of present day musical collaborations with their use of modern technology and its mediation of the aural experience will also be discussed in order to inform composers and performers of their options when beginning a collaborative

partnership. This dissertation will culminate in a detailed, firsthand account of a successful composer-electric guitarist collaboration so that future composers<sup>35</sup>, who may be out of their comfort zones when considering writing for the instrument, can use this model to assist them in their artistic endeavours.

This dissertation is divided into three sections. The first, Section A, is an introduction to the electric guitar, with a focus on its history and role in both western popular music and western art music. This section consists of Chapters 2 and 3 and addresses the following topic areas: the development of the electric guitar, the electric guitar in American popular music and the development of art music repertoire featuring the electric guitar.

Section B contains one chapter, Chapter 4. Due to a lack of academic literature regarding the electric guitar's role in art music, it became obvious that I would need to conduct extensive fieldwork in the format of interviews in order to obtain all necessary data to support the final section of the thesis. Chapter 4 includes the analysis of forty-eight interviews given by musicians involved in composition, performance and musicology for the electric guitar. The focus of this chapter is on the interviewees' experiences with and common views, perceptions and attitudes towards, the electric guitar's role in art music. This chapter also contains common recommendations made by the interviewees regarding how to successfully write for the instrument, plus it addresses the nature of previous collaborative partnerships between composers and electric guitarists.

The final section, Section C, is partly an auto-ethnography. Chapters 5 and 6 address and extend several of the collaborative issues raised in Chapter 4, including the

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<sup>35</sup> The term 'composer' in this context refers to composers who have never written for the electric guitar but are interested in writing a work for the instrument.



proposition of useful collaborative models. This section also features an in-depth discussion of how technological mediation can affect the collaborative process as well as proposing performance and recording logistics that composers should keep in mind when composing for the electric guitar. Included in the 'Creative Work' portfolio of this dissertation is a mp4 recording (on a USB) of my performance of Georges Lentz's unaccompanied electric guitar composition *Ingwe* at the 2012 Amsterdam Guitar Heaven Festival; Naxos CD recording of *Ingwe*. Appendix D to this dissertation contains an extensive list of art music repertoire written for the electric guitar.

## 2 Section A - Chapter 2: The Evolution of the Electric Guitar

### 2.1 The Development of Electric Guitar Technique: Popular Music Styles and Traditions

In order to understand how the electric guitar has been used to date in art music I would like to introduce some major figures and electric guitar models which have been integral to the development of electric guitar technique. The major developers of technique in this area have been from the non-art music context – both individual players and their performance techniques, and the instrumental innovations. These technical and instrumental innovations have shaped the harmonic and sonic vocabulary of the electric guitar and are used by contemporary art music composers. In his book, *The Fender Telecaster: The Life & Times of the Electric Guitar that Changed the World*, Dave Hunter writes regarding the development of the electric guitar, “the evolution of the product [electric guitar] – directly influenced the art [popular music] itself, and, therefore, the national and international culture.”<sup>36</sup>

There are few musicians in the popular music domain who have been as important as Robert Johnson (1911-1938).<sup>37</sup> His influence on subsequent artists has been both direct and indirect, and is evident in most forms of western popular music. Johnson’s style of performance began a tradition which has been passed down through successive generations of guitarist and songwriters such as Muddy Waters, (1913–1983), Elmore James (1918–1963), Howlin’ Wolf (1910–1976), Eric Clapton (b. 1945), Mick Jagger

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<sup>36</sup> Dave Hunter, *Fender Telecaster: The Life & Times of the Electric Guitar That Changed the World* (Minneapolis: Voyager Press, 2012), 19.

<sup>37</sup> Barry. Lee Pearson, McCulloch, Bill, *Robert Johnson: Lost and Found* (Chicago: University of Chicago Press 2003), 2.

(b. 1943), Keith Richards (b. 1943), Jimi Hendrix (1942–1970), Robert Plant (b. 1948) and Jimmy Page (b. 1944). Blues historian Stephen C. LaVere has written, “Robert Johnson is the most influential bluesman of all time and the person most responsible for the shape popular music has taken in the last five decades.”<sup>38</sup> From 1930–1938 Johnson was to become the most accomplished and versatile country blues guitar player to emerge from the delta.<sup>39</sup> He toured to Chicago, New York and Canada and created a great deal of controversy, hype and mystery.<sup>40</sup> As Johnson was considered so ‘avant-garde’ for his time and place, it was even suggested that he was assisted by some supernatural force, in the manner of violinist Paganini a century earlier.<sup>41</sup> Until Johnson, most of the delta blues guitarists utilised a primitive strumming technique, perfect for rhythmic block chord passages. Johnson was perhaps the first to develop a highly articulated picking style closer to country and bluegrass guitar techniques than delta blues (a reflection of Johnson’s eclectic musical tastes: see Figure 1).<sup>42</sup>

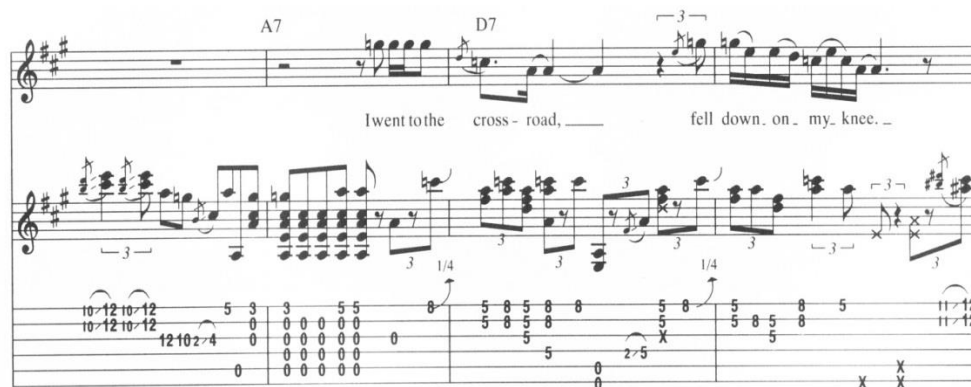


Figure 1: **Cross Roads Blues, bars 9-12. Intricate country influenced picking style.**<sup>43</sup>

<sup>38</sup> Ibid., 7.

<sup>39</sup> Elijah Wald, *Escaping the Delta* (New York: Harper Collins 2004), xv.

<sup>40</sup> Patricia R. Schroeder, *Robert Johnson: Mythmaking and Contemporary American Culture* (Urbana: University of Illinois Press, 2004), 2–3.

<sup>41</sup> Wald, *Escaping the Delta*, 267–69.

<sup>42</sup> Martin Scorsese, "Feel Like Going Home," (Los Angeles, CA. USA: Madman Entertainment, 2003).

<sup>43</sup> Scott Ainslie and Dave Whitehill, "Robert Johnson: At the Crossroads," *The Authoritative Guitar Transcriptions* (Milwaukee) (1992): 5.

Johnson's most renowned composition, *Cross Roads Blues* was one of the first recordings to feature highly intricate bottleneck slide playing (see Figure 1).<sup>44</sup> He often used 'open tunings' (*scordatura*) while playing as this allowed him to tune all the open strings of the guitar to a tonic chord. This creates more options regarding bass notes and aided him while playing bottleneck slide. On *Cross Roads Blues* Johnson's guitar is tuned to an open G major chord (he is also using a capo which raises the pitch a tone, to A major).<sup>45</sup> These techniques have since been used many times in western popular music and subsequently in art music featuring the electric guitar. Johnson raised the standard of blues guitar playing, ushering in a new level of blues guitar technique.

## 2.2 The Development of Amplification.

Amplification is most obviously a defining characteristic of the electric guitar - this innovation had a dramatic impact on the course popular music. Amplifying the guitar was born out of necessity<sup>46</sup> and much inspiration for amplifying conventional electric guitars came from Hawaiian lap-steel (electric) guitar amplification technology, Hunter writes regarding the development of amplification for the Hawaiian lap-steel (electric) guitar:

Evolving from a Hawaiian music craze that spread like wild fire in the 1920s and early '30s to the burgeoning Western Swing and country scenes that ignited in the late '30s and through the '40s, the lap steel guitar, played with a solid steel bar, or slide, was really the most popular "electric guitar" of the era. Part of its prominence can be attributed not merely to the music that it suited so well

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<sup>44</sup> Wald, *Escaping the Delta*, 155–56.

<sup>45</sup> Capo: A device used to raise the pitch of the guitar. It is clamped on to the fret and creates an artificial 'nut' allowing the guitarist to change keys easily and maintain the use of 'open-string' chord voicings.

<sup>46</sup> Schneider, *The Contemporary Guitar*, 48.

(and helped to inspire), but also to the fact that it was more efficient as a lead instrument, and therefore more capable of putting “guitarists,” in the broad sense, in the spotlight. Players of what we now call “conventional” guitars had been seeking the same sonic advantages for two decades by the mid ’40s.<sup>47</sup>

### 2.3 Early Electric Guitar Prototypes

It became evident that there was money to be made out of developing and mass-producing an amplified guitar. This led to many luthiers and electronic enthusiasts experimenting with amplifying the acoustic guitar.<sup>48</sup> In 1890, U.S. Naval Officer and hobbyist inventor, George Breed, patented ‘the apparatus for producing musical sounds by electricity’.<sup>49</sup> This invention appears to be the first foray into the concept of using electromagnetic theory to amplify a vibrating string. Although not invented explicitly as a guitar pickup, Breed demonstrated that his invention could also be applied to the guitar or piano. In the book *Guitars*, Bonds writes:

Breed’s cumbersome and impractical guitar can have had little appeal to players, who would have been obliged to adapt their technique to master it, as no picking or strumming was possible. However, his instrument appears to be the first documented example of a guitar using electromagnetism, and some of its features – especially the ‘wrap-around’ design for the string magnet – seem to anticipate the work of later pioneers.<sup>50</sup>

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<sup>47</sup> Hunter, *Fender Telecaster: The Life & Times of the Electric Guitar That Changed the World*, 19.

<sup>48</sup> Donald Brosnac, *Electric Guitar: Its History and Construction* (San Francisco: Panjandrum 1978), 9–11.

<sup>49</sup> George Breed, "Method of and Apparatus for Producing for Producing Musical Sounds by Electricity," <http://www.google.com/patents/US435679>. Accessed on 22/5/13.

<sup>50</sup> Ray Bonds, *Guitars* (London: Salamander Books Limited 2001), 254.

In 1923, Gibson Guitars employee, Lloyd Loar (1886–1943) invented what is now considered to be the forerunner to the modern day pickup. This invention was related to Breed's earlier discoveries but was a great deal more practical.<sup>51</sup> Loar's invention consisted of:

Two diaphragms with charged particles that were separated by insulation material. The diaphragms were copper discs about the size of a half dollar. An electric current was induced in these discs and leads were taken off with a capacitor in series to the grid of the amp used. This assembly had a very high impedance, about 1 meg Ohm. The unit was encased in Bakelite, but it was never possible to seal against humidity, making it noisy and less sensitive.<sup>52</sup>



Figure 2: **1931 Rickenbacker A-22 'Frying Pan', a Hawaiian model solid body electric guitar.**<sup>53</sup>

It is interesting to note that the first electric guitar models produced were designed for the electric Hawaiian guitar market and were somewhat more basic in

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<sup>51</sup> Tom Evans and Mary Anne Evans, *Guitars: Music, History, Construction, and Players from the Renaissance to Rock* (Facts On File, 1982), 338.

<sup>52</sup> Brosnac, *Electric Guitar: Its History and Construction*, 9.

<sup>53</sup> "Rickenbacker a-22 Frying Pan Guitar," [campur-max.co.cc](http://campur-max.co.cc) Accessed on 8/2/11

design than the Spanish ‘archtop’ guitars which would soon follow.<sup>54</sup> The first Spanish ‘archtop’ electric guitar to experience widespread commercial success was the Gibson ES-150 (see Figure 3) manufactured in 1936 and marketed as a jazz guitar. This model was used by Charlie Christian (1916–1942) who is regarded as one of the pioneers of bebop and as the father of the modern electric jazz guitar.<sup>55</sup> Esteemed jazz guitarist, Barney Kessel once remarked about Christian’s musical legacy, “Charlie Christian’s contributions to the electric guitar are as big as Thomas Edison’s contributions to the world.”<sup>56</sup> It is perhaps for this reason that the Gibson ES-150 triumphed over its competitors.<sup>57</sup>



Figure 3: **Gibson ES-150 ‘Arch-top, semi-acoustic electric guitar.**<sup>58</sup>

Christian is considered to be the first electric guitarist to use almost exclusively single note melodies when improvising. Up until the late 1930s there had been little point in jazz guitarists contemplating taking a solo as scarcely anyone in the audience or

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<sup>54</sup> Bonds, *Guitars*, 258–59.

<sup>55</sup> Darrin Fox, "The Magic Christian," *Guitar Player* 2002, 50.

<sup>56</sup> *Ibid.*, 75–76.

<sup>57</sup> Paul Trynka, *The Electric Guitar: An Illustrate History* (San Francisco: Chronicle Books 1993), 15.

<sup>58</sup> Accessed from website gitarspele.Iv on (10/5/13).

band would have heard them.<sup>59</sup> I believe that Christian's breakthrough in technique, assisted by the crude amplification technology of the time, may have planted the seed in art music composers' minds that the electric guitar was more than just a simple rhythmic folk instrument – it was in fact capable of playing intricate melodic passages and therefore of potential use to them. As the instrument facilitated this monumental breakthrough in technique it began to play a more prominent soloistic role in jazz rather than just 'comping' chords. Christian was now defining what it meant to play the electric guitar; he once stated, "Guitar players have long needed a champion. Someone to explain to the world that a guitarist is more than just a robot plunking on a gadget to keep the rhythm going."<sup>60</sup>

## **2.4 Solid Body 'Spanish' Electric Guitars**

By 1945, the electric guitar had been in mass production for several years, although as the production of electric guitars was viewed as a 'non-essential goods' numbers manufactured between 1939 – 1945 were limited.<sup>61</sup> Despite the instruments' mass production, there was however, still a limit to how loud one could play without inducing feedback. Les Paul developed his own prototype of the solid body electric guitar in 1941, which he named, 'The Log'. By not having the acoustic properties of a standard acoustic guitar, 'the Log' was less susceptible to feedback and had much greater sustain than other semi-acoustic electrics available at the time.<sup>62</sup> Although Les Paul had made a

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<sup>59</sup> Trynka, *The Electric Guitar: An Illustrate History*, 12.

<sup>60</sup> Fox, "The Magic Christian," 75–76.

<sup>61</sup> Bonds, *Guitars*, 271.

<sup>62</sup> Nick Freeth and Charles Alexander, *The Guitar* (Salamander, 2002), 180–81.



significant breakthrough in electric guitar design, “he was unable to persuade anyone to manufacture it [‘The Log’] commercially.”<sup>63</sup>

In 1950, Californian radio repairman and inventor, Leo Fender (1909 – 1991) invented a solid body electric guitar named The Broadcaster (later renamed Telecaster). The Broadcaster was simple in its design as Fender’s main aim was to manufacture a ‘blue-collar’, solid body electric guitar that would be multi-functional, reasonably priced and easy to assemble.<sup>64</sup>



Figure 4: **Fender Broadcaster (1950), renamed the Telecaster in 1953.**<sup>65</sup>

In 1948, the Gibson guitar company appointed Ted McCarty as its new general manager. Although Gibson had long been associated with old world craftsmanship, McCarty realised the need for Gibson to begin manufacturing solid body electric guitars in order to remain competitive. Bond writes, “McCarty was to preside over Gibson’s ‘golden years’ of modernisation and expansion – as well as supervising the introduction of its most famous solid body model, the Les Paul, in 1952.”<sup>66</sup>

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<sup>63</sup> Bonds, *Guitars*, 292.

<sup>64</sup> Hunter, *Fender Telecaster: The Life & Times of the Electric Guitar That Changed the World*, 10.

<sup>65</sup> Fender Instruments, "Fender Broadcaster," [www.vintageguitar.dreamhosters.com](http://www.vintageguitar.dreamhosters.com) Accessed on 22/2/11.

<sup>66</sup> Bonds, *Guitars*, 271.



Figure 5: **Gibson Les Paul with Humbucker pickups.**<sup>67</sup>

In 1954 the Fender Stratocaster model was manufactured to be a competitor to the Gibson Les Paul<sup>68</sup>, and the Stratocaster has since become one of the most enduring and ubiquitous solid body, Spanish electric guitar models ever produced.<sup>69</sup> In his book, *The Story of the Fender Stratocaster*, Bob Minhinnett wrote:

Leo Fender's Stratocaster is far more than just an electric guitar. The standard cliché would be to say that it is an icon, but it is much more than that. Whereas icons, such as Levi jeans or Wurlitzer jukeboxes reflect or evoke history, the Stratocaster made history. Without the Strat as it is affectionately termed, it is doubtful whether Buddy Holly, Jimi Hendrix, Eric Clapton and a host of influential blues and country musicians would have been able to articulate the sounds they heard in their heads, and rock music would consequently have sounded very different.<sup>70</sup>

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<sup>67</sup> Gibson Guitars, "Gibson Les Paul," website: [www. zzounds.com](http://www.zzounds.com) Accessed on 22/2/11.

<sup>68</sup> Minhinnett and Young, *The Story of the Fender Stratocaster*, 21.

<sup>69</sup> Freeth and Alexander, *The Guitar*, 176.

<sup>70</sup> Minhinnett and Young, *The Story of the Fender Stratocaster*, 6.



Figure 6: **Fender Stratocaster with single coil pickups.**<sup>71</sup>

## **The Electric Guitar in Popular Music from 1950**

By the 1950s, the electric guitar had become common in both jazz and country styles of music and its popularity was ever increasing.<sup>72</sup> It was also at this time when the instrument began acquiring its own virtuosi such as Chet Atkins (1924–2001), Muddy Waters, Barney Kessel (1923–2004) and Scotty Moore (b. 1931). These players were exploiting the instrument's true potential and promoting it as a legitimate instrument that could shape the direction of popular music.<sup>73</sup> There are several electric guitarists who require mentioning in this chapter. These players have been responsible for major technical and stylistic developments on the instruments which have since influenced guitarists and bands as well as art music composers who have written for the instrument.

Elvis Presley's (1935–1977) name is synonymous with 1950s rock n' roll. He became the first 'rock star', sex symbol, teen idol and marketable musical brand. As Leonard Bernstein remarked, "Elvis is the great cultural force of the Twentieth Century. He introduced the beat to everything, music, language, clothes, it's a whole new social

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<sup>71</sup> Fender Instruments, "Fender Stratocaster," [www.mstreetmusic.com](http://www.mstreetmusic.com) Accessed on 22/2/11.

<sup>72</sup> Steve Waksman, *Instruments of Desire: The Electric Guitar and the Shaping of Musical Experience* (Cambridge, Massachusetts: Harvard University Press, 1999), 82–85.

<sup>73</sup> Sandra B. Tooze, *Muddy Waters: The Mojo Man* (Toronto: ECW Press 1997), 56.

revolution.”<sup>74</sup> Scotty Moore (b. 1931) and Sam Phillips (1923–2003, owner of Sun Records), were to be the ones who would shape Presley’s unique sound.<sup>75</sup>

Moore was an early pioneer of a ‘wild’ electric guitar sound called ‘slap-back’ delay, which by today’s standards seems tame, but which is one of the earliest examples of electric guitar effects.<sup>76</sup> Moore laid down the foundations for rock guitar by fusing ‘hillbilly’ music guitar techniques with country blues ‘licks’ and harmonies, and in doing so, sparked a musical revolution which would ultimately redefine popular culture.<sup>77</sup> Moore’s early guitar influences came from guitarists Chet Atkins and Les Paul which is not surprising seeing as these two guitarists were the most popular players in the late 1940s and early 1950s.<sup>78</sup> Moore’s fingerstyle technique was based on that of Atkins and as a result Moore did not use a plectrum, instead using a thumbpick. This enabled him the arpeggiate chords, execute double stops with ease as well as well as play bass lines (tonic-dominant) while playing chords.

From the mid-1960s onwards, most major stylistic and technical developments concerning the electric guitar and its role in popular music can be linked to the emergence of particular electric guitar innovators. One of the main innovators of the middle to late 1960s was Eric Clapton. While Clapton is still an active performer and recording artist, his recordings from 1966–1972 are regarded as critical in the evolution of rock and blues electric guitar technique. One album in particular is commonly cited as the inspiration for many subsequent electric guitarists, *Bluesbreakers with Eric*

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<sup>74</sup> Mike Evans, *Elvis: A Celebration* (London: DK Publishers 2002). Prologue

<sup>75</sup> Keith Wyatt, "Scotty Moore: The Man Who Made It Possible for Elvis to Rock," *Guitar World* 2000, 92.

<sup>76</sup> Elvis Presley, *The Sun Sessions Cd*, vol. PD-864 14, (Europe: RCA Victor, 1987).

<sup>77</sup> Ibid.

<sup>78</sup> Deke Dickerson, "Scotty Moore ", *Guitar Player*(2009), <http://www.guitarplayer.com/article/scotty-moore/8027>. Accessed on 8/1/13

*Clapton* (1966).<sup>79</sup> Electric guitar virtuoso, Eddie Van Halen once stated, “My biggest influence was Eric Clapton when he was with Cream and John Mayall’s Blues Breakers.”<sup>80</sup> On this recording Clapton had taken the distinctive, Chicago Blues sound of Muddy Waters, Buddy Guy (b. 1936) and Howlin’ Wolf while pioneering a now-integral rock guitar tone: a Gibson Les Paul electric guitar (featuring humbucker pickups) played through a Marshall Amplifier with overdrive.<sup>81</sup> This has now become one of the main timbres associated with the instrument and it is a timbre that can be heard in the art music works of Georges Lentz<sup>82</sup> (b. 1965) and David Bedford (1937–2011).

Arguably the most iconic electric guitarist and the person most responsible for significant stylistic and technical developments on the instrument in the late 1960s was Jimi Hendrix (1942–1970).<sup>83</sup> Hendrix was renowned for his digital dexterity which facilitated his supreme technical command of the instrument as well as his highly creative sonic and technical imagination.<sup>84</sup> Hendrix’s image is synonymous with the sound and presence of both the Fender Stratocaster and Marshall Amplifier.<sup>85</sup> He was an early pioneer of a ‘tuning’ trend that is still used today, mainly by rock and heavy metal bands.<sup>86</sup> This involves detuning the whole guitar down one semitone, this achieves a rich bluesy sound and assists the player when bending notes more than a

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<sup>79</sup> John Mayall, "Bluesbreakers with Eric Clapton," (Decca, 1966).

<sup>80</sup> Eddie Van Halen, "Eddie Van Halen Wants You: My Tips for Beginners," *Guitar Player* 1984, 53.

<sup>81</sup> Eric Clapton, *Eric Clapton: The Autobiography* (London: Century, 2007), 60.

<sup>82</sup> The sister guitar to the Gibson Les Paul is the Gibson S.G. which although aesthetically different, has a very similar sound due to the fact that both guitars featured humbucker pickups. Lentz’s was drawn to the classic sound of a Gibson Les Paul/S.G. played through a Marshall amplifier.

<sup>83</sup> Alan Di Perna, "Wild Thing," *Guitar World* 2000, 60.

<sup>84</sup> Waksman, *Instruments of Desire: The Electric Guitar and the Shaping of Musical Experience*, 182–83.

<sup>85</sup> Minhinnett and Young, *The Story of the Fender Stratocaster*, 71–73.

<sup>86</sup> Jimi Hendrix, "The Jimi Hendrix Experience: Are You Experienced?," (Polydor, 1967).

tone. Pete Townsend, guitarist for the rock group, The Who, remarked regarding Hendrix's uniquely eclectic sound:

One reason why he (Hendrix) seems the quintessential rock icon to many fans is that his work incorporated nearly all the major stylistic elements that went into the making of rock music during the classic Fifties and Sixties period. Hendrix had first-hand involvement in R&B, blues folk and post-British invasion English rock. His ears took it all in. And while he appropriated plenty from his contemporaries, he also brought his own arrestingly original tone and melodic sensibility to what he'd learned from those influences.<sup>87</sup>

As the late 1960s psychedelic rock style began to fade, a new, more provocative style began to emerge: heavy metal.<sup>88</sup> An important electric guitar virtuoso to have a cataclysmic, 'Hendrix-esque' effect on popular music is Eddie Van Halen (b 1957). The release of rock group Van Halen's self-titled LP (1978), redefined the technical capabilities of the electric guitar, in addition to the role of an electric guitarist in a rock group.<sup>89</sup> Van Halen ushered in a new age of fretboard gymnastics.<sup>90</sup> The most notable guitar playing on the recording can be found on the track titled, *Eruption* which is one of the most influential, 1'42" of improvised, unaccompanied rock guitar ever recorded.<sup>91</sup> This short improvisation contains a multitude of extended techniques which were ground breaking at the time;<sup>92</sup> these techniques include two handed fret tapping, pinch harmonics, extreme whammy bar dives (made possible with the newly invented

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<sup>87</sup> Di Perna, "Wild Thing," 62.

<sup>88</sup> Walser, *Running with the Devil: Power, Gender and Madness in Heavy Metal Music*, 7–8.

<sup>89</sup> Van Halen, "Van Halen " (Warner Bros. Records, 1978).

<sup>90</sup> Walser, *Running with the Devil: Power, Gender and Madness in Heavy Metal Music*, 67–68.

<sup>91</sup> Slash and Anthony Bozza, *Slash* (London: Harper Collins Publishers, 2007), 65.

<sup>92</sup> James Rotondi, "An Audience with Edward. Guitar Player " *Guitar Player* 1993, 44.

Floyd Rose Locking Tremolo System), tremolo picking, using the tremolo bar as a phrasing tool, pick scrapes and 'fluttering' legato passages.<sup>93</sup> Some of these techniques had been used before by performers such as Hendrix, but Van Halen created a new rock vocabulary called shred.<sup>94</sup> Shred refers to a style of guitar playing as well as a sub-genre of heavy metal and the term also has cultural implications as it also refers to the sub culture associated with the genre and playing style. Shred guitar is synonymous with fast picked or slurred scale passages, sweep picked arpeggios, fret tapping, distortion, pick scrapes, pinch harmonics, tremolo picking and extreme use of the whammy bar. *Eruption* follows a long tradition of unaccompanied guitar 'cadenzas' which had become a feature of 1970s stadium rock concerts, in which lead guitarists would indulge in displaying their speed, dazzling licks, stage antics and command of effects pedals to the audience, in a typically drawn-out, bravado ritual, bursting with bombastic histrionics.<sup>95</sup> Popular music from the 1980s and early 1990s contained a very high calibre of virtuosic rock guitar showmanship, many rock and even 'grunge' acts of the time such as Guns N' Roses, Mötley Crüe, Def Leppard, Poison, Pearl Jam, Soundgarden and Alice In Chains, had a lead guitarist who featured prominently in many songs. *Eruption* is guilty of some of these characteristics, but certainly not in its length and its musical legacy is its redeeming factor; a large number of composers writing for the electric guitar had heard such shredding techniques, and consciously used them in their own electric guitar writing.

Rock critic James Rotondi summed up Van Halen's legacy perfectly when he wrote:

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<sup>93</sup> Refer to Appendix...for a notational chart of standard and extended performance techniques.

<sup>94</sup> Halen, "Van Halen".

<sup>95</sup> Walser, *Running with the Devil: Power, Gender and Madness in Heavy Metal Music*, 81. Perhaps the first extended unaccompanied improvisation for electric guitar done before a large audience was Jimi Hendrix Woodstock improvisation based on *Star Spangled Banner*.

Whether one mimics Eddie [Van Halen] outright, blends his influence with others, or ignores him altogether, there is no denying the length of the man's musical shadow. He not only redefined electric guitar technique, but he immeasurable changed the sound, structure and style of the instrument itself ... Eddie has become to the '80s and '90s what Clapton and Hendrix were to the '60s and '70s.<sup>96</sup>

These guitarists (Hendrix, Clapton et al) have not only had a profound effect on popular music and electric guitar technique but have also influenced numerous contemporary art music composers, who have in turn, been inspired to incorporate the instrument into their compositions.<sup>97</sup> Although the electric guitar is an integral part of the soundtrack to western life and its associated imagery is ubiquitous, especially in the wake of the 'Guitar Hero' video game,<sup>98</sup> there is very little literature on how the instrument came to have been incorporated into the art music of the 1950s as well as a lack of literature which documented the electric guitar's growing art music repertoire over the second half of the twentieth century – this topic is the focus of Chapter 3.

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<sup>96</sup> Rotondi, "An Audience with Edward. Guitar Player " 44.

<sup>97</sup> Refer to Chapter 4.7.1. Influential Popular artists. Numerous composers who were interviewed cite Hendrix et al as influential.

<sup>98</sup> Mike Snider, "Bands' Sales Are Feeling the 'Guitar Hero' Effect," *USA Today*(2008), [http://www.usatoday.com/tech/gaming/2008-02-14-guitar-hero-effect\\_N.htm](http://www.usatoday.com/tech/gaming/2008-02-14-guitar-hero-effect_N.htm).



### 3 Chapter 3: The Emergence of the Electric Guitar in Art Music

What's fantastic about those little solo passages in *Gruppen*, even today, is that they are plain – no effects whatsoever, just a straight electric guitar, incredible music and therefore in many respects, the best models for composers are ones [compositions] which don't show every bag of tricks<sup>99</sup>– Richard Toop

The electric guitar was inaugurated into contemporary art music in Venice, 1950. The instrument was scored as an addition to the chamber orchestra in Bruno Maderna's (1923–1973) twenty minute composition, *Studi per 'Processo' di Kafka*. Although the electric guitar's individual part in Maderna's composition is not groundbreaking, the mere fact that the instrument had been employed in a 'serious' music context marked a new chapter in the development of contemporary art music; that is, the incorporation of electric instruments. In the sixty-two years since Maderna penned *Studi per 'Processo' di Kafka* there is approximately 4,670 art music compositions which include the instrument.<sup>100</sup>

As part of the research into this thesis, I have uncovered twenty-eight art music compositions featuring the electric guitar that were written between 1950–1959. It is likely that other compositions do exist, however the twenty-eight works that are included here were accessible through public domain services such as library

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<sup>99</sup> Personal correspondence with Richard Toop, 23/2/11.

<sup>100</sup> Klauss Heim and Seth Josel, "Sheerpluck: Database of Contemporary Guitar Music," (2011). This figure is approximate: it refers to all compositions which are in the public domain. Sheerpluck.de has catalogued 5,025 classical-electric guitar compositions written between 1950–2013 (accessed on 5/6/13). I have catalogued 634 classical-electric guitar compositions written between 1950–2013. I began cataloguing before I was aware of the Sheerpluck.de database, as a result, the two databases share a large amount of repertoire. Refer to Appendix D for my electric guitar repertoire list

catalogues, online databases and publishing houses. It is notable that only three of these compositions were written in the USA, the birthplace of the electric guitar. On closer inspection of these twenty-eight works, it becomes evident that the bulk of them were written by composers who were residing in Western Europe including Allied-occupied Germany in the years after World War II.

It was this emergence of repertoire in Europe that led me to ponder the influence of American culture and technology in Europe and Britain from the 1920s to 1959, as well as the impact of the dominant cultural and social presence of American and British armed and occupational forces in Europe from 1941–1959. In the context of this chapter, the name Germany will refer to West Germany unless otherwise stated. The focus of this chapter is on the development of the electric guitar in Euro-American, post-war art music and the role that US occupational forces played in introducing the instrument to Europe. It should also be noted that although Japan was under American occupation from 1945–1952, it is not of much relevance to this chapter as only one Japanese composer, Toshiro Mayuzumi (1929–1997) wrote for the electric guitar in an art music context. It is likely that Mayuzumi came into contact with the electric guitar through his time studying in Paris during the early 1950s.

**Table 2: Table outlining the countries in which the composers who wrote for the electric guitar between 1950–1959 were residing.**

<b>Country</b>	<b>Germany</b>	<b>Italy</b>	<b>Denmark</b>	<b>Sweden</b>	<b>Brazil</b>	<b>USA</b>	<b>Austria</b>	<b>France</b>	<b>Japan</b>
<b>No. of compositions</b>	6	5	4	4	3	3	1	1	1

I was unable to uncover any literature detailing the electric guitar's initial inclusion into art music between 1950–1959. Unfortunately the majority of the composers who composed these works passed away before preliminary research for this dissertation was undertaken. It is fortunate, however, that much research has been conducted regarding the Americanization of European culture from the 1920s till the fall of the Berlin Wall (1989). Although this literature does not specifically deal with the role of the electric guitar in art music, it does provide evidence that supports the author's theories regarding the instruments incorporation into the art music canon. While the electric guitar is not specifically mentioned in detail in these sources, the influence of American popular music (Jazz, Blues and later Rock and Roll), film, technology and marketing as well as the presence of American GIs in Europe and Britain is discussed at length in *Kazaaam, Splat, Ploof: The American Impact on European Popular Culture Since 1945* (2003), *Issues in Americanisation and Culture* (2004) and *New Music, New Allies* (2006). These factors are directly related to how the electric guitar firstly came to be in Europe and then secondly, how it came to be incorporated into European art music. The following chapter is purely an overview of the social and cultural factors which may have led to the instrument's involvement in art music. It must be stated, however, that the topic deserves further detailed research and I call upon musicologists to further investigate this area.

### **3.1 The Influence of American Culture in Europe: 1920–1960**

In his book, *Jazz and the Germans*, Michael J. Budds writes regarding the introduction and reception of American Popular music in Europe:

As the influence of the United States became political, economic, and cultural reality, in most existing societies, this same music – as well as the music influenced by it – spilled over national boundaries to attract music lovers from all around the world. The communication technologies of the age and dramatic advances in opportunities for personal travel contributed immeasurably to the dissemination of American popular music abroad. Among the first on foreign shores to embrace new styles of the American musical vernacular were the peoples of France, England and Germany.<sup>101</sup>

By the late 1930s, African-American electric guitarists such as Charlie Christian and Freddy Green rose to prominence in the US by becoming fulltime members of the Benny Goodman Sextet and the Count Basie Big Band. These highly influential acts were at the height of their popularity in the US during this period (1939–45) due to radio airplay and concerts and this subsequently highlighted the electric guitar.<sup>102</sup> It is most likely that through this form of media the majority of the populace, both schooled classical musicians and laity, came to first hear the sound of the instrument.<sup>103</sup>

From the 1920s, American culture and technology experienced an ever-increasing presence and influence in European daily life. It was the presence of American soldiers from 1941 onwards which further integrated American culture into Continental society. Not since 1918 had there been a large scale presence of American nationals living in Europe, bringing their customs, culture, recreational activities, philosophies and dance bands. In 1938, Germany's Reich Chamber of Music officially

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<sup>101</sup> M.J. Budds, *Jazz & the Germans: Essays on the Influence of "Hot" American Idioms on the 20th-Century German Music*, vol. 17 (Pendragon Pr, 2002), 5.

<sup>102</sup> Waksman, *Instruments of Desire: The Electric Guitar and the Shaping of Musical Experience*, 22–31.

<sup>103</sup> *Ibid.*, 45.

banned recordings and performances of American jazz due to its African-American history and its African-American and Jewish performers. American jazz was however used by the Reich Chamber of Music as a musical backing to their anti-American radio propaganda programs. The intention was to criticise and humiliate American politics, armed forces and culture, but the Reich's propaganda appears to have only increased the popularity of jazz in Nazi occupied Europe. This unintentional influence is discussed by Ralph Willett in *Hot Swing and the Dissolute Life: Youth, Style and Popular Music in Europe 1939–1949*:

During the Second World War the proscription of jazz was circumvented in a number of ways, both official and unofficial: swing music with 'hot' solos as well as dance tunes became part of the German propaganda machine and could be heard on radio stations used for that purpose. 'Charlie and his Orchestra', for which the best jazz musicians in Europe, provide the swing background for parody lyrics poking fun at Churchill, Roosevelt and The Allies. In addition, recordings of officially approved bands reveal knowledge of arrangements by Bunny Berigan and Benny Goodman, whose music had been prohibited in Germany at the beginning of 1938. Old jazz records still existed in Germany, although it was impossible to buy new foreign jazz records in urban centres. However, through the Lindstrom Company's Swing Music Series, Germany was supplying the rest of Europe with original American jazz (tunes and arrangements

by Duke Ellington, Benny Goodman, Glenn Miller and Artie Shaw) – but played by non-Americans.<sup>104</sup>

Despite the war in Europe coming to an official end on 7 May 1945 (VE Day), the US presence in Europe remained as they took joint control of rebuilding West Germany and several other Western European nations. Although not engaged in active military combat, many hundreds of thousands of American servicemen were stationed in parts of Western Europe, and as a result many American themed recreational facilities were built to accommodate this expatriate populace. In his book, *The Americanization of Europe*, Alexander Stephan writes:

Postwar Europe would not be the same without the ubiquitous presence of America in television, movie houses and music clubs, fast food and matters of lifestyle, popular literature and musicals, education and the style of political campaigning ... American popular culture, which has already established firm footholds in the Old World during the Golden Twenties, invaded Europe with new intensity during the second half of the twentieth century, first by winning over the young and then by gradually eroding the resistance put up by elites eager to protect traditional high culture.<sup>105</sup>

The US was viewed as the embodiment of modernity. It was regarded as fashionable, technologically advanced and highly desirable. In the introduction to *Issues in Americanisation and Culture*, editors Neil Campbell, Judy Davies and George McKay wrote, “Technology and the cultural imagery of technology have largely come

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<sup>104</sup> R. Willett, "Hot Swing and the Dissolute Life: Youth, Style and Popular Music in Europe 1939–49," *Popular Music* 8, no. 02 (1989): 157.

<sup>105</sup> Alexander Stephan, *The Americanization of Europe: Culture, Diplomacy, and Anti-Americanism after 1945* (Berghahn Books, 2007), 1.

to dominate the iconography of modernity and to frame that dominant modernity as American. In ways that encompass popular and high culture, America comes to be seen as the new and the source of the new.”<sup>106</sup>

In the immediate aftermath of World War II, Beal posits that Germany and other European nations experienced a cultural renaissance. She writes:

The final months of the war had been catastrophic for Germany’s cultural infrastructure: by 1945, nearly ninety opera houses had been destroyed. But by the beginning of 1946, Berlin alone boasted nearly 200 halls and stages used for performances. To be sure, budding cultural initiatives soon reestablished a lively new music community throughout Germany. Many of these initiatives resulted directly from the Allies' commitment to rebuilding Germany's cultural infrastructure.<sup>107</sup>

The US strongly supported rebuilding Germany’s cultural infrastructure, however, they made sure that it was Allied-approved art and music so as to prevent the rise of any further Wagnerian inspired National-Socialist sentiments.<sup>108</sup> The US funded orchestras and arts programs through the Federal Republic of Germany’s arts initiatives provided fertile ground in which German contemporary art music thrived. This subtle method of re-education was highly successful in reactivating the German concert calendar. It appears that the US government’s involvement and attitude towards contemporary art music in Germany was more supportive and progressive than their

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<sup>106</sup> N. Campbell, J. Davies, and G. McKay, *Issues in Americanisation and Culture* (Edinburgh Univ Press, 2004), 13.

<sup>107</sup> Amy C. Beal, "Negotiating Cultural Allies: American Music in Darmstadt, 1946–1956," *Journal of the American Musicological Society* (2000): 108.

<sup>108</sup> Amy C Beal, *New Music, New Allies: American Experimental Music in West Germany from the Zero Hour to Reunification*, vol. 4 (Univ of California Press, 2006), 13.

interest in their own national arts programs. America's leading contemporary music composers were aware of this and regularly visited and resided in Germany where they received more support and appreciation for their art. In her book, *New Music New Allies: American Experimental Music in West Germany From Zero Hour to Reunification*, Amy C. Beal writes:

During the second half of the Twentieth Century, American composer-performers and West German cultural institutions contributed to an unprecedented international exchange of musical, aesthetic, and ideological viewpoints ... Following the German surrender in May 1945 and during the division of East and West from 1949–1990, the Federal Republic of Germany's state supported musical infrastructure provided the ground on which American experimental composers flourished. In West German venues John Cage, David Tudor, Morton Feldman, Earle Brown, Christian Wolff, La Monte Young, Terry Riley, Frederic Rzewski, Alvin Curran, Steve Reich, Pauline Oliveros, Alvin Lucier, and many others found unparalleled opportunities – in the concert hall, on the radio, at contemporary music festivals, in private venues, in print media, and through exchange programs.<sup>109</sup>

In light of the physical presence and cultural dominance of US forces in Europe, I deduce that European art music composers came to incorporate the electric guitar in their works after hearing the instrument on imported US records played on local US approved radio stations, as well as seeing the instrument at local night clubs as part of

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<sup>109</sup> A. C. Beal, *New Music, New Allies* (University of California Press), 1.



US dance bands. I believe that Germans would have come in contact with the electric guitar and American popular music and culture at local 'America Houses'.

As part of "reeducation" in the American zone - Bavaria, Greater Hesse, Baden-Württemberg, the city of Bremen in the north, and a sector of West Berlin- American newspapers, radio broad-casting stations, America Houses, and the Theater and Music Branch all dis-seminated an ideology of democracy while reviving German culture. The network of information centers known as America Houses, present in most larger cities by the early fifties, were an important part of re-education. America Houses had been established "for the unilateral dissemination of information about the history, traditions, and customs of the United States and the social, political, industrial, scientific, and cultural development of the American people." At America Houses, Germans had ample opportunities to explore American culture through lectures, concerts, and exhibitions.<sup>110</sup>

By the early 1950s, when the solid body electric guitar began being commercially mass produced, the instruments presence in Europe began to increase, most likely due to American troops who had brought their own instruments with them while deployed overseas.<sup>111</sup> It was at this time that the international popularity of jazz was beginning to be surpassed by rock n' roll. Musicologist Albin Zak III has commented that, "by 1955, it was clear that the new musical trend centred in the social worlds of teenagers had taken solid shape," and "a young country singer with the curious name of Elvis Presley was electrifying young southern [US] audiences with a

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<sup>110</sup> Beal, "Negotiating Cultural Allies: American Music in Darmstadt, 1946–1956," 108–09.

<sup>111</sup> Refer to Richard Toop's comments in 3.3 of this thesis.

sound unlike anything found among his fellow entertainers.”<sup>112</sup> This new genre spawned a pop culture revolution which resulted in the electric guitar’s ubiquity throughout all western cultures.

It is easy to speculate how some young European composers may have been intrigued by the electric guitar while others were compelled enough to compose for the instrument. It appears that the European art music communities’ reception of the electric guitar was greater than that of the American compositional community, and the question arises as to why there were so few American art music compositions written between 1950–59 that featured the electric guitar. The approximate ratio for European to American electric guitar compositions at the time is 8:1.

The only three published American compositions featuring the electric guitar written between 1950–1959 that I have been able to locate are: Earle Brown’s ballet, *Indices* (1954); Leonard Bernstein’s *West Side Story* (1957) and Harold Shapiro’s *On Green Mountain* (1958). Did the leading American art music composers of the time such as John Cage (1912–1992), Edgard Varése (1883–1965), Milton Babbitt (1916–2011), Conlon Nancarrow (1912–1997), Elliott Carter (1908–2012) Cornelius Cardew (1936–1981) and Aaron Copland (1900–1990) have reservations about composing for an instrument which was heavily associated with a ‘low art’, pop culture revolution that was happening in their own country at the time? Unfortunately all of the above composers have passed away, and literature searches have not revealed any comments by them as to why they never wrote for the electric guitar or even their general feelings towards the instrument.

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<sup>112</sup> A. Zak, *I Don’t Sound Like Nobody: Remaking Music in 1950s America* (University of Michigan Press, 2010), 43.

The electric guitar is one of the most definitive icons of popular music and popular culture. It represents everything that is low art, wild, rebellious and anti-establishment.<sup>113</sup> The above composers may have felt that by incorporating the electric guitar into their compositions, they would have been following the mainstream pop culture trend of the time to which they may have been artistically opposed. Of course this is all just mere speculation on my behalf as there is no factual evidence available as to why the electric guitar did not feature more prominently in American art music between 1950–1959, and unfortunately there appears to be no definitive way to obtain such evidence.

It should be mentioned that both *West Side Story* and *On Green Mountain* straddle the classical and popular music worlds. At the time they were both composed, their use of the electric guitar was most likely justified by the genres which they represented – Broadway musicals and ‘third stream’.<sup>114</sup> *On Green Mountain* is an early ‘third-stream’ work in which classical art music (first stream) and jazz (second stream) are blended. In this case Shapiro’s classical composition, with jazz influences, is scored for a jazz ensemble.

It is interesting to note that all but two of the electric guitar’s art music compositions written between 1950–1959 were published by European publishing houses. The US based publishing house Peer Music Classical published Brown’s and Shapiro’s compositions. Several European publishing houses were supportive of these composers’ new endeavours such as Universal Edition, Edizioni Suvini Zerboni and

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<sup>113</sup> Minhinnett and Young, *The Story of the Fender Stratocaster*, 6.

<sup>114</sup> Gunther Schuller, *Musings: The Musical Worlds of Gunther Schuller: The Musical Worlds of Gunther Schuller* (Oxford University Press, USA, 1989), 114–18.

Schott (for a full list of publishers which supported composers writing for the electric guitar see Table 3).

**Table 3: List of publishing houses who published art music works containing electric guitar between 1950–59.**

<u>Universal Edition</u>	<u>Edizioni</u>	<u>Schott</u>	<u>Edition</u>	<u>Boosey</u>	<u>Musique</u>	<u>Breitkopf</u>	<u>Peer</u>	Other
universaledition.com	<u>Suvini</u>		<u>Peters</u>	<u>&amp;</u> <u>Hawkes</u>	<u>Nouvelle</u> <u>en</u> <u>Liberté</u>	<u>&amp; Härtel</u>	<u>Music</u>	
Austria	Italy	Germany	Germany	UK	France	Germany	USA	
6	5	3	3	1	1	1	2	6

In the majority of the repertoire written between 1950–1959, the electric guitar assumes the role of an accompanying instrument, in either an orchestral or chamber setting. Occasionally the instrument has solo passages where it appears to be used more for the novelty of its tone colour and timbres rather than its capacity to execute important thematic material. It should also be noted that to a listener in the twenty-first century, the manner in which the electric guitar has been used in these compositions sounds bland. The reason for this is that when the electric guitar was initially incorporated into art music, the overriding tone of the instrument as found in more popular genres of music such as jazz, country and blues was ‘clean’<sup>115</sup> as, at that point in the instruments development the concept of effects pedals had not been explored.

<sup>115</sup> Clean refers to a sound that is without distortion or any other sonic effects. Guitarists may add reverb to their clean tone for added warmth and sustain.

The now-ubiquitous use of an electric guitar running through a series of effects pedals did not begin to take place in popular music until the mid to late 1960s. By today's standards there is little novelty in a 'clean' electric guitar tone, but in the 1950s when this instrument had never before been heard in an art music context, the amplified sounds juxtaposed against an acoustic ensemble would have been more novel.

### **3.2 Interchangeable Terminology: Amplified Acoustic Guitar versus Electric Guitar**

Some chamber music and orchestral compositions written between 1950 and the late 1960s can be performed on either amplified acoustic guitar or electric guitar mainly due to the fact that the part is fairly straightforward and does not require any special effects or extended techniques. Often the main requirement is that the guitar, whether a classical or electric model, is sufficiently amplified. An example of this is George Crumb's 1968 song cycle, *Songs, Drones and Refrains of Death*. The instrumentation of this work specifies one electric guitar, yet, "the composer sanctions performance with amplified acoustic (classical) guitar<sup>116</sup>, provided there is an appropriate pickup available."<sup>117</sup> Berlin-based American classical/electric guitarist, Seth Josel remarks regarding the interchangeable terminology:

In part it's the catalogue fault [system of listing instruments in compositions]; I think that we [Sheerpluck.de] were very eager as it were to get all this data online. If you do the research, you have to take it case by case [assess each composition with electric guitar] because you have this thing with amplified

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<sup>116</sup> George Crumb, "Songs, Drones and Refrains of Death," in *Ensemble New Art., Kent, Faut.* (USA: Naxos, 2004).

<sup>117</sup> Heim and Josel, "Sheerpluck: Database of Contemporary Guitar Music." Accessed on 7/12/11.

[classical] guitar and electric guitar. You have a syntax problem; it's more a semantic problem. I think that the words were interchangeable [during the 1950s and early 1960s]. My guess and I have to confess I haven't researched it to a great extent – if you look at Maderna, if you look at Berio, if you look at Boulez, you have to exercise extreme caution in it and the electric guitar and I think that if you move through the 1960s, the repertoire that is, then you have a slow 'coming in to being' of what we now commonly refer to as an electric guitar. You have a grey area where the words were interchangeable.<sup>118</sup>

In the context of art music, especially that of the 1950s the term 'guitar' commonly refers to classical guitar which in the case of a large chamber or orchestral work would require an 'amplified acoustic guitar' otherwise the instrument will not be heard (see the quote from Toop below). If the composer requires an electric guitar it will be written as 'electric guitar', 'e-guitar' or 'el.gtr' so as to eliminate any confusion between acoustic and electric models.

### **3.3 The *Gruppen* Myth**

As previously noted, people may be forgiven for believing that Karlheinz Stockhausen's *Gruppen für drei Orchester* (1955–1957) marked the electric guitar's first foray into contemporary classical music, but this was not the case. It is fair to say that *Gruppen* is the most well-known composition from the 1950s and early 1960s which features electric guitar, and hence this fame maybe the reason for incorrect attribution. Stockhausen never commented on why he included the electric guitar in *Gruppen*. However, his teaching assistant and close friend, musicologist Richard Toop,

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<sup>118</sup> Personal correspondence with Seth Josel (1/8/11).

was interviewed by myself regarding Stockhausen's inclusion of the instrument in this composition.

**Zane Banks:** Did Stockhausen ever talk to you about why he chose the electric guitar [for his 1957 work *Gruppen*]?

**Richard Toop:** My first response is no, I didn't discuss it with him. My guess would be almost by accident in this sense, that when Stockhausen was deciding on his orchestra he was always thinking very much in terms of families, like bowed strings, plucked strings etc. Then he would say "OK, how many keyboards do I want, and they have to be different!" And my guess would be, piano is obvious, celesta is standard, vibraphone, marimba, but he would have wanted something else and he probably would have said, guitar. Why electric guitar? Well it's obvious, you're not going to hear an acoustic guitar in *Gruppen* [laughs], perhaps for the first couple of bars maybe, otherwise it wouldn't stand a chance!

Did he have a sophisticated notion of the electric guitar? No, I don't think so; I mean obviously he would be aware of the electric guitar in Cologne, through pop music. But then why pop music? Through the American occupation. He was playing piano in bars as a young guy in the early 1950s just to make a living. Now those (bars) were ones typically where the American forces were because that's where he picked up better tips ... on the whole. And chances are, OK, I'm speculating, but it would be very surprising if there wasn't the odd electric guitar lying around there. Again it probably wouldn't have been a fancy Fender or

what have you, it was probably something very basic with the kind of amplification you hear on old Muddy Waters records and things like that. Essentially that is the guitar in *Gruppen*, it's an amplified R&B guitar pretty much - not stylistically, but if you listen to the old recording from the 1950s, that's the sort of sound.<sup>119</sup>

Of the fifteen known composers who wrote for the instrument between 1950–1959, Stockhausen is the most well-known. His status and reputation would have ensured that each new work he composed would be carefully listened to and analysed by a substantial following of composers, composition students, critics, musicologist and enthusiasts. *Gruppen* also marks a turning point in art music composition: musicologist Imke Misch remarked in his article, 'On the Serial Shaping of Stockhausen's *Gruppen für drei Orchester*', "'Gruppen für drei Orchester' belongs among the first works of the New Music after 1950 in which space, in the sense of surrounding was included as a structural dimension in the shaping process."<sup>120</sup> In 1959 *Gruppen* received the praise of, Igor Stravinsky which no doubt would have further cemented the work's status. Stravinsky was asked by interviewer Robert Craft, "What piece of new music has most interested you in the last year?" To which Stravinsky replied:

Stockhausen's *Gruppen*. The title is exact: the music really does consist of groups, and each group is admirably composed according to its plan of volume, instrumentation, rhythmic pattern, tessitura, dynamic and various kinds of highs and lows. Stockhausen's orchestra is full of remarkable sounds. Let me cite only

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<sup>119</sup> Personal correspondence with Richard Toop. 23/2/11.

<sup>120</sup> I. Misch, F. Hentschel, and J. Kohl, "On the Serial Shaping of Stockhausen's *Gruppen Für Drei Orchester*," *Perspectives of New Music* (1998): 142.



a few places, for example the solo [electric] guitar music at bar 75, and the music three bars before bar 102.<sup>121</sup>

Unfortunately the other composers who wrote for the instrument apart from Luciano Berio, Hans Werner Henze, Bernd Alois Zimmermann and Leonard Bernstein,<sup>122</sup> remained lesser known and as a result never received the credit they deserved for pioneering the classical electric guitar repertoire (see Table 4). Seth Josel believes that the German composer Bernd Alois Zimmermann (1918–1970) was the first ‘legitimate’ composer to successfully write for electric guitar:

If you look on Sheerpluck.de you will see an inordinate number of pieces [Zimmermann’s works] which have electric guitar [ensemble pieces]. There are two elements [to Zimmermann]. If you believe in the post-modern aesthetic, many believe that he was actually representing that aesthetic before they were talking about post-modernism. If you want to talk about the Frank Gehry of composition, it was Zimmermann. He was a great fan of bebop and American jazz. He just loved having that rhythm guitar in there [in his compositions] and to have the occasional single line [melody]. He’s the first really legitimate composer to take this instrument seriously and to work it into an orchestral and ensemble form. You see it [effective use of the electric guitar] in *Metamorphose* (1954), you see it in the Trumpet Concerto – *Nobody Knows the Trouble I See* (1954) you especially see it in *Die Soldaten* (1965), which is, at least for the European community, one of the most important stage works of the twentieth

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<sup>121</sup> I. Stravinsky and R. Craft, *Memories and Commentaries*, vol. 502 (Univ of California Pr, 1981), 118–19.

<sup>122</sup> Despite being well known and established composers it appears that Berio, Henze and Bernstein never received any acclaim for writing for the electric guitar before Stockhausen.

century, it's next to Berg's *Wozzeck*. It [*Die Soldaten*] has a very big electric guitar part.<sup>123</sup>

The 1960s was a period which saw an increased interest from composers in extended techniques, timbre and texture. This increased exploration into 'new sounds' is typified by Bruno Bartolozzi's *versuch* on oboe extended techniques and multiphonics.<sup>124</sup>

**Table 4: Electric guitar compositions written between 1950–1959. The works are listed in chronological order rather than alphabetical order.**

Composer	Work	Publisher	Duration	Instrumentation	Date
Maderna, Bruno Italy (1920– 1973)	<i>Studi per 'Processo' di Kafka</i>	Edizioni Suvini Zerboni esz.it	20'	El. Gtr, Soprano, Reciter, Sax, Perc, Cel, 2 Harp, Pno, Strings.	1950
Berio, Luciano Italy (1925– 2003)	<i>Allez Hop 'racconto mimico'</i>	Edizioni Suvini Zerboni esz.it	28'	El. Gtr, Mezzo Soprano, Mimes, Ballet, Orchestra, Perc, Pno.	1953 – 1959 Rev. 1968

<sup>123</sup> Personal correspondence with Seth Josel (1/8/11).

<sup>124</sup> B. Bartolozzi, *New Sounds for Woodwind*, vol. 96 (Oxford University Press, USA, 1982).

Henze, Hans Werner Germany (1926– 2012)	<i>Das Ende einer Welt (stage work)</i>	Schott Schott-music.com	40'	El. Gtr, Classical Guitar, Bass Guitar, Solo Voices, Chorus, Recorder, Flute Ocarina, Bassoon, Jazz Trumpet, Jazz Tbn, Perc, Harp, Pno, Harmonium, Accordion, Mandolin, Strings, Tape.	1953 Rev. 1993
Gnattali, Radamés Brazil (1906– 1988)	<i>Suite Popular Brasileira</i>	radamesgnattali.com. br	22'35"	El. Gtr, Pno.	1953
Berio, Luciano Italy (1925– 2003)	<i>Nones for Mr and Mrs Berberian</i>	Edizioni Suvini Zerboni esz.it	10'	El. Gtr, Orchestra, Pno.	1954
Brown, Earle USA (1926– 2002)	<i>Indices (Ballet)</i>	<a href="http://www.earle-brown.org/">http://www.earle- brown.org/</a> Edition Peters	28'	El. Gtr, Flute, Horn, Trumpet, Perc, Pno, Strings.	1954
Muyazumi, Toshiro Japan (1929– 1997)	<i>Ectoplasme</i>	Edition Peters edition-peters.de	6'	El. Gtr, Perc, Pno, Claviolin, Celesta, Harp, Strings.	1954

Zimmermann, Bern Alois Germany (1918–1970)	<i>Metamorphose</i>	Schott schott-music.com	25'	El. Gtr, Orchestra.	1954
Stockhausen, Karlheinz Germany (1928–2007)	<i>Gruppen</i>	Universal Edition universaledition.com	25'	El. Gtr, 3 Orchestras, Percussion Ensemble.	1955 - 1957
Gnattali, Radamés Brazil (1906–1988)	<i>Brasiliana No. 9</i>	radamesgnattali.com. br	Not Avalia- ble	El. Gtr, Bass, Drum kit, Accordion, Cello, 2 Pno.	1955
Schnebel, Dieter Germany (b. 1930)	<i>Compositio Versuche IV</i>	Schott schott-music.com	11'	El. Gtr, Orchestra.	1955 – 1956 Rev. 1964 – 1965
Gnattali, Radamés Brasil (1906–1988)	<i>Sonatina Coreográfica</i>	radamesgnattali.com. br	14'16''	El. Gtr, Pno, Accordion, Db, Drum kit.	1956
Radauer, Irmfried Austria (1928–1999)	<i>Curriculum</i>	Edition Peters	Not Avalia- ble	3.2.3.4 – 4.3.3.1 Timp, Perc, Harp, Cel, Pno, El. Gtr, Strings.	1956 – 1957
Berio, Luciano Italy (1925–2003)	<i>Alleluja II</i>	Edizioni Suvini Zerboni esz.it	19'	El. Gtr, 5 Orchestral Groups	1956 – 1958

Savery, Finn Denmark (b. 1933)	<i>Blues for Strygere</i>	sheerpluck.de	Not Avalia- ble	El. Gtr, String Quartet, 3.3.1.1.	1956 – 1957
Savery, Finn Denmark (b. 1933)	<i>Den Forvandlede Prinsesse</i>	sheerpluck.de	20'	El. Gtr, Fl, Pno, Vibraphone, Cello. 3.3.1.1.	1957
Berio, Luciano Italy (1925– 2003)	<i>Divertimento</i>	Edizioni Suvini Zerboni esz.it	12'	El. Gtr, Orchestra, Pno.	1957
Bernstein, Leonard USA (1918– 1990)	<i>West Side Story</i>	Boosey & Hawkes Boosey.com	89'	El. Gtr, Orchestra, Musical Cast.	1957
Nilsson, Bo Sweden (b. 1937)	<i>Mädchentotenlie der</i>	Universal edition universaledition.com	8'	El. Gtr, El. Mandolin, Flute, Perc, Vln, Cello, Db, Harp, Celesta.	1957 – 1958
Duhamel, Antoine  France (b. 1925)	<i>Le Concile Fréérique</i>	Musique Nouvelle en Liberté <a href="http://www.mnl-paris.com/web/association">http://www.mnl- paris.com/web/associ ation</a>	45'	El. Gtr, Sax, Ensemble, 5 part Chorus, Perc, Db, Harp.	1958
Nilsson, Bo Sweden (b. 1937)	<i>Versuchengen</i>	Universal edition universaledition.com	5'	El. Gtr, Orchestra, Perc, loudspeaker.	1958

Engleman, Hans Ulrich Germany (1921– 2011)	<i>Noche de Luna (Ballet)</i>	Breitkopf & Härtel breitkopf.com	15'	El. Gtr, Strings (no Db), Flute, S. Sax, Trumpet, Tbn, Perc, Harp, Harpsichord.	1958
Schönbach , Dieter Germany (b. 1931)	<i>Canticum Psalmi Resurrectionis</i>	Universal Edition universaledition.com	9'	El. Gtr, Sop, Fl, Tpt, Perc, Vla (2).	1958
Shapero, Harold USA (b. 1920)	<i>On Green Mountain</i>	Peer Music Classical Peermusic- classical.de	9'	El. Gtr, Orchestra.	1958
Savery, Finn Denmark (b. 1933)	<i>Veil for Midnight</i>	sheerpluck.de	Not Avalia- ble	El. Gtr, Pno, Db. 3.3.1.3.	1958
Nilsson, Bo Sweden (b. 1937)	<i>Ein Irrender Sohn</i>	Universal edition universaledition.com	8'-10'	El. Gtr, El. Mandolin, Flute, Perc, Vln, Db, Harp, Celesta.	1959
Nilsson, Bo Sweden (b. 1937)	<i>Und die Zeiger seiner Augen Wurden langsam Zurückgedreht</i>	Universal edition universaledition.com	12'	El. Gtr, Sop, Alto, Women's Chorus, Orchestra, Perc.	1959
Savery, Finn Denmark (b. 1933)	<i>Egetaepper</i>	sheerpluck.de	Not Avalia- ble	El. Gtr, Cl, Perc, Pno, Vibraphone, Db. 3.3.1.4.	1959

### 3.4 The Electric Guitar in Art Music from 1960

‘Since the electric guitar’s ‘probation’ in classical music during the 1950s, there has been a steady increase in the number of classical compositions written for the instrument (see Table 6). As previously mentioned by the mid to late 1960s, with the advent of rock, heavy metal and psychedelia, the electric guitar began to feature as a virtuosic solo instrument in popular music which used many different tones and sound effects<sup>125</sup>. Innovative improvements in amplifier and effects pedal technology allowed a plethora of different tones and timbres and once the instrument became an integral part of popular music it also began to feature in classical repertoire in a more virtuosic and idiomatic way.

Composers were presented with an instrument which was far more versatile than it had been in the 1950s. As previously mentioned there was a growing contingent of established rock guitarists such as Jimi Hendrix, Eric Clapton, Jeff Beck, Jimmy Page and Dave Gilmore who would perhaps have been technically and musically capable of performing complex classical works written for the instrument; although all possessing formidable techniques which ultimately redefined how the electric guitar could be played, none of these players were as proficient at reading music as their classical music contemporaries and this may account for why they did not actively perform notated contemporary music. Had it not been for these developments, classical composers would have had little to work with as the majority of art music compositions written for electric guitar, borrowed techniques, timbres and textures which were the foundation of

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<sup>125</sup> The term ‘rock’, should not be confused with, ‘rock and roll’. Rock and Roll denotes the 1950s form of popular music also known as ‘rockabilly’ whereas ‘rock’ implies popular music post ‘British invasion’ – such ‘rock’ acts are, The Beatles, The Rolling Stones, The Monkeys, The Who etc. Heavy Metal is a musical genre born out of 1960s/1970s English and American blues rock and psychedelic rock. Here the author is referring to the pioneering form of heavy metal characterised by bands like, The Jimi Hendrix Experience and Cream, not later heavy metal sub genres associated with Van Halen and Metallica.

the instruments practice in popular music. Seth Josel commented regarding the influence of the electric guitars popular music association:

With the passing of the 1960s and with the coming in to being of Ensemble Itineraire in Paris, then we start to really see electric guitar music, the electric guitar music that we can more or less say, “that’s the kind of sound and the aesthetics that early composers of electric guitar music were going for,” that is reflecting what was going on in the vernacular. [For example] In Murail’s *Vampyr!* [1984] - talking about the Carlos Santana sound. People were making very specific associations with a kind sonic world that they were easily able to relate to and saying, “I want this type of sound.”

From analysis of the repertoire, one can observe a sizable increase in the number of classical electric guitar compositions written after 1960. Orchestral or chamber compositions which feature an electric guitar part account for the largest percentage of published repertoire.<sup>126</sup> Only a small percentage of compositions present the electric guitar as the featured soloist, with either a chamber or orchestral accompaniment and an even smaller percentage accounts for unaccompanied electric guitar works (See section 3.5, Table 7). It does appear however that although the quantity of repertoire has significantly increased, the ratios between the three categories of works have remained similar.

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<sup>126</sup> Heim and Josel, "Sheerpluck: Database of Contemporary Guitar Music."



**Table 5: Number of works written for electric guitar per decade, data sourced from Sheerpluck.de (accessed between March 2011 and March 2013).**

Decade	1950– 1959	1960– 1969	1970– 1979	1980– 1989	1990– 1999	2000– 2009
No. of works (chamber/unaccompanied)	28	190	363	571	1298	1950

**Table 6: Breakdown of the 621 works catalogued in Appendix D. The Sheerpluck.de repertoire list and my own repertoire list share some works. In my own repertoire list there were eighty-four compositions for which I could not find dates.**

Decade	1950– 1959	1960– 1969	1970– 1979	1980– 1989	1990– 1999	2000– 2009
No. of compositions	28	36	39	51	144	238

According to Sheerpluck.de there have been 302 art music works written from 2010 to the present day (May 2013) which include electric guitar. This substantial increase in repertoire raises the question: is this increase due to a growing number of composers writing for the instrument or is it purely a result of population growth and a greater number of composers than before? Although this is a valid question, unfortunately there is no research which could deliver a definitive answer. The most likely answer, however, is that it is a combination of both. It is true that due to population growth the number of creative artists worldwide has greatly increased and composers are no exception. Modern technology in the form of the internet, MP3, DVD, WAV, PDF as well as compositional and recording software, has made listening to music, composing and recording more accessible to the general populace than ever before.<sup>127</sup> Composers no longer need to be signed to major publishing houses; they can

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<sup>127</sup> Marc Leman, *Embodied Music Cognition and Mediation Technology* (Cambridge, MA: MIT Press, 2008), 22–23.

now send PDF copies of their scores and audio recordings of their works all around the world instantaneously. It appears to be self-evident that the creation of this new technology, coupled with a larger population, has created an increase in compositions for all instruments, not just electric guitar<sup>128</sup> – this is not to say that the quality of composition has improved, just that there are more compositions being written than before.

The other half of the answer is that interest from composers and classical musicians in general has probably increased. Apart from Segovia's remark about the electric guitar being an 'abomination', documented accounts of composers' and performers' disdain for the electric guitar are very difficult to find. There have always been a handful of composers who embrace modern technology and incorporate it in to their art in order to challenge tradition. In this instance, instruments such as the electric guitar may be viewed by the classical cultural elite as misplaced: colloquial and unfit for the concert hall. This again is speculation on the author's behalf, however, a parallel may be drawn between the American folk music community and the classical community in their initial response to the electric guitar. Both of these communities were known for elitism, conservation of tradition and resistance to 'electricity'. In his book, *Instruments of Desire*, Steve Waksman details the American folk community's response to Bob Dylan's decision to 'go electric' at the 1965 Newport Folk Festival – I believe that similar sentiments may have been felt by the classical elite when they were first exposed to an electric guitar in an art music setting.

Brandishing an electric guitar, Dylan assaulted the idea of an authentic musical community held by the most devoted folk enthusiasts, within which acoustic

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<sup>128</sup> Ibid., 22–24.

instruments were valued for the intimacy they promoted as people gathered around to hear the musician. An acoustic guitar was just loud enough to make music, but not so loud that it would drown out the voice of the singer, or any in the audience who wanted to sing along. An electric guitar by contrast, made too much noise, and in so doing converted an audience comprised of individuals into a mass whose attention was overwhelmed by the sound of it all.<sup>129</sup>

Aesthetic attitudes can take generations to change and now sixty-one years after Maderna's pioneering work, *Studi per 'Processo' di Kafka* the electric guitar, although still a peripheral classical instrument, is now experiencing greater popularity in the art music world as well as amongst the general populace than ever before. Evidence of this can be seen in compositions written for massed electric guitar ensembles by composers Glenn Branca (b. 1948) and Rhys Chatham (b. 1952). In 2005, the city of Paris commissioned Chatham to write a massed electric guitar composition for their La Nuit Blanche Festival. This commission resulted in the creation of a composition for 400 electric guitars entitled, *A Crimson Grail* which was to be performed at the basilica of Sacré-Coeur. Chatham later rearranged this work for 200 electric guitars for a performance at the Out of Doors Festival at the Lincoln Centre in New York (2009). This composition is an example of the classical electric guitar's rise in popularity: the mere fact that the city of Paris and New York's Out of Doors festival would commission and stage the work in question is testament to this. It is also evidence of the electric guitar in an art music setting reaching a wider non-classical audience. The music critic Marc Master wrote, when referring to *A Crimson Grail's* Parisian premiere,

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<sup>129</sup> Waksman, *Instruments of Desire: The Electric Guitar and the Shaping of Musical Experience*, 1.

“nearly 1000 people witnessed this mini-miracle, while thousands more watched on television throughout France.”<sup>130</sup>

The electric guitar’s increased popularity amongst the art music world is largely due to the fact that most composers were born after the invention of the electric guitar and subsequently grew up listening either consciously or unconsciously to the instrument and popular music. There are of course exceptions to this such as Georges Lentz who loathed the electric guitar and popular music until aged in his forties.<sup>131</sup> The electric guitar is no longer totally viewed as an intruder or imposter in art music; it is now a ubiquitous part of western culture and has been since the late 1960s. “I think there’s great openness to it [electric guitar],” says American composer Derek Bermel. “It’s become something that people have to use because it is of our time ... everyone needs to express themselves within their own generation and within the context of their life and environment.”<sup>132</sup> Every day we are bombarded with the sound of the electric guitar or electric guitar imagery in both public and private spaces through television, radio, internet, advertisements, concerts and portable audio players. It is a fundamental instrument in the soundtrack to western daily life.

### **3.5 Unaccompanied ‘Classical’ Electric Guitar Repertoire**

The first unaccompanied electric guitar composition to which the author has been able to find reference is Morton Feldman’s now lost, but re-transcribed work, *The Possibility of a New Work for Electric Guitar* (1966).<sup>133</sup> In the decades since the 1960s,

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<sup>130</sup> Marc Masters, "Rhys Chatham: A Crimson Grail (for 400 Electric Guitars)," Pitchfork, <http://pitchfork.com/reviews/albums/9883-a-crimson-grail-for-400-electric-guitars/>. Accessed on 15/5/14

<sup>131</sup> Refer to Chapter 4 (4.5.4.1. and 4.5.4.2.) as well as Chapter 6 (6.2) information about detailing Lentz’s initial views towards the electric guitar.

<sup>132</sup> Personal communication with Derek Bermel on 16/12/11.

<sup>133</sup> Chris Villars, "The Story of Morton Feldman's the Possibility of a New Work for Electric Guitar," (2009), <http://www.cnvill.net/mfpossibility.pdf>. Accessed on 23/5/13.

there has been a steady increase in the amount of works composed for unaccompanied electric guitar (see Table 7). In some years, such as 1997, 1998, 2002, 2003, 2006, 2007 and 2008 the instrument gained at least eight unaccompanied compositions per year. Overall, each decade has witnessed an increase in the amount of unaccompanied works written for electric guitar but this consistency is not an annual phenomenon. For example: in 1998 there were twelve such works written for the instrument yet in 1999 it received only two unaccompanied compositions. Of the approximately 4,670<sup>134</sup> art music works written for electric guitar which have been brought to the author's attention during the course of this research project, roughly 180 of those works have been written for, or include, the unaccompanied electric guitar; representing 3.85% of the overall classical electric guitar repertoire.

A number of these works are quite obscure and may be unknown to many in electric guitar and new music communities. Uncovering new music works for unaccompanied electric guitar is challenging and it can be even more difficult to find significant numbers of recordings as some of these compositions were never recorded. The compositions which have been recorded may have only been released on small obscure labels, and were thus subject to a restricted number of manufactured copies and limited distribution. Occasionally the premiere live performance of a composition may have been recorded by a local radio station and aired once, but often after its maiden airing the recording may be catalogued and no longer publically available. It was also not uncommon for some of these compositions to have been recorded, either live in concert or in a studio setting, but for numerous reasons they have never been commercially released and only a fragment of the original recording has been uploaded

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<sup>134</sup> This number was calculated in March 2013.

on the composer's or publisher's website to give listeners a idea of what the composition sounds like. Composers may also keep recordings of their works for private use but they may not wish for them to be commercially released. It should be mentioned that the difficulties the author has experienced in trying to uncover recordings of unaccompanied electric guitar works is not unique to this instrument.

**Table 7: Breakdown of the annual number of unaccompanied electric guitar compositions written between 1966–2011. This data was sourced from publishing houses, music information centres and the contemporary guitar database, sheerpluck.de.<sup>135</sup> For a complete listing of these works see Appendix D or visit sheerpluck.de. It should be noted that an additional 6 works are not included in the table as no date is recorded for them and any work which took more than one year to write, for example, 2003–2009, is included in the year group in which it was completed (i.e. 2009)**

<b>Year</b>	<b>1966</b>	<b>1968</b>	<b>1969</b>	<b>1972</b>	<b>1977</b>	<b>1978</b>	<b>1979</b>	<b>1980</b>	<b>1981</b>
<b>No. of Unaccompanied works for El Gtr</b>	1	1	2	2	2	1	2	1	3

<b>1984</b>	<b>1985</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>
4	2	7	1	1	2	2	6	4	6

<sup>135</sup> Heim and Josel, "Sheerpluck: Database of Contemporary Guitar Music." Accessed on 24/8/12.

1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
5	5	6	10	12	2	6	6	8	10

2004	2006	2007	2008	2009	2010	2011
5	8	8	12	7	4	1

Even in popular music genres, unaccompanied electric guitar compositions are rare and are greatly outnumbered by works for electric guitar and at least one other instrument. This could be largely due to the fact that the vast majority of popular electric guitarists play with plectrums which are ideal for executing single lines, strumming chords or playing occasional double stops but vastly inadequate when executing contrapuntal figures and chord-melody arrangements. Most electric guitarists who do perform unaccompanied electric guitar repertoire such as jazz guitar virtuosos Joe Pass (1929–1994) and Wes Montgomery (1923–1968), usually play exclusively with their fingers, or in Montgomery’s case, his thumb. In folk and country music, guitarists such as Chet Atkins (1924–2001) and Tommy Emmanuel (b. 1955), are known as ‘thumb pickers’: they too play with their fingers, but wear a thumb pick on their right thumb to help articulate bass notes.<sup>136</sup> Plectrum players such as Danny Gatton (1945–1994), favoured ‘hybrid picking’ technique when executing multi voice figures. Hybrid picking combines both plectrum and fingers, allowing the player to pluck chord melodies as well as triple stops. The popular music genres which

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<sup>136</sup> A thumb pick is a plectrum which attaches to a guitarists picking hand thumb. The purpose of this is to free the index finger from holding the plectrum thus enabling them to execute finger picking passages with greater ease.

occasionally feature the electric guitar as a self-contained, stand-alone instrument include solo arrangements of jazz standards, solo finger picking arrangements of popular songs and occasional blues guitar solo pieces. This genre may also include improvised electric guitar solos which are often performed live, for example Jimi Hendrix's 1969 *Woodstock Improvisations*. It should be noted that this style of performance is usually executed solely with a plectrum. All of the techniques mentioned, except for 'thumb picking', are frequently used by electric guitarists when performing new music compositions on the instrument.

### **3.6 Reflections**

Investigation into the many online publishing house catalogues, music information centres and online repertoire databases provided numerous valuable insights into the nature and evolution of classical electric guitar repertoire. This data was the basis of the tables and percentages featured in this chapter which provided, decade-by-decade data on where and who was writing for electric guitar in art music and what kind of compositions they were writing. For a complete list of all the classical electric guitar works which I came across during this research project please refer to Appendix D.<sup>137</sup>

This data is unable to explicitly explain why certain composers in particular countries at specific times wrote for the electric guitar. It also does not address how the performers who played these works felt about such repertoire and the instrument's receptions by the art music community. To compliment this information, it became clear that an extensive interview and analysis process needed to be undertaken in order

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<sup>137</sup> For an extensive list of classical electric guitar repertoire also refer to Klaus Heim's and Seth Josel's online database, [sheerpluck.de](http://sheerpluck.de)



to find out the motivations, reasons and experiences behind composing for electric guitar, or performing classical electric guitar repertoire. Fortunately, many of the key composers and performers who have been integral in promoting the electric guitar and expanding its' repertoire are still alive and were willing to discuss their experiences, attitudes and perceptions relating to the electric guitar's role in art music. This is the focus of Chapter 4.

## 4 Chapter 4: Interviews with Composers and electric Guitarists

A lot of composers might be scared of the instrument [electric guitar] for a number of reasons; there may be the ones [composers] who realise it's difficult to write for and that it's a hands on instrument and they don't play it, it might be off putting – Michael Smetanin<sup>138</sup>

### 4.1 Introduction

This chapter investigates current attitudes towards the electric guitar. This chapter draws on forty-eight interviews with composers, electric guitarists and a musicologist to discover a wide range of views and experiences with the electric guitar. Specifically, the chapter will explore: composers' inspiration to write for the instrument; the compositional process and recommendations for future composers; and performers'<sup>139</sup> attraction to the instrument, experience of performing the repertoire, collaborations with composers and recommendations for future composers and performers. As the instrument is still in its art music adolescence (as has been described in Chapter 3), there is a research imperative to understand the current state of play of the electric guitar in contemporary art music. This project aims to investigate and document composers' and performers' experiences, attitudes and perceptions that relate to the electric guitar's role in art music in the past, present and future.

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<sup>138</sup> Personal correspondence with Michael Smetanin, 12/3/11.

<sup>139</sup> In the context of this chapter, the term 'performers' refers to both classical and electric guitarists.

## 4.2 Interviewees

Twenty-three composers, thirteen composer-performers, twelve guitarists and a musicologist considered to be suitable interview candidates were selected through purposive sampling. Each composer had written at least one work for electric guitar and each performer had to have prior professional experience performing both solo and chamber contemporary art music repertoire on the electric guitar.<sup>140</sup> Composer-performers had both written for and performed on electric guitar in an art music setting. The leading contemporary art music musicologist has been at the forefront of contemporary music since the mid-1960s and has witnessed the electric guitar's emergence and increase in contemporary art music repertoire. Interviewees came from Europe including the UK and Ireland, America, Canada and Australia. These candidates, comprised of forty-four males and three females, whose ages ranged from twenty-nine to seventy-nine years old, represented a cross section of the, contemporary art music community. Their varying nationalities and ages ensured that the interview data would provide a broad range of views, experiences and attitudes regarding the electric guitar's role in art music. For a complete list of all the interviewees refer to Appendix A.

## 4.3 Interview structure

A semi-structured biographic/narrative approach was adopted for the interviews. Each interview was designed in a series of topic areas with prompt questions to elicit individuals' experiences with the electric guitar, including:

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<sup>140</sup> One exception to the composer criterion was the Australian, guitarist and composer, Phillip Houghton (b. 1954). Although Houghton has never composed a standard 'notated' work for electric guitar, his experience as an electric guitar 'art music' improviser makes him an authority on the instrument's idiosyncrasies and his observations on the instrument's status in art music were very insightful.

- Beliefs about the electric guitar;
- Their history with the electric guitar and popular music;
- Experiences with the instrument and inspiration behind composing or performing on electric guitar;
- Perceptions regarding how they feel the instrument is viewed by others in the art music community;
- Reflections of their experience with the instrument; and
- Beliefs on the future role of the electric guitar in art music.

Each interview began with the same question, “What comes to mind when you think of the electric guitar?” to draw out each interviewees’ immediate thoughts about the instrument. Interviews were conducted one-on-one and lasted anywhere between sixteen and ninety minutes. Interviews were conducted in person on Skype (twenty-six interviews), via email or mail (twelve interviews), in person (nine interviews) and one composer recorded his answers and emailed me the MP3 file. Skype interviews were recorded using Audacity on computer and in person interviews were recorded using a ZOOM H2 Handy Recorder. Interviews were transcribed later for analysis

#### **4.4 Analysis**

Qualitative content analysis was chosen to enable sufficient induction and interpretation of the data and comparisons were frequently made between the data. Interviewees’ responses were coded according to common themes, views, experiences, attitudes and comments. In order to establish a hierarchy of concepts<sup>141</sup>, responses were

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<sup>141</sup> Susan Coulson, "Getting 'Capital' in the Music World: Musicians' Learning Experiences and Working Lives," *British Journal of Music Education* 27, no. 3 (2010): 258.

grouped by composer or performer and also by birthplace (European<sup>142</sup> or non-European<sup>143</sup>) to illuminate the interviewees' shared views, attitudes and experiences. The reasoning behind grouping composers and performers according to their nationality was that the cultural practices and music education they received as a youth would most likely have impacted on:

- Their views of art making and aesthetics;
- Distinction between high and low culture (in terms of their responses/attitudes); and
- Interaction with various musical genres.

The categories are: non-European Performers, European Performers, non-European Composers and non-European Composers.

## **4.5 Analysis of Composer and Performer Categories**

### **4.5.1 Non-European Performers**

#### **4.5.1.1 Youth: Exposure to Popular Music and First Interaction with the Electric Guitar**

Non-European performers and composer-performers Steve Mackey (USA), Tim Brady (Canada), Michael Nicolella (USA), David Damm (USA), Daryl Buckley (Australia), Geoffrey Morris (Australia), Phillip Houghton (Australia), Philip Gaulty (USA), Marc Nimoy (USA) and James Moore (USA), Stephen O'Malley (USA), Carl Dewhurst (Australia), and Christopher Trapani (USA) recalled their first interaction with music was with rock and pop music. Composer-performer Michael Nicolella had

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<sup>142</sup> The term 'European' refers to all interviewees who were born and raised in continental Europe.

<sup>143</sup> The term 'non-European' refers to all interviewees who were not born and raised in continental Europe, therefore all composers and performers from the UK are categorised as 'non-European'.

an interaction with popular music and electric guitar which was typical of the majority of non-European performers. He stated, “I started playing electric guitar as a young kid, playing in rock bands, that was my first introduction to the electric guitar.”<sup>144</sup> Two artists who were frequently cited as influences on these interviewees were, The Beatles and Jimi Hendrix.

I guess the first thing that would probably jump into my mind would be The Beatles, that’s the history of the thing<sup>145</sup> - Tim Brady

These interviewees received a guitar (instrument) while in primary school or early-to-mid high school. These guitar models included nylon string classical guitars, steel string acoustic guitars and electric guitars. “I begged my parents for an electric guitar” stated American composer Steve Mackey, “so they went to Sears [American Department store] and bought me a Silvertone guitar and a Silvertone amplifier.”<sup>146</sup> Throughout their mid-teens the participants in this category were active members of at least one rock band, which included writing original material, but very often involved playing covers of songs by established electric guitar based rock artists such as The Beatles, Jimi Hendrix, The Rolling Stones, Deep Purple, Yes, Genesis and King Crimson.

I had a band in my garage with drums, bass, amps, keyboards and people would come over and jam at my house<sup>147</sup> - Steve Mackey

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<sup>144</sup> Personal correspondence with Michael Nicolella, 13/6/11.

<sup>145</sup> Personal correspondence with Tim Brady, 22/7/11.

<sup>146</sup> Personal correspondence with Steve Mackey, 2/8/11.

<sup>147</sup> Personal correspondence with Steve Mackey, 2/8/11.

Like many of my colleagues, I wanted to learn guitar so I could be in a rock band<sup>148</sup> - Marc Nimoy

Despite his classical musical education, composer-performer Rhys Chatham (USA) also experienced performing in rock bands though not until he was in his mid-20s.

After six weeks [of playing electric guitar] I got together with some other people. Nobody knew how to play their instrument so we were learning together and we were playing out [live gigs] within three months, I was playing in a band called The Gynaecologists.<sup>149</sup> - Rhys Chatham

American performer Seth Josel had a musical education which focused heavily on classical guitar and contemporary art music, but he still acquired some experience with the electric guitar and performing in a popular ensemble when he was a teenager.

I have to say I wasn't one of those garage band types. I had a little bit of experience with the instrument [electric guitar] when I was in my early teenage years but I had not really played in anything that you would call a legitimate rock band. I was reading music pretty early on so by the time I got the electric guitar I was dependent on reading charts. We had some fairly ambitious people [school friend musicians] when we were looking at stuff like early Chicago Transit Authority. I screwed around a little bit with Deep Purple and Grand Funk Railroad but when I was twelve or thirteen it came to a pretty abrupt stop

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<sup>148</sup> Personal correspondence with Marc Nimoy, 28/8/11.

<sup>149</sup> Personal correspondence with Rhys Chatham, 24/8/11.

and I kind of went back then to classical guitar and I entered the pre-college division at The Manhattan School of Music<sup>150</sup> – Seth Josel

#### **4.5.1.2 Tertiary Education and Classical Music Education**

By their mid to late teens performers such as Tim Brady, Michael Nicolella, Geoffrey Morris began to grow tired of playing rock and pop guitar and began experimenting with jazz, fusion, world music and improvised music. For Brady, his interest in jazz and fusion led to him discovering contemporary art music. However, Brady can be considered an exception to the other persons in this category as he never undertook any study on the classical guitar. For composer-performer David Dramm it was his loss of interest in jazz and fusion which led him to contemporary art music.

By the time I was sixteen or seventeen I was so sick of that sound, of the jazz fusion guitar sound that I would do almost anything to try and avoid it and it was that time that I was really discovering the great avant-garde scores and pieces of the 1950s and '60s and really seriously thinking about going and studying composition<sup>151</sup> – David Dramm

Performers such as Geoffrey Morris, Daryl Buckley and Michael Nicolella undertook private classical guitar lessons and by their late teens and early twenties furthered this study by enrolling in undergraduate music performance (classical guitar) programs. Morris' and Nicolella have since completed post-graduate studies in classical music. Steve Mackey (USA) took a music appreciation course while in his third year of college which exposed him to western art music for the first time.

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<sup>150</sup> Personal correspondence with Seth Josel, 27/7/11.

<sup>151</sup> Personal correspondence with David Dramm, 9/8/11.



I started out playing electric guitar in bands and it was only when I got into college, really my 3<sup>rd</sup> year of college I took a music appreciation course and for the first time heard classical music. I'd never even heard classical music until I was nineteen years old. In one short quarter of the course we heard Marchaut, Palestrina, Monteverdi, Mozart, late Beethoven string quartets, Stravinsky's ballets, Debussy's *Nocturnes* and all these fantastic pieces and I thought, "That's what I should be doing" so I went to the head of department and said, "I want to be a music major and I want to be a composer," and he asked me what instrument I played and I said, "I play the electric guitar," and he snickered and said, "Well you'll have to audition and sight read a few things," and I said, "Well I don't know how to read music," and he told me I should just give up but instead of giving up I went away and at that point I studied classical guitar for a few years. I figured that was a good way to learn to read music and I really got into it<sup>152</sup> – Steve Mackey

After the performers and composer-performers developed an interest in western classical music, and in the case of Mackey, Nicolella, Morris, Gaulty, Moore, Nimoy and Buckley, a serious attitude towards classical guitar study, a period of distance from the electric guitar began which in some cases lasted up to ten years. It is hard to ascertain whether this distance was either a conscious or subconscious decision; it appears that Mackey, Nicolella, Moore and Gaulty lost interest in the electric guitar as they become more serious about the classical guitar.

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<sup>152</sup> Personal correspondence with Steve Mackey, 2/8/11.

I then started playing classical guitar pretty seriously and I put the electric guitar aside for about a decade<sup>153</sup> – Michael Nicolella

I just sort of repressed that [electric guitar], put it in the background and the electric guitar thing didn't come out at all. I was really pursuing, fairly seriously, the classical guitar<sup>154</sup> – Steve Mackey

Taylor [Levine] and I came from similar backgrounds – we played rock when we were younger, then became classical guitarists and then found our way back to the electric guitar<sup>155</sup> – James Moore

I think everybody who has been in the group [Los Angeles Electric 8] at one point or another has played the electric guitar in popular music and then it's not until you get to college that you realise you can't just do that, you've got to learn the classical guitar<sup>156</sup> – Philip Gaulty

#### **4.5.1.3 Composing for Electric Guitar in an Art Music setting**

At some point, during graduate studies or their professional careers, these performers and composer-performers were approached by a composer or a contemporary music ensemble to see if they could play electric guitar in an upcoming concert. For example, Daryl Buckley was required to play electric guitar in the Elision Ensemble's performance of Liza Lim's *Garden of Earthly Desire* (1991). Geoffrey Morris first performed art music on the electric guitar when he too was approached by

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<sup>153</sup> Personal correspondence with Michael Nicolella, 13/6/11.

<sup>154</sup> Personal correspondence with Steve Mackey, 2/8/11.

<sup>155</sup> Personal correspondence with James Moore, 27/10/11.

<sup>156</sup> Personal correspondence with Philip Gaulty, 25/8/11.

the Elision Ensemble to perform a work by Volker Heyn. Michael Nicolella was approached by a composer who asked if he could perform a work written for ‘classical-electric guitar’. Seth Josel was a graduate student at Yale University when he was asked by the then composer in residence, Louis Andriessen, to perform electric guitar in a performance of Andriessen’s *De Stijl*. Steve Mackey is an exception to this as he was not approached by a composer to perform a work, but instead picked up his electric guitar and began improvising purely for enjoyment. It was through his performance and improvisational experience that he rediscovered his childhood love for the electric guitar:

It [playing electric guitar again] started with me improvising with some of my graduate students and my fellow composition faculty colleagues. I started improvising on the electric guitar with my new language of concert music and I’d sort of forgotten my blues licks which was good. I had to confront the electric guitar but it still felt the most comfortable in my hand. After not playing for nearly 10 years, starting to play again by improvising felt natural and that’s what led the way to me composing for it<sup>157</sup> – Steve Mackey

Philip Gaulty and other Los Angeles Electric 8 members, all played electric guitar and rock music as teens, but met while studying classical guitar at UCLA. Most of the members of L.A. Electric 8 played in the UCLA guitar ensemble but they later decided to take up fellow guitarist, Ben Harbord’s idea of starting an electric guitar ensemble so that they could perform a composition written by a friend for eight electric guitars. Although some of these interviewees may initially have been apprehensive

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<sup>157</sup> Personal correspondence with Steve Mackey, 2/8/11.

about playing electric guitar in a classical setting they agreed to do the performance/s. When talking about his first time performing at music on the electric guitar Seth Josel said, “I sort of gulped [when approached by Andriessen to perform *De Stijl*] and I said, ‘Louis, I haven’t touched the electric guitar in thirteen or fourteen years’ and he said ‘don’t worry about it’.”<sup>158</sup> These performers were approached by composers as there were no electric (rock/pop) guitarists who could read music well enough to follow a conductor and contemporary music score as well as no classical guitarists who could play electric guitar.

I put the electric guitar aside for about a decade and then it wasn’t until a composer was writing a piece for me and asked if I played electric guitar and I said, ‘Yeah I did in the past but I haven’t done it in quite some time’<sup>159</sup> -

Michael Nicolella

#### **4.5.1.4 Professional work as a Classical Electric Guitarist**

These performers’ debuts as niche, ‘classical electric guitarist’ lead to them being asked to play more contemporary art music on electric guitar as they were, in their city, the only electric guitarists who could read complex art music scores, follow a conductor and had chamber music skills/experience. For example, following Seth Josel’s successful performance of *De Stijl*, he was asked by Andriessen to play electric guitar in a series of performances of *De Materie*. Their ‘comeback’ classical-electric guitar performances sparked a renewed interest the instrument, inspiring these performers and composer-performers to embark on quests of commissioning and in

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<sup>158</sup> Personal correspondence with Seth Josel, 27/7/11.

<sup>159</sup> Personal correspondence with Michael Nicolella, 13/6/11.

some cases, composing art music works for electric guitar. Both Steve Mackey and Tim Brady began writing repertoire for the instrument and teaching composition students about the instrument. Daryl Buckley, James Moore, Geoffrey Morris, Michael Nicolella, Philip Gaulty, Marc Nimoy and Los Angeles Electric 8 all now perform concerts on both the classical guitar and electric guitar. It is ironic that for most of these composer-performers and performers, they may have considered their decision to focus on the classical guitar and classical music would take them away from the electric guitar, and for a period of time it did. However, it would be contemporary classical music which would ultimately reunite them with the electric guitar and rekindle their childhood love of the instrument.

I had time to think about playing again [after a period of non-playing] and it seemed to me that the instrument that I wanted to engage with as far as guitar was concerned was the electric, very, very much so. For a number of reasons: one because of the possibilities that it offered in terms of the repertoire and composers we were dealing with; another because it offered a new vehicle for learning, new knowledge; and another reason was that as I got older it seemed more gentle and more natural for my hands<sup>160</sup> - Daryl Buckley

#### **4.5.1.5 Summaries**

After hearing the narratives of the non-European performers, it is clear why most of these performers and composer-performers have, from a young age, had a very close bond with popular music. For the majority of non-European performers, the

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<sup>160</sup> Personal correspondence with Daryl Buckley, 30/8/11.

instrument was the vehicle which nurtured their youthful musical curiosities. This is typified by the performer-composer Steve Mackey:

That's music for me [referring to the electric guitar], that's my mother tongue and most of my early experiences with music are wrapped up with the electric guitar<sup>161</sup> - Steve Mackey

All the non-European performers who were interviewed for this dissertation were born after 1950 and have therefore been subject to the electric guitar and its role in Western popular culture through the medium of television, radio, records and print media. As a result of growing up surrounded by the electric guitar and the popular genres of music which the instrument helped create, these performers and composer-performers feel that the instrument has an innovative and exciting role to play in contemporary art music.

## **4.5.2 European Performers**

### **4.5.2.1 Youth: Classical Music Education and Exposure to Popular Music**

Belgian guitarists Tom Pauwels and Toon Callier both begin their classical music education at the age of eight and they both studied classical guitar at local music academies.

I played classical guitar from [the age of] eight, there's very good music education for children here in Belgium. Every village has a music school where

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<sup>161</sup> Personal correspondence with Steve Mackey, 2/8/11.

you can go after school, pick an instrument and learn to read. At that time it was not an option to learn electric guitar.<sup>162</sup> - Toon Callier

I started studying the classical guitar when I was eight in the music academies.<sup>163</sup> – Tom Pauwels

Italian guitarist Elena Casoli did not mention the age at which she began studying classical guitar. She only stated that she “grew up as a classical guitarist.”<sup>164</sup> The musical education and experiences of Dutch guitarist, Wiek Hijmans are similar to that of Tim Brady as Hijmans also never learned to play classical guitar. Hijmans father was a classical composer and music critic and as a child Hijmans studied orchestral percussion and played pop songs on an acoustic guitar. He elaborates:

I had lessons in classical percussion since I was eight years old and so it [guitar] was a second instrument to me. We started a rock band called the The Fab Four Band because we wanted to imitate The Beatles when we were 11. I knew three chords, and after a very short while I found I wanted to play electric guitar. I bought an imitation Gibson S.G. and an amplifier. I can't really say that I played classical guitar before starting to get to the electric guitar. I did play acoustic first but at a very early age I started playing electric<sup>165</sup> – Wiek Hijmans

During their childhood and early teenage years, these performers worked towards building the foundation for solid classical guitar technique as well as learning pieces from the classical guitar's standard repertoire. By high school, performers such

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<sup>162</sup> Personal correspondence with Toon Callier, 15/11/11.

<sup>163</sup> Personal correspondence with Tom Pauwels, 13/9/11.

<sup>164</sup> Personal correspondence with Elena Casoli, 12/9/11.

<sup>165</sup> Personal correspondence with Wiek Hijmans, 24/7/11.

as Tom Pauwels and Toon Callier became more interested in popular music, most often through friends. They both learned to play pop and rock songs and, for a period of time, played in pop and rock cover bands.

I learned blues from family members' records ... I started at thirteen or fourteen getting into blues and a bit of punk, the Sex Pistols I think I was very fond of them twenty-five years ago. I played in bands, I think that my first experience trying to set a band like a lot kids do which is something that I stopped doing when I entered [the] conservatory<sup>166</sup> - Tom Pauwels

The Italian performer, Elana Casoli, is an exception to this as she never played in a rock band.

I grew up as a classical guitarist ... I had no direct experience with rock or jazz, of course I had friends that were playing electric guitar and through them I had some possibility to touch the instrument, to put my hands on the instrument and to listen to the music that was not there in the classical music school<sup>167</sup> - Elana Casoli

#### **4.5.2.2 Tertiary Music Education and First Encounter with the Electric Guitar in an Art Music Setting**

These performers all undertook undergraduate music performance studies at European conservatoriums. Pauwels, Callier and Casoli all studied classical guitar while Wiek Hijmans (Netherlands) studied contemporary improvisation. All of these players

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<sup>166</sup> Personal correspondence with Tom Pauwels, 13/9/11.

<sup>167</sup> Personal correspondence with Elena Casoli, 12/9/11.



(including Hijmans) were, as undergraduate students, passionate about contemporary art music. This passion led them to collaborate with fellow student composers on works for classical guitar. Tom Pauwels established a contemporary music ensemble with five fellow performance students. Toon Callier, founder of Belgium's electric guitar quartet Ensemble Zwerm, is representative of the younger generation of European performers (born after 1980). He acknowledges that a major inspiration behind his enthusiasm for contemporary art music, as well the idea of performing art music on the electric guitar, came from his teacher, Tom Pauwels. It was while studying at Royal Conservatory of Antwerp that Callier also met three likeminded guitarists who are now full-time members of ensemble Zwerm. Callier and his colleagues studied and performed classical electric guitar repertoire while under the tutelage of Pauwels. As demand for Pauwels' electric guitarist abilities increased, he could not take on all the professional work which was offered to him. As a result, Callier and his colleagues began working professionally as classical electric guitarists.

When I was eighteen years old I went to the conservatory in Antwerp for classical guitar [studies] ... . During [my time at the] conservatory I started to get more and more interested in contemporary music. Some friends and I [the other guys from Zwerm] met at the conservatory and we shared this interest in contemporary music. We met our teacher Tom Pauwels and we discovered that he was completely into this contemporary electric guitar music so it was a whole new world that opened for us. We became students of Tom and in that context

studied pieces like TV Trash Trance [2003] and organised concerts ourselves<sup>168</sup>  
- Toon Callier

Performers such as Elana Casoli and Tom Pauwels, both born before 1980, were approached by composers who were interested in writing for the electric guitar. These performers were selected because of their reading abilities, knowledge of contemporary art music repertoire, experience as chamber musicians and status as accomplished classical guitarists. Casoli elaborates:

When I was seventeen, I started to play contemporary music with classical guitar so I started to have more and more contact with composers, mainly young composers who were starting. Later contact with composers [it became clear] that they would like to compose for electric guitar but they had no possibility to have a collaboration with an electric guitar because if they [electric guitarists] play rock [music] they were not really interested in playing music by other composers and mostly they were not able to read complex written scores<sup>169</sup> -  
Elana Casoli

#### **4.5.2.3 Professional Work as a Classical Electric Guitarist**

The debuts of Pauwels, Calier and Casoli as niche, ‘classical electric guitarists’ led to them being asked to play more contemporary art music on electric guitar as they were, in their city, the only accomplished classical guitarists who could play electric guitar. Pauwels and Callier began to practise basic electric guitar technique (playing

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<sup>168</sup> Personal correspondence with Toon Callier, 15/11/11.

<sup>169</sup> Personal correspondence with Elena Casoli, 12/9/11.

with a plectrum) so as to help execute art music passages that may be better suited to plectrum technique. Since much of the appeal of the electric guitar, to art music composers, comes from the textural and timbral effects associated with the instrument, these players began to familiarise themselves with effects pedals, looping stations, amplifiers, electric guitar models, string types and gauges. They became, and still are, ambassadors for the electric guitar in art music who commission works from composers and promote the instrument at festivals and concerts in both a solo and chamber setting.

From the moment we [Ensemble Zwerm] started, we tried to play electric guitar like an electric guitarist would play – with a plectrum. Of course sometimes it's just much easier with fingers. We all had to learn that [how to play with a pick]. Still today we have to practise with a pick because we really aren't the best in that area. Rock guitarists are much better than us with electric guitar technique<sup>170</sup> - Toon Callier

Currently, these players juggle performing classical guitar repertoire and classical electric guitar repertoire. Depending on commissions, festival dates and engagements with new music ensembles, they may be focused entirely on the electric guitar for a whole season. In the case of Callier and his Ensemble Zwern colleagues, the majority of their professional performance engagements are on the electric guitar.

So we [Ensemble Zwerm] started to play electric guitar and now we are in the situation where the classical guitar is something that we play sometimes – it's mainly electric guitar<sup>171</sup> - Toon Callier

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<sup>170</sup> Personal correspondence with Toon Callier, 15/11/11.

<sup>171</sup> Personal correspondence with Toon Callier, 15/11/11.

#### 4.5.2.4 Summaries

The most significant difference between the European and non-European performers and composer-performers is the origin of their musical education. The majority of non-European performers and composer-performers were initially drawn to popular music and thus had their first musical experiences playing or listening to popular music genres. In contrast the majority of European performers began learning classical guitar at local music academies, and although they most likely heard popular music on the television or radio, it would not be until their early teenage years when they would begin to have firsthand experience with popular music genres. Most of these European performers just like their non-European counterparts experimented with the electric guitar and popular music during the early teenage years but for the European performers it was viewed as a teenage phase which they would outgrow – it was not their musical roots.

Since leaving the conservatory or graduate school, both the European and non-European performers (excluding Tim Brady, Rhys Chatham and Wiek Hjmans) perform contemporary art music and standard classical repertoire on both classical guitar and electric guitar. However, they have approached these roles from different angles. Non-European performers began with the electric guitar and popular music only to renounce it to study classical guitar and in some cases, classical composition. This contact with classical music was the catalyst that led to them to rediscover the electric guitar later in their lives, and to contemplate the instrument's potential in contemporary art music. European performers began learning classical guitar and classical music theory, had a brief period of experimentation with the electric guitar as teenagers, returned their focus to the classical guitar (for undergraduate studies), became exposed to contemporary

music and were confronted with the prospect of performing contemporary music on the electric guitar. This research has shown that there appears to be two distinct groups of professional contemporary electric guitarists, each representing the two main paths leading guitarists to perform contemporary art music on the electric guitar. Perhaps the only way to establish a standardised method for learning and performing art music on the electric guitar will come through creating courses at conservatoriums and music academies which allow students to study contemporary art music on the electric guitar.

### **4.5.3 Non-European Composers**

#### **4.5.3.1 Youth: Exposure to Popular Music and First Interaction with the Electric Guitar**

The composers in this category are not professional guitarists although some may play guitar. The only interviewees in this group to specifically comment on their initial musical education were Michael Smetanin (Australia) and Richard Barrett (UK), both of whom had completely different experiences. Smetanin began formal classical piano studies at the age of seven and Barrett learned to play the electric guitar as a youth (he did not specify age).

My musical education followed a fairly standard path, I had regular piano lesson from the age of seven but as every kid did I became more aware of pop music<sup>172</sup>  
– Michael Smetanin

The electric guitar was the first instrument I learned to play<sup>173</sup> – Richard Barrett

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<sup>172</sup> Personal correspondence with Michael Smetanin, 12/3/11.

<sup>173</sup> Personal correspondence with Richard Barrett, 5/6/11.

David Lang recalled being impressed at the age of nine when he heard twentieth century Russian art music for the first time.

I heard a piece by Shostakovich when I was nine and it knocked me out<sup>174</sup> –

David Lang

From a young age these participants were exposed to pop, rock and jazz music through the mediums of television, radio, records and print media. These composers, such as Michael Gordon (USA), David Lang (USA), Gavin Bryars (UK), Michael Smetanin (Australia), Lois V Vierk (USA), and Derek Bermel (USA) all developed a love of popular music genres which did not affect their ability to study or appreciate classical music.

I always loved the sound [of the electric guitar], especially the sound of distorted guitar, power chords, heavy metal guitar, guitar with effects on it. When I was a kid, I listened to Led Zeppelin or Cream<sup>175</sup> - Michael Gordon

I saw The Beatles play on the Ed Sullivan show and I immediately wanted to play guitar<sup>176</sup> – David Lang

Several of these composers such as Michael Gordon, David Lang and Michael Smetanin acquired guitars as youths in order to learn popular tunes of the time. While in his teens, Gavin Bryars studied classical guitar for three years. During their teenage years, Gordon and Lang both had experience playing in pop bands either on guitar or piano and this experience proved to be very valuable when they later came to formally

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<sup>174</sup> Personal correspondence with David Lang, 30/1/12.

<sup>175</sup> Personal correspondence with Michael Gordon, 1/11/11.

<sup>176</sup> Personal correspondence with David Lang, 30/1/12.

compose for the electric guitar. These composers also become familiar with common electric guitar tones and equipment. This is also the time when they begin to become serious about classical music.

I started really getting into classical music when I was a teenager. I had played in bands when I was at music school and it just never made any sense to separate the guitar out as an instrument you wouldn't use in composition, it seemed like a strange thing [to exclude the instrument]<sup>177</sup> - Michael Gordon

When I was at school as I teenager I had classical guitar lessons for about 3 years<sup>178</sup> – Gavin Bryars

#### **4.5.3.2 Tertiary Musical Education: Composing for Electric Guitar and the search for Musically Literate Electric Guitarists**

Once these composers finished high school they undertook compositional studies at a university or conservatorium. Even though composers such as Michael Smetanin had received formal classical music educations from childhood they did not feel a need to distance themselves from popular music or the electric guitar in the way that the non-European performers had so done. In fact composers such as Smetanin and Derek Bermel were very interested in 1970s progressive rock.

The 1970s was the real heyday of experimental rock music. A lot of that did actually reach more people than quirky stuff does today even though you now have the internet. They [progressive rock bands such as Hawkwind, Yes, King Crimson, PFM, Amon Düül II and Ebehart Scherner Band] were trying to

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<sup>177</sup> Personal correspondence with Michael Gordon, 1/11/11.

<sup>178</sup> Personal correspondence with Gavin Bryars, 9/6/11.

compose more than they were actually trying to write songs. They were doing through composed songs. Most of the Yes albums were through composed like ‘Tales From a Topographic Ocean’ was a four side vinyl album and there was no repetition, no song, it was quite interesting.<sup>179</sup> – Michael Smetanin

At some point during their graduate studies (or shortly afterwards) they included the electric guitar in a chamber work they were writing and were suddenly faced with the dilemma of having to find a guitarist who could competently play the instrument, was able to read complex art music scores and follow a conductor.

When I started that group [Michael Gordon Philharmonic] there just weren’t guitar players who could read music and play and electric guitar and play in a chamber group. There were guitar players who could read music but they played classical guitar; they had electric guitars but they didn’t know how to make those them sound like electric guitars. The electric guitar players didn’t know how to read music and if you found someone who knew how to do both things, they had no idea of what to play what we think of as chamber music. Even if everything is amplified you still have to play with other people in a more delicate way then if you’re playing in a band<sup>180</sup> - Michael Gordon

After a period of searching for an electric guitarist who could read music as well as possessing chamber music skills, these composers found such a player, usually leading to a special professional relationship. Each time the composers wrote for electric guitar, they wrote with a specific electric guitarist in mind, workshoping their

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<sup>179</sup> Personal correspondence with Michael Smetanin, 12/3/11.

<sup>180</sup> Personal correspondence with Michael Gordon, 1/11/11.



sketches with that player. An example of this relationship in America is between the electric guitarist Mark Stewart (from Bang On A Can All Stars) and the composers Michael Gordon and David Lang. Another example is the professional relationship between composer Lois V Vierk and electric guitarist Dave Seidel. In the UK the composer Gavin Bryars and classical/electric guitarist James Woodrow have a similar professional relationship. In Australia, composer Brett Dean has often collaborated with the guitarist Leonard Grigoryan. Due to the success of previous compositions which featured the electric guitar and the fruitfulness of the collaborative partnerships with certain electric guitarists, these composers have since written for the instrument several times.

#### **4.5.3.3 Reflections: Common Experiences between Non-European Composers and Non-European performers**

Non-European performers and composers are similar as both groups were influenced by popular music genres from a young age. Of the non-European composers who were interviewed in this thesis, all were happy for popular music and art music to coexist and many admitted to being very fond of certain popular music genres and artists. This appears to reflect upon their upbringing in English speaking Western countries that were heavily influenced by American popular culture. The German composer Carl Bettendorf, who has lived and worked in New York since 2001, articulated the difference between the upbringing of non-European and European composers and how, in his view, that affected their compositional aesthetic and their attitudes towards the electric guitar:

Here [in the USA], I'd say it's [composing for electric guitar] a completely normal thing by now. In the USA there's much more of a background of people having played in rock bands when they were young, it's very interesting. Something that I noticed very early on when I came here was the difference between the upbringing of the typical young composer [comparing Europe and America]. In the USA, you could say that ninety percent of composers used to play in a garage band and then entered new music from the perspective of a rock musician and they were actually introduced to new music through people who did early crossovers such as Frank Zappa or Glenn Branca. That is why these names are much more common. All my [American] friends, even when they are classical trained, played jazz too - so rock and jazz bands are people's backgrounds. Whereas European composers, and I'm one of them, have this typical bourgeois upbringing: you have a symphony subscription, this is how I was brought up. The instruments that you played were not garage band instruments but the typical classical instruments: recorder in preschool then, piano, violin, cello. So I think for a European composer it's [electric guitar] more of an exotic instrument but here [in the USA] people play themselves or they use to play, it's normal<sup>181</sup> - Carl Bettendorf

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<sup>181</sup> Personal correspondence with Carl Bettendorf, 26/6/11.

## 4.5.4 European Composers

### 4.5.4.1 Youth: Classical Musical Education and Interaction with Popular Music

Composers such as Georges Lentz (Luxembourg) and Carl Bettendorf came from musical families in which family members were either amateur musicians or avid music enthusiasts (often classical and jazz genres). As a result, these composers were exposed to western classical music from a young age and began their formal musical education at the ages of five-seven, which most often constituted piano, violin or cello lessons as well as aural and theory training. In the cases of Lentz and Malin Bång (Sweden), they both studied violin and piano.

My earliest musical influences were, Bach and things like that – I was listening to the Christmas Oratorio when I was three years old. Bach was my first love and then I went chronologically, Handel, Mozart, Schubert. I didn't appreciate any twentieth century [music] until I was about fifteen or sixteen, it came relatively late<sup>182</sup> - Georges Lentz

I am a classical trained musician, I started with violin and piano and started to compose a few years later<sup>183</sup> – Malin Bång

The majority of European composers who were interviewed for this research project stated that they developed an active interest in popular music during their teenage years which in the cases of Karlheinz Essl (Austria), Moritz Eggert (Germany), Erkki-Sven Tüür (Estonia), Peter Ablinger (Austria), Anthony Fiumara (Netherlands)

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<sup>182</sup> Personal correspondence with Georges Lentz, 16/2/11.

<sup>183</sup> Personal correspondence with Malin Bång, 30/8/11.

and Giorio Magnanensi (Italy) led to them learning how to play a bit of guitar or joining electric guitar based pop bands, often as keyboard players. Composers such as Louis Andriessen (Netherlands), Jean-Claude Eloy (France) and Volker Heyn (Germany), all of whom were born in the late 1930s, mentioned that they developed an enthusiasm for popular music when they first encountered it in their twenties and thirties. This is contrasted with the teenage tastes and experiences of Georges Lentz, Malin Bång, and Carl Bettendorf, all of whom had no direct contact with popular music or the electric guitar, and admitted that they felt either ambivalence or disdain towards the instrument and popular genres of music.

When I grew up, I can't explain it ... it [the electric guitar] was just an ugly, dirty, horrible, whining, vulgar sound ... I just couldn't stand it. It was so far from what I knew and loved. There was a rawness to it which I saw as a negative thing<sup>184</sup> - Georges Lentz

Lentz's views towards the electric guitar as a youth and his interaction with popular music are drastically different to the views and experiences of Dutch composer, Anthony Fiumara:

I bought my own electric guitar when I was fourteen ... . I played in rock bands in my hometown in my high school years<sup>185</sup> - Anthony Fiumara

Despite there being only three years difference in age between Lentz and Fiumara, and only 400 kilometres between where they both grew up, they could not have more polarised views towards and experiences of popular music and the electric

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<sup>184</sup> Personal correspondence with Georges Lentz, 6/2/11.

<sup>185</sup> Personal correspondence with Anthony Fiumara, 16/11/11.

guitar. These two composers highlight the divide in views and interaction with the electric guitar and popular music witnessed amongst European composers. As both individuals grew up in Western Europe where the electric guitar was present throughout their lifetimes, it could be that their interaction or non-interaction with the electric guitar and popular music had more to do with the musical and cultural tastes of their family and close friends.

Occasionally during but usually after completing postgraduate studies, these composers (see following list) were faced with the prospect of writing for the electric guitar. For composers such as Ablinger, Tüür and Bång, this came as part of a commission. In the cases of Lentz, Eggert, Fiumara and Essl, it was a personal decision to write for the instrument. For Eggert, Tüür and Essl it was not daunting composing for the electric guitar as they could draw on their own personal experience of playing the instrument or working in a rock band with electric guitarists.

I composed a lot for the [rock] band [high school band], some of the people could read music so I started writing out solos for guitar and for electric bass, I was already composing back then [for electric guitar]. The first piece [of art music] [in which] I used electric guitar was a chamber opera *Home Sweet Home* [1991] ... that was a personal decision, nobody said, ‘please use electric guitar’<sup>186</sup> - Moritz Eggert

When I was a teenager I played in a rock band and I played electric guitar. At the same time I tried to learn classical guitar ... . I never consulted the guitar players [about how to write for electric guitar]. It was not necessary for me. I’m

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<sup>186</sup> Personal correspondence with Moritz Eggert, 6/11/11.

quite familiar with all those [electric guitar] tricks and I try to find my own tricks. In fact I explained to [electric guitarists] them how I would like to have it played.<sup>187</sup> – Karlheinz Essl

I just wrote it [*Achitectonics V* (1991)] and sent it out [to electric US guitarist John Tamburello] because I had so much experience with different guitar players [and electric guitar techniques] by then. I just used all this stuff [experiences with the guitar]<sup>188</sup> – Erkki-Sven Tüür

However, for Lentz, Bång, and Bettendorf their lack of prior experience with such a ‘foreign’ instrument necessitated collaboration with an electric guitarist.

It’s [electric guitar] one of the instruments that is hard to know about, without practising or without actually playing it. It’s hard! ... . I’ve written once for electric guitar and twice with acoustic guitar and I had to work with guys [guitarists] to check notation, it was a very unique way of treating an instrument<sup>189</sup> - Carl Bettendorf

Composers such as Lentz, Bång, and Bettendorf, who had not grown up listening to popular music or playing in a rock band, had to become acquainted with the electric guitar’s idiosyncrasies, performances techniques and popular music genres in order to successfully write for the instrument. Once these composers found an electric guitarist who could read music, an educative process then began in which the guitarist showed the composer the technical aspects of the instrument ranging from standard and

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<sup>187</sup> Personal correspondence with Karlheinz Essl, 9/8/11.

<sup>188</sup> Personal correspondence with Erkki-Sven Tüür, 4/11/11.

<sup>189</sup> Personal correspondence with Carl Bettendorf, 26/6/11.

extended techniques through to equipment such as amplifiers and effect pedals (for more elaboration on this type of educative collaboration see Chapters 4 and 5).

There were many things with the electric guitar that I just had no idea about ... . I find, looking back, it was such an exciting time [collaborating with Zane Banks on *Ingwe*], I learned something new every time we got together. We were experimenting together to get sounds. I had no idea about it, apart from the six strings and all that. It was so exciting learning about all those different sounds<sup>190</sup>

- Georges Lentz

Just as was seen with the non-European composers, once the European composers found classical electric guitarists who could read complex musical scores, possessed chamber music skills and could follow a conductor, the composers tended to collaborate closely with these players during the compositional process right through to the work's premiere. Some examples of these composer and performer collaborative partnerships are as follows: Peter Ablinger and Seth Josel, Fausto Romitelli (Italy) and Tom Pauwels, Giorgio Magnanensi and Elana Casoli, Georges Lentz and Zane Banks (Australia), Anthony Fiumara and Wiek Hijmans/Aart Strootman (Netherlands), Maarten Altena and Wiek Hijmans (Netherlands), Carl Bettendorf and Kobe Van Cauwenberghe (Belgium) and Malin Bång and Krok Ensemble (Swedish electric guitar quartet).

#### **4.5.4.2 The Divide between Popular Music and Non-Popular Music Fans**

The European composer category is different from the other categories as two distinct camps emerge: first, composers who experimented with popular music as

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<sup>190</sup> Personal correspondence with Georges Lentz, 6/2/11.

teenagers and are still fond of popular music genres, and second, composers who were not interested in popular music and who had had no experience performing popular music genres. The latter's decision to write for the electric guitar marked a departure from their usual instrumentation and sound aesthetic. Their choice to write for electric guitar may have been inspired by exploring new sound worlds, textures and timbres in their compositions or it may have been as a result of a commission. In any case, both scenarios led to them to collaborate, in some capacity, with electric guitarists in order to learn about the instrument and the genres with which it plays an important role.

This suggests that the reason for this divide between participants has to do with the social environments of each composer. Europe is comprised of countries (as discussed in Chapter 3) with distinct and strong cultural traditions. However, since the end of World War I, despite America's quick withdrawal from Europe, American popular culture has had an ever-increasing presence in European daily life.<sup>191</sup> In his book, *The Americanization of Europe*, Alexander Stephan writes, "In a sharp reversal of its withdrawal from Europe after 1918, after the end of World War II Washington employed available tools of public and cultural diplomacy to influence the hearts and minds of Europeans,"<sup>192</sup> thus helping the spread American popular culture throughout Western Europe. It may be said that there is a bigger division in Europe between high art and low art and some Europeans may dismiss American popular culture as consisting of mass produced low art. The American guitarist Seth Josel, who has lived in Western Europe since the mid-1980s has observed:

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<sup>191</sup> Stephan, *The Americanization of Europe: Culture, Diplomacy, and Anti-Americanism after 1945*, 1–2.

<sup>192</sup> *Ibid.*, 1.



Europe has this very funny thing with commercial music and classical music and they have this funny divide and a lot of the composers who I know, they've had pretty much nil experience with commercial music... It has to do with class and the whole society structure, a little bit of the refusal to acknowledge the vernacular – snobbiness. I see that a lot of that is broken down in the younger generations and I see much more potential there to interest composers [in writing for the electric guitar]<sup>193</sup> - Seth Josel

For composers who were brought up in families or social environments which had little to do with American popular culture, it is understandable why they did not write for the electric guitar until later in their career. As for composers such as Moritz Eggert, Karlheinz Essl, Peter Ablinger and Anthony Fiumara it appears that either a family member or school friends introduced them to popular music and this introduction was not met with any resistance by either themselves or their family. Even though the European composer category is divided, most of the composers interviewed for this research project share several commonalities with non-European composers. Lentz, Bång and Bettendorf may have once been representative of the majority of European composers. However, with the ubiquity of modern technology it is very likely that composers of the 'i-generation' will be familiar with the sound of the electric guitar.

#### **4.6 Common Views about the Electric Guitar's Role in Art Music and Recommendations for Future Composers and Performers**

Over the course of the interviewing process, numerous interviewees made the same comments about the status of the electric guitar in contemporary art music:

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<sup>193</sup> Personal correspondence with Seth Josel on 27/7/11.

recommendations on how to successfully write for the instrument; issues regarding how to get the instrument to effectively blend into a classical ensemble; their experience of writing for the electric guitar; and recommendations about successful collaborative models and improvements on behalf of composers and performers. This section will list the main points which were raised so as to inform both composers and performers how their counterparts feel about the instrument, as well as list the main suggestions composers and performers have regarding what their contemporaries and counterparts could do to make the collaborative and performance process easier. These points will be listed into two categories: ‘Views, perceptions and attitudes towards the electric guitar and experience with the electric guitar’ and ‘Recommendations for Composers’. Composers’ and performers’ comments will not be separated in this section but each anecdote used will mention if it was sourced from a composer or performer, and the nationality will also be given.

## **4.7 Views, Perceptions and Attitudes towards the Electric Guitar and Experience with the Electric Guitar**

### **4.7.1 Influential Popular Artists**

Practically every interviewee mentioned at least one rock or jazz electric guitarist as well as bands (popular genres) who they admired and found influential. The two most commonly mentioned artists were Jimi Hendrix and The Beatles. Other bands and artists frequently mentioned were The Rolling Stones, Cream (Eric Clapton), Led Zeppelin (Jimmy Page), King Crimson, Genesis, Frank Zappa, Jeff Beck, Chuck Berry, Eddie Van Halen, Carlos Santana, Robert Fripp, Charlie Christian, B.B. King, Tal

Farlow, Wes Montgomery, John McLaughlin, Pat Metheny, Joe Pass, Jim Hall, Bill Frisell and Derek Bailey. For any composers interested in acquainting themselves with the sound and capabilities of the electric guitar, this comprehensive list of players would be the best place to start their education.

#### **4.7.2 Common Views and Perceptions of the Electric Guitar and its Role in Art Music**

Composers Steve Mackey (USA), Christian Wolff (USA), Rhys Chatham (USA), David Dramm (USA), Derek Bermel (USA) and Phillip Houghton (Australia) all compared the electric guitar's status, its role in art music and its lack of 'classical' repertoire to the same issues relevant to the saxophone. Both instruments have been used in art music for over half a century but arguably both remain on the fringe of art music.

When I think of the electric guitar I think of it being similar to the saxophone; this is because the saxophone was invented after the classical orchestra was settled, it's a bit of an outsider<sup>194</sup> - Phillip Houghton (Australia)

I hope that in twenty to twenty-five years the electric guitar by then will be as normal as any other instrument in new music. Now of course it will never be in the orchestra because the great orchestral repertoire doesn't have electric guitar. The saxophone suffers like that, the electric guitar will always suffer like that.<sup>195</sup>

– Derek Bermel (USA)

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<sup>194</sup> Personal correspondence with Phillip Houghton on 25/1/11.

<sup>195</sup> Personal correspondence with Derek Bermel, 16/12/11.

Rhys Chatham made the comment that the electric guitar was similar to the saxophone in that, both instruments were easier to initially learn than standard orchestral instruments such as violin or cello. Chatham believes that this initial ease and approachability are part of the instrument's charm and probably account for why they are both, outside of the classical world, hugely popular instruments for students to learn. Steve Mackey, Tim Brady and Derek Bermel also mentioned how, despite the electric guitar's increasing popularity in contemporary art music, it will never replace the violin or cello nor will it become a central instrument in mainstream symphonic classical music. On occasions these orchestras are expanded to accommodate new and unusual instruments. However, the reality is that the bulk of music performed by symphony orchestras consists of repertoire written well before the invention of the electric guitar.

It's [electric guitar] never going to be to be, I don't think, like the violin or central to concert music. I think it's going to be like the saxophone. You can go get a degree majoring in classical saxophone but it's still a little bit on the fringes and [electric] guitar always be a little but on the fringes because of the electricity issues, because of the cultural baggage and because there are some purists<sup>196</sup> – Steve Mackey

Gavin Bryars, Anthony Fuimara, Steve Mackey and Moritz Eggert all compared composing for the electric guitar to composing for the pipe organ, specifically in that there are many variables on both instruments. Due to the ever-increasing availability of electric guitar equipment and effects, as well as the variety of pipe organ registrations, Bryars et al suggested that composers should work with a specific performer and write

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<sup>196</sup> Personal correspondence with Steve Mackey, 2/8/11.

for a certain equipment configuration. It was also mentioned that a work written for one performer/equipment configuration, be it for electric guitar or pipe organ, when performed by another performer/equipment configuration, may sound quite different.

It's [electric guitar] almost like writing for the church organ where you write for an organ but you write for a particular player and a particular place and then it's played somewhere else and you find that it [the new organ] doesn't have that registration ... an organist will always offer you different things [technical and musical possibilities] and I find that guitarists are the same<sup>197</sup> - Gavin Bryars (UK)

Louis Andriessen, Brett Dean, Erkki-Sven Tüür, Tom Pauwells, Michael Smetanin, Elana Casoli, Derek Bermel and Philip Graulty expressed similar sentiments in favour of the electric guitar stating that it was 'relevant' (to this age), 'democratic', 'of our time', 'not associated with elite music', 'cheap' [easy to afford], 'popular', 'easy to play', 'ubiquitous', 'versatile', 'economic', and 'familiar to the general populace'.

It's [electric guitar] the most popular instrument in the whole world<sup>198</sup> - Louis Andriessen

These interviewees felt that the above traits were an asset to the instrument and may be crucial in involving younger generations and the general populace in contemporary art music. Elana Casoli stated:

The electric guitar [should be proposed] to festival artistic directors [so] that they know it's an important instrument and [that] they can attract a younger

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<sup>197</sup> Personal correspondence with Gavin Bryars, 6/9/11.

<sup>198</sup> Personal correspondence with Louis Andriessen, 15/8/11.

public [to concerts]. I mean we need it, otherwise there will be an older and older public [attending] contemporary music, and that's not good<sup>199</sup> – Elana Casoli

Tom Pauwels commented on the phenomenon of YouTube tutorials and how these free 'lessons-on-demand' may be beneficial for both people wishing to learn electric guitar as well as for composers who are looking for a basic introduction to the instrument.

It's [electric guitar] a democratic instrument, it's available to a lot of people, of course it's cheap [when] compared to a piano or violin and it's not connected with an elite music/elite education. You can learn it on the internet, there are lots of YouTube tutorials, there's so much material available so anybody can play it<sup>200</sup> - Tom Pauwels (Belgium)

Regarding the electric guitar's relevance in popular culture and subsequently contemporary art music, Derek Bermel stated:

It's [electric guitar] become something that people [composers] have to use because it is of our time, everyone needs to express themselves within their own generation and within the context of their life and environment<sup>201</sup> – Derek Bermel

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<sup>199</sup> Personal correspondence with Elana Casoli, 12/10/11.

<sup>200</sup> Personal correspondence with Tom Pauwels, 13/9/11.

<sup>201</sup> Personal correspondence with Derek Bermel, 16/12/11.

### 4.7.3 Dilemma of finding Musically Literate Electric Guitarists

As was touched upon in the European and non-European composer categories, composers frequently lamented at how hard it was in the past, and still can be, to find skilled electric guitarists who can read complex art music scores fluently, competently follow a conductor and confidently perform with a classical ensemble. Throughout the interview process, performers also mentioned this was a factor which was holding the instrument back in the art music world, especially in chamber music. There is a new generation of guitarists including Bryce Dessner (USA), Toon Callier, Yaron Deutsch (Israel) and Aart Strootman (Netherlands) who are all very proficient on both classical and electric guitars. However interviewees such as Seth Josel (USA), Gavin Bryars, Tom Pauwels and Phillip Houghton stated that in order to see increased numbers of proficient performers emerge in the future, the classical electric guitar needed to be ‘accepted’ and included in the instrumental programs offered at conservatoriums and music academies. Josel believes that electric guitarists are ‘coming to new music late’ when compared to other instruments. Including the classical electric guitar in instrumental programs at conservatoriums and music academies would, amongst other things, expose electric guitarists to contemporary art music at an early stage, improve electric guitarists’ reading abilities and give them much needed chamber music experience.

I think the [classical] electric guitar as an option [to study] should become available and more widely used in conservatories. When electric guitar is more available educationally I think that will help a lot<sup>202</sup> - Gavin Bryars

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<sup>202</sup> Personal correspondence with Gavin Bryars on 6/9/11.

#### 4.7.4 Negative Stereotypes and Common Misconceptions about the Electric Guitar

All of the aforementioned interviewees commented on common classical musicians perception's that the electric guitar is always a loud, distorted, single-note or chordal instrument. Interviewees also commented on the electric guitar's image due to its numerous rock music clichés. "The classic rock trope or rock image [comes to mind]," says Australian composer and radio broadcaster Julian Day, "The big black shaggy mullet [hair style] and the phallic-like wielding of the axe [guitar]." Australian composer Brett Dean also said that after growing up in the 1970s where stadium rock music was ubiquitous, he views the electric guitar as "a sexual symbol and a symbol of power".

Louis Andriessen commented that, "It [electric guitar] still has still a kind of a vulgar image in the official classical music scene."<sup>203</sup> Steve Mackey has experienced discrimination from a certain conductor simply because Mackey is an electric guitarist who writes for the instrument (see quote in Chapter 1). In light of these stereotypical perceptions of the instrument, Karlheinz Essl mentioned that he is not fond of the 'extra-musical messages' the electric guitar sends to an audience in an art music context. Although Essl was the only interviewee to explicitly articulate his dislike for the stereotypical imagery and themes associated with the electric guitar.

What I don't like about the electric guitar is its appearance, it transports a lot of extra musical messages, it's very male oriented, it's very aggressive,

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<sup>203</sup> Personal correspondence with Louis Andriessen, 15/8/11.



[associated] with male sexuality which I don't like in this context [art music]<sup>204</sup> -

Karlheinz Essl (Austria)

Most performers, and some composers were frustrated by these negative stereotypes and they appeared to be on a personal quest to show composers, orchestral musicians and audiences, that as well as having the capability for extreme volume, the electric guitar can be an incredibly soft and delicate instrument, capable of achieving contrapuntal complexity – as composer Julian Day stated, “It’s [electric guitar] an instrument that’s not only capable of the rock thing but also a lot of subtle nuance and timbral variety.”<sup>205</sup> Performers and composers also mentioned that, when needed, the electric guitar can add great textural density, to a composition and ensemble, especially with effects pedals.

The really big advantage of the electric guitar is that it is an incredible timbral chameleon. With a few foot pedals you can have more timbral and dynamic variation than the entire orchestra<sup>206</sup> - Tim Brady

Irish hexaphonic guitarist and sound-artist, Enda Bates, described the electric guitar as being an ‘inherently electro-acoustic instrument’ perfectly suitable for sound art and spatial music. Australian guitarist and ensemble director, Daryl Buckley, made an interesting comment that it is not so much the volume of the instrument but the ‘presence of distortion which is the critical factor’ in classical musicians’ perceptions that the electric guitar is too loud. He also noted that classical musicians often hear distortion as being louder than a clean electric guitar sound and that if, at an orchestral

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<sup>204</sup> Personal correspondence with Karlheinz Essl, 9/8/11.

<sup>205</sup> Personal correspondence with Julian Day, 21/12/11.

<sup>206</sup> Personal correspondence with Tim Brady, 22/7/11.

rehearsal, a classical musician sees a distortion pedal in a guitarist's effects pedal configuration or anything that can generate feedback, it immediately raises concern about the potential volume.

[Classical musicians think the electric guitar is] Too loud! They love the classical guitar because they can't hear it. It's interesting, what I've observed is even with very classical musicians, it's usually not loudness [of the electric guitar], it's the presence of a distortion or fuzz pedal. The moment somebody sees a distortion pedal in your chain [of pedals] or something that would generate feedback they hear it as being too loud, regardless of what ever volume you are working at. People get very nervous. If that's not there, the sound is not identified as loud but the moment classically trained musicians hear fuzz or distortion they hear it as too loud. That's what I've found. People tend to enjoy it [electric guitar] but I think it's the presence of distortion which is often the critical factor for a lot of more traditionally trained players – that becomes a more polarised thing<sup>207</sup> – Daryl Buckley

#### **4.7.5 Predictions of the Electric Guitar's Role in the Future of Art Music**

Most composers and performers in their closing remarks made very positive predictions about the future of the electric guitar in contemporary art music. The most common prediction, expressed by Georges Lentz, Steve Mackey, Phillip Houghton, Gavin Bryars, Jean-Claude Eloy, Michael Gordon, David Dramm, Karlheinz Essl, Michael Nicolella, Michael Smetanin, Enda Bates, Toon Callier, Moritz Eggert, Lois V

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<sup>207</sup> Personal correspondence with Daryl Buckley, 30/8/11.

Vierk, Anthony Fiumara, Geoffrey Morris, Carl Dewhurst, was that the electric guitar will play a very large/ever-increasing role in the next twenty to thirty years of art music, to the point where it, as Carl Bettendorf stated, will “be normal.”<sup>208</sup> Other common remarks made by composers were that the instrument has proven that it’s not a ‘fad’ and that it’s not ‘going to go away’ (Michael Gordon). Enda Bates predicts that the instrument may take off in countries such as Ireland, Australia, Holland and the USA “which don’t have this very fixed tradition about what contemporary music is or isn’t.”<sup>209</sup> American composer-performer, David Dram, who resides in Amsterdam, believes that it will be the composer-performers who lead the way for repertoire and performances for the classical electric guitar:

“If you look at historically from the violin and the piano point of view, it was the composer/performer on those instruments that put the instrument into a solo position ... it’s really good that it’s [electric guitar] seen more of these of these kind of composers [composer-performers] that are still playing their own instruments and including it in their own pieces because there the one that show the other composers what the instruments can do”<sup>210</sup> - David Dramm

Derek Bermel stated that he hopes that over the next twenty to thirty years, the electric guitar will become a normal instrument in contemporary music and a standard feature of the instrumentation for contemporary art music ensembles. Moritz Eggert, Enda Bates and Brett Dean mentioned that as technology (computers, sound patches, MIDI plug-ins and so on) play a larger role in art music in general, the electric guitar is

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<sup>208</sup> Personal correspondence with Carl Bettendorf, 26/6/11.

<sup>209</sup> Personal correspondence with Enda Bates, 9/11/11.

<sup>210</sup> Personal correspondence with David Dram, 9/8/11.

most likely also bound to play an increasing role. This is because the instrument has the potential to be used by composers and performers as an interface controller which could shape and control the live sound. Dean went on to comment:

I'm sure [with] electric instruments as the technology available becomes more and more sophisticated, amenable, ubiquitous and all pervading, then there's no reason why that can't contribute [to the electric guitar's role in art music]. It doesn't necessarily mean that the standard of sonic exploration has risen because everyone one has 'Garage Band' on their lap top but it does mean that more people are exploring with sound (even in their bedrooms) than ever before (in an electronic medium) - so the more people doing the more chances there will be something interesting coming out of it<sup>211</sup> – Brett Dean

Composers such as Carl Bettendorf and Phillip Houghton believe that the art music repertoire for the instrument will continue to increase as will the number of proficient classical electric guitarists and wider public acceptance of the instrument from the classical community. Some composers also feel that the instrument will be responsible for the blurring and breaking down the barriers between classical music and popular music.

It is only going to increase. I can see it very clearly: the boundaries between classical serious music and more popular music are becoming more and more blurred and that's a good thing because if people recognise the general sound in the music that they know from other genres they will be drawn to it more than if

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<sup>211</sup> Personal correspondence with Brett Dean on 24/8/11.

it's a purely classical ensemble, things that they have never heard before<sup>212</sup> -

Georges Lentz (Luxembourg)

## **4.8 Recommendations for Composers**

### **4.8.1 Collaboration with an Electric Guitarist: the Educative Process**

Despite composers lamenting about how hard it can be to find electric guitarists who can read music scores and follow a conductor, most composers recommended that fellow composers collaborate with an electric guitarist. This is so that the guitarist can educate them regarding how the instrument is played, how certain effects/techniques are executed and how the equipment works.

It's [electric guitar] one of the instruments that is hard to know about, without practising or without actually playing it. It's hard! ... . I've written once for electric guitar and twice with acoustic guitar and I had to work with guys [guitarists] to check notation, it was a very unique way of treating an instrument<sup>213</sup> - Carl Bettendorf

This educative process is very important should a composer (who has no knowledge about the electric guitar) wish to write for the instrument. Many of these composers also recommended collaborating with an electric guitarist throughout the entire compositional process and having regular face to face workshop sessions so that the composers can hear and see how their composition works on the electric guitar (for a more detailed insight into collaborative models and the collaborative process refer to Chapters 5 and 6). Composers such as Brett Dean, Michael Smetanin, Malin Bång,

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<sup>212</sup> Personal correspondence with Georges Lentz on 16/2/11.

<sup>213</sup> Personal correspondence with Carl Bettendorf, 26/6/11.

Michael Nicoletta and Karlheinz Essl either have had access to an acoustic guitar or electric guitar to assist them when composing for for the instrument. Brett Dean, Sidney Corbett and Malin Bång recommended that fellow composers who are interested in writing for the instrument buy or borrow an electric guitar and amplifier so as to learn how the tuning of the instrument affects fingerings as well as how to successfully voice chords and so on:

I do use a  $\frac{3}{4}$  size guitar to go through my guitar parts to make sure, first and foremost, that I haven't done anything that is impossible and silly, but secondly check the vernacular of it and its playability, and to get my head around it I suppose. I like the idea of getting my head into the space the musicians that are playing my music even if its instrument that I have no practical experience. Then you understand what they are going through which is helpful<sup>214</sup> – Brett Dean

I think many composers are daunted by the asymmetrical way the guitar is tuned, with fourths and the major third. Also, the coordination of right and left hand which is on the guitar so critical and so different from other instruments. [It] causes problems. Also the issue of resonance and sustain, the fact that a tone is gone as soon as the finger is lifted, all this makes harmonic thinking for composers, who tend to write at the piano and thus have the use of pedal, (it) makes writing for the guitar difficult. My suggestion would be to get a guitar and try and get a feel for it<sup>215</sup> - Sidney Corbett (USA)

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<sup>214</sup> Personal correspondence with Brett Dean, 24/8/11.

<sup>215</sup> Personal correspondence with Sidney Corbett, 30/1/12.

I tried a lot on my own [when composing *Spine Reaction* for electric guitar quartet] and I think met up with them [electric guitar quartet] during the process to check [excerpts]. I had a beginner's electric guitar which was very cheap and [I] had a very small amplifier<sup>216</sup> – Malin Bång

Rhys Chatham went as far as recommending that composers wishing to write for the electric guitar should play in a rock band in order to understand the tradition of the electric guitar:

If you're a composer coming out of a conservatory background and you try to write a 'rock piece' my recommendation would be to have some experience playing rock otherwise it's going to sound too academic... the way to understand rock is to play in a rock group and play in some clubs<sup>217</sup> – Rhys Chatham

Performers and composers both recommended that future composers familiarise themselves with the repertoire featuring the electric guitar in both popular music and art music in order to gain an understanding about the instrument's history and standard performance practice, as well as hear examples of how the instrument has been successfully integrated into contemporary art music in both solo and chamber settings.<sup>218</sup> The most commonly recommended art music compositions which demonstrate highly skilled and innovative approaches to writing for the electric guitar were Fausto Romitelli's (1963–2004) works *Professor Bad Trip: Lessons I, II & III* (1998–2000) and *TV, Trash, Trance* (2002).

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<sup>216</sup> Personal correspondence with Malin Bång, 30/8/11.

<sup>217</sup> Personal correspondence with Rhys Chatham, 24/8/11.

<sup>218</sup> For a list of popular music recording which highlight the electric guitar's various timbral, textural, technical and sonic capabilities refer to Appendix B.

The best pieces that I have probably ever heard for solo electric guitar are *TV*, *Trash*, *Trance* [and] *Professor Bad Trip Lessons I, II, III* by Fausto Romitelli. In *Professor Bad Trip Lesson I, II, III* the electric guitar is used so effectively within the texture that it's very convincing, it's not just a louder version of the classical guitar, which is how a lot of composers used to do it<sup>219</sup> - Geoffrey Morris

#### **4.8.2 Things to avoid and things thing to keep in mind when composing for Electric Guitar**

Daryl Buckley warned composers not to write for the electric guitar as if it were a classical guitar. He spoke about how the basic techniques of the two instruments are fundamentally different and how techniques and compositional material do not necessarily translate well between the two instruments. As previously mentioned, in order for composers to avoid making this mistake, they should seek the advice of an electric guitarist before they start composing.

While many performers recommended composers embrace the technology associated with the electric guitar, guitarist Daryl Buckley warned composers not to be too specific with the technical parameters of the equipment:

I recently saw a work and I didn't want to play it, wherein the composer had written really detailed technical parameters for various multi-effect units. They [effects units] were all out of date and it's not so much the obsolescence of the machinery but it was that degree of specificity about certain effect parameters [that bothered me]. [Composers are] actually assuming that the player's got that

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<sup>219</sup> Personal correspondence with Geoffrey Morris on 12/5/11.



equipment. It's probably a reflection of the composers themselves owning equipment that they've spent a lot of time with but not really understanding how that may translate to either a different instrument or a different situation<sup>220</sup> –

Daryl Buckley

Composers should also not assume that a guitarist will have a specific model of a guitar, amplifier, pedal etc - for example, most electric guitarists will own a wah-wah pedal but possibly not a Dunlop Crybaby 535Q Variable wah-wah pedal. Occasionally composers may rely on a piece of equipment which they personally own, but this equipment may have long been out of production thus making it impossible for guitarists around the world to play the work.

## **4.9 Conclusions**

This research has shed light on the variety of views, attitudes and perceptions composers and performers hold towards the electric guitar well illustrate both the common and unique experiences they have had with the instrument. As there has been no prior scholarly research into composers' and performers' interactions with the electric guitar, this chapter has relevance for the musicological and compositional communities, as well as for aspiring classical electric guitarists. It is hoped that this chapter will encourage further research into the ways composers and performers, compose for and perform on the electric guitar.

The data has shown that there are links between composers' and performers' socio-cultural environments and when, how and in some case why, they wrote for the electric guitar. By placing these composers in specific categories and outlining their

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<sup>220</sup> Personal correspondence with Daryl Buckley on 30/8/11.

musical education; interaction and attitudes towards popular music and the electric guitar; and experience/s composing for the electric guitar, future individuals researching the development of classical electric guitar repertoire will be able to source this chapter and gain a comprehensive insight into the conditions which led these composers to write for the instrument as well as how they found the experience. This chapter has clearly illustrated the two paths which European and non-European classical electric guitarists have taken in order to become accomplished concert musicians. European performers, with the exception of Wiek Hijmans, began their musical educations on the classical guitar while the bulk of the non-European performers began their musical educations on the electric guitar. However, the majority of performers in both categories are now very well versed on both instruments. It is interesting that in some cases there has been a role reversal which has seen certain European performers play predominantly electric guitar in professional engagements and non-European performers play classical guitar more often in professional settings. For example Toon Callier and the member of his electric guitar ensemble (Ensemble Zwerm) spend more of their professional lives playing electric guitar. Seth Josel, Tom Pauwels and Elana Casoli, depending on concert bookings, may for a period of months predominantly perform on the electric guitar, and Geoffrey Morris, who began playing electric guitar, now predominantly plays classical guitar.

The interviewees highlighted how the electric guitar, due to its ubiquitous presence in western life, as well as its ability as a ‘timbral chameleon’, may be the most successful way of engaging younger audiences in classical music. However, the participants stated that a great amount of work is needed to improve the general reading

ability and chamber music skills of both classical and electric guitarists.<sup>221</sup> There are already not enough skilled professional classical electric guitarists to meet the local and international contemporary art music performance demands and if there is an increase in compositions for the instrument it will make performances difficult to stage.

Interviewees suggested that in order to successfully educate future generations of classical electric guitarists, conservatoriums and music academies need to embrace the instrument by offering courses on 'contemporary classical electric guitar'. They stated that courses such as this would expose guitarists to contemporary art music earlier and focus on improving their reading abilities, chamber music skills as well as teaching them how to follow a conductor.

Much work has been done to successfully integrate the electric guitar into an acoustic ensemble and composers are still discovering new ways of creating a good balance and blend amongst acoustic and electric instruments. As live sound technology continues to develop and improve, this task will become easier however, it is an aspect of the electric guitar that composers must always factor in when composing for the instrument in an ensemble context. To some degree the electric guitar is still associated with negative 'rock and roll' stereotypes held by some classical musicians and audience members. I feel that some composers who have not written for the electric guitar are perhaps somewhat deterred from doing so because of its cultural baggage and negative stereotypes. However, the guitarists interviewed in this chapter are on personal quests to change these negative stereotypes by illuminating the instruments potential as an electric acoustic instrument as well as its' capability for great subtlety and nuance. It is hoped that this document - which highlights many established and successful

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<sup>221</sup> The majority of professional work which requires classical electric guitar is done by a small group of guitarists, most of who were interviewed for this chapter.

composers' views towards and experiences with the instrument - will demystify and debunk the myths and stereotypes that are holding the instrument back in art music.

The recommendations featured in this chapter which were made by composers concerning the electric guitar's logistical and idiosyncratic properties, provide a wealth of insights into the 'do's and don'ts' when writing for the instrument. Collaborating with an electric guitarist - for composers who have no knowledge of, or experience with the instrument - is very important and many composers suggested that fellow composers also acquire basic guitar skills in order to understand on a more intimate level how the instrument works regarding right and left hand coordination, tuning, effects pedals, amplifiers and so on. As collaborating with an electric guitarist is so vital for composers with no experience with the electric guitar, the final two chapters of this thesis are dedicated to the varied aspects of collaborations, proposed collaborative models as well as a detailed account of my own collaborative experience.

## **5 Section C – Chapter 5: Collaborations and the Creative**

### **Process**

Anytime I write for a solo player there is some kind of collaborative aspect to it because I like to write for a person not an instrument. Part of that is because when you write for a particular player it gives the piece a particular profile<sup>222</sup> –  
Derek Bermel

### **5.1 The Nature of Collaboration, Modern Technology, Mediation and Philosophical Issues to be considered: Reflections based on the Author's Experiences.**

Collaboration is by no means a new concept in the artistic world. Many creative disciplines have prospered over the ages due to great collaborations between composers and performers, teachers and students and artists from different fields. This section focuses on the different aspects of the collaborative process between composers and performers relating to the electric guitar in art music, and will discuss literature pertinent to the topic. It will also investigate the various roles that collaborators may adopt throughout the creative process and what impact such modes can potentially have on the final composition. The impact of modern technology and its mediation on the aural experience will also be examined. This chapter discusses the significant issues which govern twenty first century 'new music' collaborations between a performer and composer which may result in composition/s.

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<sup>222</sup> Personal correspondence with Derek Bermel, 16/12/11.

A musical collaboration may evolve purely from a composer being captivated by a performance given by a particular soloist, thus inspiring the composer to write a work for them.<sup>223</sup> However, it is not uncommon for a composer to begin writing a work and then solicit the help of a performer to advise them on technical issues such as playability, phrasing and notation. The impact the performer has on the composer's final choice of specific music material may vary considerably. Unfortunately, it is very difficult to quantify how much creative influence a performer may have on a composer. In their article, "Ricercar – The Collaborative Process as Invention" Fitch and Heyde take a slightly cynical view regarding the creative contribution of the performer:

The relationship between composer and performer is very complex. Although the role of the instrumentalist may be very important, it is rarely that of an inventor. In fact it usually works the other way round. If an instrumentalist writes music for his own instrument, the result is often not interesting in the technical sense, for he tends to write something that is comfortable to perform, or to over-exploit certain personal facilities. On the other hand a non-performing composer often comes up with ideas that will force the performer to look for new solutions on the instrument.<sup>224</sup>

It is true that the relationship between composer and performer is multifaceted and it is not uncommon for 'non-performing' composers to extend the technical capabilities of an instrument, thus forcing the performer to find new solutions to enable them to execute the work. There are, however, composers who have written for their

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<sup>223</sup> For further reading on this scenario refer to: Barrie Webb, "Partners in Creation," *Contemporary music review* 26, no. 2 (2007).

<sup>224</sup> F. Fitch and N. Heyde, "'Recercar'—the Collaborative Process as Invention," *twentieth-century music* 4, no. 01 (2007): 71.

own instruments, and in doing so extended the technical and musical aspects of their instruments. An example of this is Paganini. Composers who wish to step out of their comfort zone and write detailed, substantial works for any instrument for which they do not have an intimate, working knowledge, often ‘collaborate’ with a performer (expert) to ensure that their composition is idiomatic.

In many ways the performer has often been a filter who pragmatically mediates the composer’s undigested composition in order to sort out the “innovative from the impossible.”<sup>225</sup> “The soloist’s challenge in new music is enormous,” writes trombonist Barrie Webb in his article “Partners in Creation.” “Whereas the composer will usually compose within certain confines understood as his or her particular ‘style’, today’s performer may be expected to interpret music of any style, and must possess an understanding of instrumental capabilities far beyond the demands of traditional music.”<sup>226</sup> If future generations are unfamiliar with a composition’s historical context, they may potentially overlook the fact that in some circumstances, composers have written works to exploit a specific performer’s unique musical and technical abilities. Composing with this intention would undoubtedly have an impact on the final work. A composition written for a specific performer may be so dependent on that player’s particular technique, musicianship and encyclopaedia of technical repertoire that the success of future performances of the composition may be impeded, if there is an alternate performer.<sup>227</sup>

Further problems may arise in the situation where the performer has worked very closely with the composer throughout the creative process. In this case, the

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<sup>225</sup> Ibid. 71.

<sup>226</sup> Webb, "Partners in Creation," 255.

<sup>227</sup> Performers who have collaborated with composers to create new solo works may slip through the cracks of history if their artistic and creative contribution has not been accurately documented.

performer's connection to the composer and composition may result in a deeper level of musical understanding in terms of how the work is to be interpreted. As a result, the collaborative performer's interpretation of the work, either live in concert or in recorded format, may be viewed by both the composer and audience as the definitive interpretation. An example of this would be Julian Bream's (b. 1933) interpretation of Benjamin Britten's classical guitar solo, *Nocturnal, after John Dowland Op. 70* (1963).<sup>228</sup> To use a substitute performer in this situation may also have an impact on the performance in the eyes of both the composers and audience.

Pre-cyber-age collaborations would have either involved regular meetings in person or correspondence via letter, often both.<sup>229</sup> With the advent of the internet and portable audio and video recorders, the nature of collaboration has expanded and is constantly evolving, in turn, opening up a realm of new possibilities which enable performers and composers from opposite sides of the globe to interact virtually.<sup>230</sup> It is still common for composers and performers to collaborate in person, but for those not fortunate enough to be able to do this, they now have alternative means by which to collaborate. While this technological revolution has been highly beneficial for the collaborative process, it is not without its limitations as modern technology can have an adverse impact on the creative process if the performer and composer are restricted to solely online collaboration. Ultimately this could affect the final composition as when a composer and performer collaborate in person, there is an intimate and tactile interaction that does not translate well via email, Skype, telephone or letters. In face to

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<sup>228</sup> Julian Bream, "Nocturnal," (EMI, 1993).

<sup>229</sup> A. Holde et al., "Suppressed Passages in the Brahms-Joachim Correspondence Published for the First Time," *The Musical Quarterly* 45, no. 3 (1959): 313.

<sup>230</sup> F.A. Seddon, "Collaborative Computer-Mediated Music Composition in Cyberspace," *British Journal of Music Education* 23, no. 3 (2006): 273.



face collaboration, their responses to each other's opinions and suggestions are immediate and there is no technology to mediate the aural experience. Although file sharing, email, MP3, PDF and MPEG have revolutionised modern living as well as correspondence between musicians, these compressed files do not have the same sound quality as hearing or seeing the performer actually play sections of a work. Technological mediation<sup>231</sup> may aurally distort the process for the composer leading them to cut or rewrite sections of their work.

## **5.2 Collaborative Models**

It is generally assumed that the role of the composer is to write sections of a work and then, if necessary, ask for a performer's advice on issues regarding technique, phrasing and notation. However, there are more numerous collaborative paradigms that a composer and performer may intentionally or unintentionally use throughout the creative process. The topic of creative collaborations between artists of the same or different disciplines has received a great deal of attention from the academic community over the past ten years. One can find articles on collaborations written by a variety of authors with backgrounds in such disciplines as composition, theatre, dance, visual art, performance, musicology, music education and psychology. The common topics which are investigated in composer-performer collaborations are:

### **5.2.1 The Creative Dynamic between the Composer and Performer**

This involves exploring potentially hostile and fruitless creative situations based upon "closed and open loop behaviours" and a lack of communication (regarding the effectiveness of the collaboration and the participant's

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<sup>231</sup> Leman, *Embodied Music Cognition and Mediation Technology*, 1-3.

satisfaction). For further reading on the creative dynamic between composers and performers refer to S. Hayden and L. Windsor's article, "Collaboration and the Composer: Case Studies from the End of the 20th Century,"<sup>232</sup> and Paul Roe's 2007 Ph.D thesis, "A Phenomenology of Collaboration in Contemporary Classical Composition and Performance."<sup>233</sup>

### **5.2.2 Assumed or 'Predetermined' Roles**

The composer-performer may model their collaborative relationship upon the, "I write/you play" approach, which can be often based upon the scenario that the composer is an authoritative figure and the performer is a 'technical' servant whose function it is to satisfy the composer's aesthetic wishes: refer to L. Foss' journal article, "The Changing Composer-Performer Relationship: A Monologue and a Dialogue."<sup>234</sup>

### **5.2.3 Intercultural Collaborative Approaches**

Undertaking a collaboration such as this may raise a variety of logistical and cultural issues if the composers and performers are from very different cultures or different countries. Logistical issues raised in a collaboration such as this are: language/communication problems and the potential need for translators, reliance on modern technology for communication (this could be a problem in some developing nations), lack of face to face rehearsals, transportation of instruments for performances, funding et al. Some of these logistical

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<sup>232</sup> S. Hayden and L. Windsor, "Collaboration and the Composer: Case Studies from the End of the 20th Century," *Tempo* 61, no. 240 (2007).

<sup>233</sup> Paul Roe, "A Phenomenology of Collaboration in Contemporary Composition and Performance" (2007).

<sup>234</sup> L. Foss, "The Changing Composer-Performer Relationship: A Monologue and a Dialogue," *Perspectives of New Music* 1, no. 2 (1963): 45.

considerations are detailed by Paul Humphrey's in his article, "The Flowering of Gending Agbekor: A Musical Collaboration with I Dewa Putu Berata."<sup>235</sup>

#### **5.2.4 Effectiveness and Accounts of Group Collaboration**

This can be seen in a variety of collaborative contexts such as small jazz ensembles, class rooms and orchestral rehearsals. This topic has received a considerable amount of attention from music psychologists, especially for treating psychological disorders such as depression, anxiety, and dementia. For literature which specifically deals with creative collaboration in a musical context refer to R.K. Sawyer's article "Group Creativity: Musical Performance and Collaboration."<sup>236</sup>

Some of these articles do offer broad paradigms for which creative collaborations can be categorised. However, there is a lack of detail regarding the scenarios and parameters under which composer-performer collaborations take place. Categorising a collaboration either for musicological purposes or as a way of providing a successful collaborative model for future composers and performers is an area which is worthy of more detailed scholarship. In their article, "Collaboration and the Composer: Case Studies from the End of the 20th Century," Hayden and Windsor offer these three collaborative models:

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<sup>235</sup> P. Humphreys, "The Flowering of Gending Agbekor: A Musical Collaboration with I Dewa Putu Berata," *ibid.*(2001).

<sup>236</sup> R.K. Sawyer, "Group Creativity: Musical Performance and Collaboration," *Psychology of music* 34, no. 2 (2006).

### **5.2.5 Directive Approach**

The composer writes a work and when it is completed it is given to the performer to play. There is little scope for discussion in this type of collaboration unless there is a major problem technical problem which needs addressing.

### **5.2.6 Interactive Approach**

The composer and performer work closely during the compositional process. However, this is strictly of a technical nature, no aesthetic issues are discussed.

### **5.2.7 Collaborative Approach**

The composer/s and performer/s have equal standing and their collaboration is based on an 'inter-dependency' of the collaborators.<sup>237</sup> The resulting composition may have "little or no notation," due to the potential improvisational nature of this type of collaboration.<sup>238</sup> In her article, "Performing Electroacoustic Music: A Wider View of Interactivity," Elizabeth McNutt discusses how a written score in collaborations between electroacoustic composers and performers can be a barrier requiring the performer to have a deeper understanding of the composer's intentions and goals:

The written score ideally bridges the gap between composer and performer. However, in electroacoustic compositions in particular, the score is often a barrier the performer must overcome in order to 'find' the piece. Performers need to have a reasonable idea of what sounds they will hear and how to work with them, yet explanations of the technology involved seldom accomplish this

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<sup>237</sup> Hayden and Windsor, "Collaboration and the Composer: Case Studies from the End of the 20th Century," 35.

<sup>238</sup> Ibid.

goal. Scores of electronic music are often vague about the sounds and relationships they represent, or else explain them in terms most useful to engineers. Composers' comments and explanations in rehearsal are often similarly opaque to performers.<sup>239</sup>

The aforementioned jazz pianist and music psychologist, R. K. Sawyer offers three similar collaborative categories in his article, "Group Creativity: Musical Performance and Collaboration." Sawyer's categories are very general and also lack specific detail regarding the scenarios and parameters under which composer-performer collaborations took place. His three categories are:

### **5.2.8 Improvisation**

"The moment of encounter ... the performers are not mere interpreters, they are creative artists."<sup>240</sup>

### **5.2.9 Collaboration**

All members of a creative team are reliant on each other, not an individual leader.

### **5.2.10 Emergence**

This appears to be a continuation of the previous *Collaboration* category, Sawyer writes, "Emergence refers to collective phenomena in which, as it is said, 'the whole is greater than the sum of the parts'."<sup>241</sup>

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<sup>239</sup> Elizabeth McNutt, "Performing Electroacoustic Music: A Wider View of Interactivity," *Organised Sound* 8, no. 3.

<sup>240</sup> Sawyer, "Group Creativity: Musical Performance and Collaboration," 148.

<sup>241</sup> *Ibid.*, 148–49.

I find these collaborative categories to be both overly broad as well as insufficient for outlining the context, various scenarios, parameters and situations which instigate and govern creative collaborations between composers and performers. Therefore I felt it necessary to create a list of categorical collaborative models (see ‘collaborative models’ 5.3.1.1. – 5.3.1.1.14) in order to both assist composers and performers in guiding future collaborative partnerships as well as help collaborators and musicologists retrospectively categorise a creative collaboration. The list of collaborative models have been derived from various sources such as my own collaborative experiences, composers’ and performers’ experiences raised in research interviews (for this thesis) as well as from collaborations referenced in contemporary music journals.

The following collaborative models may be used to assist collaborators in labelling the nature of their collaboration for musicological purposes. They may also be used to help guide composers and performers about to embark on a creative collaboration, in which case, the models should be viewed as merely guidelines or creative possibilities, not hard line rules. Once a collaboration between a composer and performer has begun, it may take on a life of its own and stray from its ‘predetermined’ path. There are many variables that may affect the path of the collaboration including personality differences, finances/budgets, conflicting aesthetics views, and so on. Collaborators are best not clinging to an ideal collaborative model and militantly follow its guidelines and instead accept that collaborations will, by their very nature, change as they progress. One should also realise that although a collaboration may have begun under one model, it may very well morph into a variety of different models of collaboration. I do not expect that most collaborations will be able to be placed solely

under one of the following categories I have proposed: a collaboration may fall under two or even three collaborative models/parameters. It is for this reason that I have included as many different collaborative scenarios and parameters as possible.

### **5.3 Collaborative Models and Parameters between a Composer-Performer/Improviser**

#### **5.3.1.1 Educative Collaboration - Model 1**

A composer wishes to write a work or may be commissioned to write a work for an instrument about which they do not have an intimate working knowledge. They solicit the help of a performer to educate them about the idiosyncrasies of the instrument, extended techniques, notational conventions etc. After the initial educative phase the composers begins writing without any input from a performer. When the piece is completed the composer may choose to show the work to the performer for feedback about the composition.

#### **5.3.1.2 Educative Collaboration - Model 2**

A composer wishes to write a work for an instrument of which they do not have an intimate working knowledge. They therefore solicit the help of a performer to educate them about the instrument's intricacies, idiosyncrasies and notational conventions. Once the composer begins to write, they may request further guidance from the performer so as to make their composition more idiomatic to the chosen instrument. It is also highly likely that when the work is to be premiered, the composer may have a great deal of input regarding how they want the piece to be interpreted in the performance. This model served as

the basis of the collaboration between Georges Lentz and myself on his solo electric guitar work, *Ingwe* (refer to section 6.4 of this thesis.).

### **5.3.1.3 Educative Collaboration - Model 3**

A composer is writing a work and wishes to include an instrument of which they do not have an intimate working knowledge. Although in the composition the instrument will not receive a solo part the composer still wishes to work with a performer to ensure that they write something that is idiomatic and achieves their desired sound aesthetic. The composer may also choose to work with an instrumentalist to ensure the part for the specific instrument is clearly understood and will be easily playable by any performer who may not have the luxury of working with the composer before a performance. An example of this would be the composer Brett Dean's collaborative work with Melbourne based classical/electric guitarist Leonard Grigoryan on Dean's opera, *Bliss* (2004– 2009). Dean worked with Grigoryan to make sure that the electric guitar part was idiosyncratic and clearly notated.<sup>242</sup> This was of benefit to me personally, as I performed the electric guitar part at the 2009 Sydney rehearsals ahead of the Australian premiere and found the electric guitar part required no clarification.

### **5.3.1.4 Intensive Collaboration inspired by a Performance**

A composer is inspired by a performance given by a particular soloist and wishes to write a work for that soloist. The composer contacts the soloist and the two work closely together to tailor make a work that exploits both the

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<sup>242</sup> Personal correspondence with Brett Dean on 24/8/11.



soloist's unique musical/technical capabilities and the composer's creativity.

There may be an educative phase in this collaboration (see collaborative models 5.3.1.1., 5.3.1.2., 5.3.1.3.). Generally, this work will be premiered by the performer.

#### **5.3.1.5 Collaboration Arising from a Commission**

A performer commissions a composer, who can play the specific instrument, to write a work for them. The composer does not need to be educated about how to write for the instrument but still wishes to work closely with the performer so they can tailor their composition to the performer's unique technical and musical abilities. The composer may have a great deal of input regarding how they want the piece to be interpreted in performance. A performer may commission a work from a composer who does not have a working knowledge of the electric guitar, in this instance the collaboration is likely to resemble 'educative collaborative model 2 – 5.3.1.2.). Australian composer Stuart Greenbaum and Australian guitarist Ken Murray are known to collaborate in this way.

#### **5.3.1.6 Collaboration after a Composition has been Written - Model 1**

A composer has written a solo work for a particular instrument which is playable but they may wish to workshop with the performer (ahead of a performance) so as to give the performer a better understanding of how to interpret the work and what specific tones and timbres they are to use.

### **5.3.1.7 Collaboration after a Composition has been written - Model 2**

A composer has written a work featuring an instrument of which they have a basic understanding however, at rehearsals or perhaps even before the rehearsal process and they briefly meet with a performer to make sure that the part is playable and clear. They may also work on the interpretation of the part.

### **5.3.1.8 Collaboration after a Composition has been Written - Model 3**

A composer writes a work featuring an instrument of which they have a basic understanding. Before the premiere they send the score to a performer to edit and, if needed, make idiosyncratic changes. There may be only one face to face meeting and it is not uncommon for the whole procedure is conducted via telephone, email, file sharing and post.

### **5.3.1.9 Collaboration resulting in Co-Composition**

A performer and composer embark on a collaborative project to develop either a solo or ensemble work for a specific instrument/s. Throughout the compositional and collaborative phase both the composer and performer have equal standing and therefore they are both credited in as composers. This represents the co-compositional aspect of collaboration.

### **5.3.1.10 Collaboration/Co-Composition resulting in a Guided Improvisation or Free Improvisation – Model 1**

A composer may be inspired to collaborate with a certain performer/improviser after hearing a performance/improvisation given by this soloist. The composer may only have a limited knowledge of the instrument and

wishes to become familiar with the performer's/improviser's unique musical capabilities. There may be an educational phase of the collaboration (see collaborative model 5.3.1.1.). The final composition may contain fragments of motivic and thematic material assembled in a formal structure with directions by the composers giving directions as to how the improviser is to improvise over each section. There is a great amount of freedom for the performer in this type of composition and although the thematic material for which each improvisation, and the general structure, remains the same, each performance will be different. The performer/improviser may be credited as a co-composer for the composition/improvisation.

#### **5.3.1.11 Collaboration/Co-Composition resulting in a Guided Improvisation or Free Improvisation – Model 2**

Two or more performers/improvisers may collaborate on a free improvisation. The performers/improvisers may have a less formal educational phase in order to become acquainted with each other's sound and improvisational style. There may be formal an informal discussion about the nature of their improvisation. In this collaborative model each performer/improviser is equally credited as a composer. In his article, "Group Creativity: Musical Performance and Collaboration," R. K. Sawyer discusses the improvisational collaboration model that exists in both in the music and drama worlds. "*Improvisation*: in most forms of group creativity, the creativity happens

in the moment of the encounter. In music (jazz ensemble) and theatre, the performers are not mere interpreters; they are creative artists.”<sup>243</sup>

### **5.3.1.12 Transcription of an Existing Composition that Requires Collaboration.**

A performer is required for a variety of reasons to transcribe and arrange an existing work for their instrument. Alternatively, a composer is required, for numerous reasons, to transcribe and arrange one of their existing works for a different instrument. To ensure that the project is successful the performer may collaborate with the composer particularly for musical and interpretational considerations. In the case of the composer transcribing/arranging an existing work, they may solicit the help of a performer who can show them how to idiomatically write for their instrument. In this instance the performer is assuming an editorial role and does not necessarily need to educate the composer on the idiosyncrasies of their instrument. An example of this type of collaborative model (involving the electric guitar) is the collaboration between the Australian composer Mark Clement Pollard and the Australian guitarist Antony Field. Pollard and Field worked together to transcribe/arrange the bass clarinet part of Pollard’s existing bass clarinet concerto, *Colouring the Sky* (2003) for the electric guitar.<sup>244</sup> Another example of this is Liszt’s piano reduction of Berlioz’s *Symphonie Fantastique*. In his article, “Collaboration and Content in the *Symphonie Fantastique* Transcription,” musicologist J. Kregor elaborates on this collaborative model:

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<sup>243</sup> Sawyer, "Group Creativity: Musical Performance and Collaboration," 148.

<sup>244</sup> Personal correspondence with Antony Field, 5/6/13.

Not only the transcription but also the full score [of Liszt's reduction of *Symphonie Fantastique*] —reveals an almost uninterrupted collaborative effort between the two artists. This high level of investment in each other's work hardly diminished when Liszt published the *Symphonie Fantastique* transcription in 1834, for his arrangements of Berlioz's orchestral pieces from the second half of the 1830s, particularly that of the *Ouverture des francs-juges*, bear the fingerprints of a symbiotic relationship.<sup>245</sup>

### **5.3.1.13 Collaboration between a Sound Artist and Performer**

This is similar to a collaboration between a composer and performer however, there may be more 'field recording' involved. The sound artist may record the performer making different sounds on their instrument which will then be manipulated by particular software. The sound artist may also design specific software for the composition to idiomatically interact with the performer's improvisation or performances of musical material. In some circumstances the sound artist may perform live with the performer, sonically altering their sound mid performance. This may require a great deal of collaborating so that both sound artist and performer are very familiar with the compositional material and each other's performance tendencies. Refer to Diana Young's, Patrick Nunn's, and Artem Vassiliev's paper, "Composing for Hyperbow: A Collaboration Between MIT and the Royal Academy of

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<sup>245</sup> J. Kregor, "Collaboration and Content in the *Symphonie Fantastique* Transcription," *Journal of Musicology* 24, no. 2 (2007): 199.

Music”<sup>246</sup>, as well as Elizabeth McNutt’s paper, “Performing Electroacoustic Music: A Wider View of Interactivity.”<sup>247</sup>

### **5.3.1.14 Multicultural and Multi-Genre Collaboration**

An art music composer may be inspired to write a piece after hearing a performance by a performer/improviser from a different culture or musical genre, such as a classical Indian musician/s, jazz musician/s or rock/pop musician/s. There may be an educational phase of the collaboration so that the composer can become better acquainted with the performer/improviser, the instrument and the subtleties of the musical tradition (see collaborative model 5.3.1.1. or refer to I. Whalley’s 2005 Journal article, "Traditional New Zealand Māori Instruments, Composition and Digital Technology: Some Recent Collaborations and Processes”).<sup>248</sup> The composer may confront issues such as limitations of the performer’s/improviser’s traditional western notation reading ability, notational issues (in traditional western music notation), language/communication problems and the potential need for translators, reliance on modern technology for communication, lack of face to face rehearsals, transportation of instruments for performances, funding, and the subtleties of non-western instruments. The performer/improviser may be credited as a co-composer. For a detailed account of this type of collaboration refer to Paul Humphrey’s journal article, “The Flowering of Gending Agbekor:

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<sup>246</sup> Diana Young, Patrick Nunn, and Artem Vassiliev, "Composing for Hyperbow: A Collaboration between Mit and the Royal Academy of Music" (paper presented at the Proceedings of the 2006 conference on New interfaces for musical expression, 2006).

<sup>247</sup> McNutt, "Performing Electroacoustic Music: A Wider View of Interactivity."

<sup>248</sup> I. Whalley, "Traditional New Zealand Māori Instruments, Composition and Digital Technology: Some Recent Collaborations and Processes," *Organised Sound* 10, no. 1 (2005).

A Musical Collaboration with I Dewa Putu Berata.”<sup>249</sup> This collaborative model is similar to other models listed above with the additional complication of cross-cultural relationships.

On closer inspection of these collaborative paradigms one can see that a question arises as to the role of the performer and whether they might undertake a compositional role. The issue of who should receive credit in a creative collaboration is very grey territory in art music composition. Further questions regarding crediting, include consideration of when does a performer change from a collaborator/editor to a co-composer? When a performer suggests the alteration of several sections in a work, should they be credited in the overall composition of the work? It may be a polite gesture on the composer’s behalf to credit their collaborator in the preface to the published score but, there is no rule or common practice that stipulates this as a requirement.

When popular artists collaborate to write a song it is not unusual for several people to be credited – these musicians may compose together or send each other compositional sketches with the understanding that each member can add or adjust existing sketch material.<sup>250</sup> Often this is displayed as music by X, Y, Z and lyrics by A, B, C. In his book, *Constraint, Collaboration and Creativity in Popular Songwriting Teams*, Joe Bennett writes:

“The process of creating popular song differs significantly from that for the majority of instrumental art music in two important respects: firstly, it is a partly

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<sup>249</sup> Humphreys, "The Flowering of Gending Agbekor: A Musical Collaboration with I Dewa Putu Berata."

<sup>250</sup> Joe Bennett, "Constraint, Collaboration and Creativity in Popular Songwriting Teams," *Journal of Articles in Support of the Null Hypothesis* (2010): 139.

literary act, songs having lyrics; secondly, it is extremely common for the composition to be co-written. Historically, around half of US and UK ‘hits’ are written by collaborative teams, most commonly comprising two individuals. At the time of writing (late 2010), current industry practice in the UK is for the majority of pop singles to be written collaboratively, with very few contemporaneous top 10 hits being written by individuals.<sup>251</sup>

This sense of a collective composition is generally uncommon to the art music world, especially in published notated compositions, as there has always been a very strong sense of creator (composer) and interpreter (performer). Again Britten’s and Bream’s collaboration which resulted in the *Nocturnal* is a great example of the clear cut roles that a performer and composer may assume during and after the collaborative process.

In new music composition there can be instances during the collaborative process where a performer may play a phrase, melodic idea or harmony, as part of their warm up, which captures the composers attention and thus becomes part of the compositional fabric (refer to section 6.5 of this thesis.)<sup>252</sup> Does this mean that the performer unintentionally composed part of that section of the work? It leads one to ponder; if a performer is improvising and a composer notates a portion of the improvisation and incorporates it in the formal structure of their composition, who is to be credited with that section of the composition? Very often during collaborative sessions, a performer will play through sketches provided by the composer, as well as improvise on these sketches in order to show the composer different tones, timbres and

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<sup>251</sup> Ibid. 139.

<sup>252</sup> Lentz, "Ingwe from 'Mysterium' ('Caeli Enarrant...' Vii) for Solo Electric Guitar (2003–2009) Performed by Zane Banks."



extended techniques.<sup>253</sup> If the composer then alters their sketches to incorporate elements of the performer's improvisation, should the performer be credited as a co-composer? This is something that composers and performers should consider, especially when having one's name listed as a co-composer with the relevant collecting agencies ensures royalty payments. Improvisation is not regarded with the same compositional reverence in the art music world as it is in the jazz<sup>254</sup>, rock and non-Western music communities.<sup>255</sup> Although improvisation in rock and jazz is highly respected, and performers have become famous for certain improvisations, such as Miles Davis' 1955 improvisation over Ray Henderson's and Mort Dixon's *Bye Bye Blackbird* (1926), unless the performer has written the song which they are improvising over, in most circumstances, the performers (improvisers) will not receive any royalty payments for their improvisation.

It is understandable that composers may feel a performer's suggestions of several note alterations throughout a composition do not require crediting. However, what if the performer had a more influential role on the composer's choice of notes, chords and orchestration? One of the most famous composer/performer collaborative partnerships of the nineteenth century was that of Johannes Brahms (1833–1897) and Joseph Joachim (1831–1907). The two had a close friendship which lasted from 1853–1897, and although Brahms did not always employ every suggestion which Joachim made, he still highly valued his comments and critique<sup>256</sup>: “Brahms relied upon and

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<sup>253</sup> Michael Hooper, "The Start of Performance, or, Does Collaboration Matter?," *Tempo* 66, no. 261 (2012): 29.

<sup>254</sup> Lewis Porter, "John Coltrane's 'a Love Supreme': Jazz Improvisation as Composition," *Journal of the American Musicological Society* 38, no. 3 (1985): 620–21.

<sup>255</sup> R Keith Sawyer, "Improvised Conversations: Music, Collaboration, and Development," *Psychology of Music* 27, no. 2 (1999): 193.

<sup>256</sup> Holde et al., "Suppressed Passages in the Brahms-Joachim Correspondence Published for the First Time," 313.

deeply trusted Joachim not only for his violinistic opinions but also for his questions about form and orchestration.”<sup>257</sup> Exactly how many suggestions Brahms acted on we may never know but it is clear that Joachim did have an impact on the final outcome of Brahms’s violin compositions.<sup>258</sup> This represents a very close form of collaboration which is often supported by an enduring friendship. Brahms’ D Major, Violin Concerto Opus 77 is dedicated to Joachim, and the International Music Company edition includes a cadenza written by Joachim – which can be purchased separately – however, Joachim is not listed as a co-composer or even a collaborator on the score of the work.<sup>259</sup>

It is fair to say that it would take, at the very least, several artistic collaborations and a deep mutual respect between a composer and performer before the composer would consider granting the performer the right to make alterations to their composition. One would hope that the composer would seriously consider any suggestions that a performer made regarding the work, and in the event that a passage is completely impossible to execute, that they work closely together to find a solution that is as faithful to the composers’ artistic vision as possible. Artistic collaborations can be lengthy and time consuming projects which require great commitment from both the composer and performer. Most often, successful collaborative projects are born out of a composer and a performer who have both been brought together by a common artistic vision.<sup>260</sup> It is hoped that the collaborative partnership and final result will be of benefit to all parties involved, as well as the art music community. One of the most essential

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<sup>257</sup> I-Chun. Hsieh, "Performance of the Violin Concerto and Sonata by Johannes Brahms with an Analysis of Joseph Joachim’s Influence on the Violin Concerto." (University of Maryland, 1997), 17.

<sup>258</sup> B. Schwarz, "Joseph Joachim and the Genesis of Brahms's Violin Concerto," *The Musical Quarterly* 69, no. 4 (1983): 513–24.

<sup>259</sup> Johannes Brahms, "Violin Concerto in D Major Opus 77," ed. Zino Francescatti (New York: International Music Company, 1971).

<sup>260</sup> Sam Hayden and Luke Windsor, "Collaboration and the Composer: Case Studies from the End of the 20th Century," *Tempo* 61, no. 240 (2007): 38.

ingredients for a successful collaboration between the composer and performer is perhaps the most obvious one: compatible personalities.<sup>261</sup> If the composer and performer share a similar artistic and musical vision, then the collaborative process can be exhilarating and greatly rewarding however, this does not ensure that the resulting composition will be received well by audiences. Alternatively, even if the collaborative process is a gruelling and laborious task and there is constant friction between participants it does not necessarily mean that the resulting composition will be a failure.<sup>262</sup>

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<sup>261</sup> N. Perlove and S. Cherrier, "Transmission, Interpretation, Collaboration-a Performer's Perspective on the Language of Contemporary Music: An Interview with Sophie Cherrier," *Perspectives of New Music* (1998): 52.

<sup>262</sup> Hayden and Windsor, "Collaboration and the Composer: Case Studies from the End of the 20th Century," 38–39.

## **6 Chapter 6: Georges Lentz’s *Ingwe*: My Experience as a Collaborator and Performer**

People probably are in general very surprised that someone like me would write for electric guitar because they don’t see me as someone who has interacted much in the past with popular music<sup>263</sup> – Georges Lentz

### **6.1 My Musical Education and how I came to meet Georges Lentz**

In 2005, my classical guitar teacher, Gregory Pikler informed me that he had been contacted by a composer, Georges Lentz (b. 1965), who was searching for an electric guitarist to answer some questions he had about the electric guitar. Mr Pikler asked me to contact Lentz regarding his query, which I did. That was the beginning of Lentz and my collaboration on *Ingwe*.

### **6.2 *Ingwe*: Early Stages - 2005**

Firstly, I would like to make it known that I did not compose any sections of Georges Lentz’s composition, *Ingwe* from ‘Mysterium’ (“Caeli enarrant ...” VII) for solo electric guitar (2003–2009). As the performer of *Ingwe*, I worked very closely with Lentz as a technical advisor and collaborator throughout the main part of his compositional process (2005–2009) as well as the subsequent recording, promotional and international performance process (2008–2012). In the following sections of this dissertation I will endeavour to give a detailed account of the entire creative and collaborative process, so as to provide future non-guitarist composers and performers

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<sup>263</sup> Personal correspondence with Georges Lentz, 16/2/11.

with a successful model for creative collaborations involving the electric guitar. At no stage during this section do I attempt to speak on behalf of Georges Lentz. I may quote him where appropriate but this account is entirely from my own perspective.

When I first contacted Lentz, I knew nothing of his artistic intentions except for the fact that it involved the electric guitar. At the time, my only experience of performing contemporary art music on the classical guitar was the compositions of the Cuban composer, Leo Brouwer (b. 1939). During this stage of my musical education I was heavily immersed in performing classical guitar transcriptions of Bach's sonatas for unaccompanied violin while also taking history classes in Early Music. I was, however, open to contemporary music but as a young guitarist had not had many opportunities to perform a great deal of new music repertoire as either a soloist or chamber musician.

The prospect of contacting such a well-established European/Australian composer and potentially helping him to better understand the electric guitar was daunting but also very exciting, especially knowing that it may result in a new composition, which I could possibly be asked to perform. When I phoned Lentz for the first time he told me of his intention to write an unaccompanied electric guitar work that would be roughly an hour in length. He informed me that his compositions were usually quite rhythmically challenging and that I would need to be a strong reader to be able to decipher the composition he had in mind. After a short discussion regarding my reading ability, we met in order to talk at length about Lentz's creative vision and listen to recordings of different well-known electric guitarists. I also suggested that we could examine electric guitar transcriptions and experiment with my electric guitars, pedals and amplifiers as Lentz had mentioned he was unfamiliar with the electric guitar and rock/pop music in general.

Lentz related he had an epiphany while in the Australian outback and felt that his next composition needed to be for solo electric guitar. He informed me that he had bought a recording of Jimi Hendrix's Woodstock concert (1969), which he had been listening to frequently, however, he had many questions about how to achieve and notate the sounds and techniques that Hendrix was creating. In preparation for our first meeting, I made a compilation of electric guitarists who represented a variety of different genres. The aim of this was to give him an idea of the wide range of sounds and techniques which can be achieved on the instrument. I found that supplying Lentz with this material was of great benefit to our collaboration as these recordings opened his eyes to some of the sonic possibilities of the electric guitar.<sup>264</sup>

Our first meeting began with a more in-depth discussion regarding Lentz's vision for his composition. He informed me of his fascination with the diversity, beauty and harshness of the Australian landscape, as well as his love for traditional Aboriginal art and it was at this point that he outlined in detail how he came to want to write a very substantial unaccompanied work for the electric guitar. Lentz was born in Luxembourg in 1965 and as a child received a very thorough European classical musical education, which focused on violin, piano and composition. He furthered his musical studies at both the Paris Conservatoire (1982–1986) and Musikhochschule Hannover (1986–1990) before obtaining a position in the first violin section of the Sydney Symphony in the early 1990s.<sup>265</sup> When we first met, Lentz gave me two of his commercial recordings

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<sup>264</sup> For collaborations in which I have been involved I (post *Ingwe*) that involve composers who are unfamiliar with the electric guitar, I always supply a Powerpoint slideshow prior to our first collaborative session which contains essential information about the technical, performative and notation aspects of the electric guitar as well as includes a recommended listening list.

<sup>265</sup> Georges Lentz, "Biography," <http://georgeslentz.com/shortcv.htm>. Accessed on 28/5/12.

featuring his compositions *Birrung*, *Nguurraa*<sup>266</sup>, *Ngangkar* and *Guyuhmgan*<sup>267</sup> and it was after listening to these that I became instantly captivated by his compositional style. However, on first listening I could immediately tell that his quest to write for the electric guitar would mark a major artistic and aesthetic departure from what he had previously written.

At this initial meeting Lentz expressed his previous disdain for the electric guitar and elaborated on his radical change of heart regarding his interest and respect for the instrument. In February 2011, I interviewed Lentz as part of this dissertation and he rearticulated what he had said to me about the electric guitar when I first met him: he stated that the electric guitar created an ‘ugly, dirty, horrible, whining, vulgar sound’.<sup>268</sup> These deep-seated views changed in the course of one evening in December, 2004. On his website Lentz published this statement regarding the inception of *Ingwe*.<sup>269</sup>

The initial idea for ‘Ingwe’ came to me during a car trip to the Outback in 2004. One evening at the “Royal Hotel,” a pub in northern N.S.W. a man sat alone tuning up his guitar before that night’s rock gig. I was working on a piece for solo cello at the time but knew immediately that I should write something for the guitar instead – the whole loneliness and desolation of the place (and indeed my own loneliness) seemed to be encapsulated in that man’s sound. Sitting in the pub late that evening, I could see the whole work before my mind’s eye, a kind

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<sup>266</sup> "Caeli Enarrant...Iii & Iv: Birrung - Nguurraa, Ensemble 24 and Mathew Coorey," (E.C.: Naxos, 2001).

<sup>267</sup> "Mysterium: Ngangkar - Guyuhmgan, Sydney Symphony Orchestra and Edo De Waart," (Sydney: ABC Classics, 2002).

<sup>268</sup> Personal correspondence with Georges Lentz, 16/2/11.

<sup>269</sup> Should one wish to view the scenery which inspired *Ingwe* as well as the monastery where Lentz wrote the first complete draft, I recommend watching Nick and David Smith’s 2010 documentary, *The Night Within: On the Tracks of Ingwe*. The part documentary is available on Youtube: Nick. Smith, Smith, David, "The Night Within: On the Tracks of Ingwe," (Australia: Australian Albatross and Nick Smith Productions, 2009).

of intuitive flash. I left the pub in a hurry and wrote some extensive initial sketches that same night sitting in my car in the middle of the desert (in Old Mission Road).<sup>270</sup>

Once we had discussed at length Lentz's background and compositional aim, we moved on to the selected recordings, scores<sup>271</sup> and an electric guitar notational chart featuring regular and extended techniques. Lentz eagerly listened while closely examining the scores and seemed thrilled to actually find out how to notate the sounds he had been hearing. My demonstration of the techniques a guitarist uses to create these sounds further fascinated Lentz. This was also a perfect opportunity to explain how the electric guitar works once plugged in to an amplifier and effect pedals. Lentz was a very eager participant in this demonstration. Instead of sitting at a distance and observing like an examiner, he stood the entire time, looking very closely at how I played the guitar and noting the function of the dials and tone controls of the guitar, amplifier and pedals particularly when placed on various settings. Lentz asked how Hendrix achieved particular sounds, and he would mimic the sound until I played what he had heard. Then he would say, "Yes, yes, that's it, what is that? What is it called? Can you play it again? [While watching even more closely] How would I notate that?" He also asked me to play some melodies and phrases on which he had been working. Lentz would sing a couple of notes and ask to hear it played with distortion or wah-wah, while at other times he would ask to hear a passage played with a clean, dry tone or 'tremolo picked'. We did not work through a great deal of melodic material at this first meeting: the

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<sup>270</sup> Georges Lentz, "About 'Ingwe' from 'Mysterium' ('Caeli Enarrant...' Vii) for Solo Electric Guitar (2003–2009)," <http://www.georgeslantz.com/ingwe.html>. Accessed on 28/5/12

<sup>271</sup> The 'scores' were transcriptions of well-known guitar recordings. Each transcription was notated in music and guitar tablature.



material we did experiment with used many different tones, timbres, effect pedal manipulation and techniques.

The thing that initially struck me about Lentz was his interest in fine detail. He wanted to know and see how everything worked. I could see that Lentz did not just want to be acquainted with the electric guitar; he wanted to become an expert in terms of its capabilities. It also became apparent that despite our twenty-three year age difference, we had very compatible personalities and many mutual interests. In 2008, Lentz released his only public statement about our 2005 meeting, “2005 – countless sketches, incorporating bits from the rejected cello piece, which I had been working on since 2003. First contact with the performer of the premiere, Zane Banks, with whom I have been working closely ever since.”<sup>272</sup> I never saw any of the ‘extensive sketches’ which Lentz refers to in this statement. I presume that he had written the bulk of these sketches before we met.

### **6.3 Composition and the Collaborative Process - 2006**

After our initial meeting in November 2005 we did not meet again until early 2006 as Lentz needed time to digest his recently acquired information about the electric guitar and write some new sketches. We were however in touch via telephone which was mainly for Lentz to confirm performance terms and notational methods while he was working on preliminary sketches. This communication was essential as it ensured that during our 4 month collaborative session break, Lentz could develop sketches that were largely idiomatic and useable. In March 2006, Lentz finalised the first complete

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<sup>272</sup> Lentz, "About 'Ingwe' from 'Mysterium' ('Caeli Enarrant...' Vii) for Solo Electric Guitar (2003–2009)". Accessed on 25/5/12.

draft of *Ingwe*, which was undertaken while he resided at a monastery in Clervaux, Luxembourg which he often frequents when composing.<sup>273</sup> On his website, Lentz wrote:

March 2006 – first complete draft during a week-long stay in the silence of the Benedictine Abbey in Clervaux, Luxembourg. I am sure the many passages with “melismatic” inflections go back to hearing the monks’ chant 5 times daily during that week. I have reworked the piece extensively since scrapping bits, adding new ones...<sup>274</sup>

On Lentz’s return he informed me that he had completed a first draft and we remained in phone contact. On 12/5/2006 Lentz emailed me a typeset copy of the first draft page (see Figure 7) and there was the following correspondence between us:

#### **6.3.1.1 Lentz – (12/5/2006)**

Here’s an initial draft of the first page of the guitar piece. Nothing is final - including the title... There are 4 beats in every bar. They can be either crotchets, semiquavers or semibreves. Crotchet = 30 / semiquaver = 120. The semiquaver should be your basic pulse. Your feedback is most welcome!

Georges<sup>275</sup>

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<sup>273</sup> Ibid. Accessed on 25/5/12.

<sup>274</sup> Ibid. Accessed on 25/5/12.

<sup>275</sup> Personal correspondence with Georges Lentz on 12/5/2006

### **6.3.1.2 Lentz – (13/5/2006)**

I can see that for example in bar 8 beat 4, it should still be the 11th fret, as on the 3rd beat. And there probably should be an arrow in the tablature, going up on beat 3 and coming down on beat 4. Do I understand that correctly?

G<sup>276</sup>

### **6.3.1.3 Lentz – (13/5/2006)**

... also, I realize the tablature in bars 10 to 12 doesn't take into account the fact that it's an octave higher ...<sup>277</sup>

### **6.3.1.4 Banks – (17/5/06)**

Hi Georges,

I have gone through the first page and have written left hand fingerings in. I have changed some of the tablature so it is easier to finger certain passages. I am sending this email from the Conservatorium but I will see if I can scan page 1 at home and send you what I have written in. I think it is good having the tab there for me to look at and then correct if need be. Some of the tab is fine but some passages needed to be 're-tabbed,' which I have done.

Zane

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<sup>276</sup> Personal correspondence with Georges Lentz on 13/5/2006

<sup>277</sup> Personal correspondence with Georges Lentz, 13/5/06

### **6.3.1.5 Lentz – (17/5/06)**

Thanks a lot for the feedback, Zane - I look forward to receiving the scanned page. Just one question: would you ideally like to have the rhythm shown on the Tab stave as well? I know it would mean a whole lot more work for my copyist, but would it help?<sup>278</sup>

G

### **6.3.1.6 Banks – (18/5/06)**

Don't worry about having rhythm shown on the TAB stave.

Zane

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<sup>278</sup> Personal correspondence with Georges Lentz, 17/5/06

**ingwe**

from 'mysterium' ("caeli enarrant..." VII) (2000–2001)  
for solo electric guitar

georges lentz

The first system of musical notation for 'ingwe' consists of a treble clef staff and a guitar tablature staff. The staff contains a melodic line with various articulations including accents and slurs. Above the staff, there are markings for 'dist.' (distortion) and 'norm.' (normal). The dynamic marking 'fff' (fortissimo) is present. The tablature below the staff shows fingerings: 2 4 8 5 7 8 7 5 4 | 3 2 2 4 4 4 8 9 5 3 5 3 3.

The second system of musical notation continues the piece. It features a treble clef staff with a melodic line and a guitar tablature staff. The staff includes markings for 'dist.', 'norm.', and 'P.H.' (pick harmonics). The dynamic marking 'fff' is used. The tablature shows fingerings: 2 3 1 3 1 8 | 8 10 12 13 12 14 15 15 2 4 | 4 0 14 16 2 | 0 1 3 1 3 4 0 0 3 | 14 16.

The third system of musical notation continues the piece. It features a treble clef staff with a melodic line and a guitar tablature staff. The staff includes markings for 'dist.' and 'norm.'. The dynamic marking 'fff' is used. The tablature shows fingerings: 4 8 7 8 6 5 | 8 10 7 11 12 | 1 3 7 | 0 0.

The fourth system of musical notation continues the piece. It features a treble clef staff with a melodic line and a guitar tablature staff. The staff includes markings for '8va' (octave) and '(8va)' (octave). The dynamic marking 'fff' is used. The tablature shows fingerings: 3 1 8 0 2 4 3 2 | 4 5 4 6 5 4 6 8 | 9 3 0 1 16 3 17 | 13 14 2 1 | 2.

Figure 7: First draft of *Ingwe*, page 1 emailed to me on 12/5/2006.<sup>279</sup> I altered numerous fingerings as the default tablature setting of the music notation software was, at times, very unidiomatic to the electric guitar.

<sup>279</sup> Personal correspondence with Georges Lentz 12/5/06.



Figure 8: The edited score I emailed back to Lentz with my alterations.<sup>280</sup>

Despite the water damage to this page of manuscript (see Figure 8), one can easily see the type of editing and alteration I commonly did; my markings are in pencil and red pen. I did not alter any notes or rhythms on this score, but only changed tablature

<sup>280</sup> Personal correspondence with Lentz, 18/5/06.

markings. This was necessary as when Lentz's copyist typeset this page, the software automatically put corresponding tablature beneath the music staff. Occasionally these tabbed notes were illogical and needed to be changed (see Figure 8). In addition to this I added left hand fingerings (numerals written in red above the music) and worked out which notes would need to be fret tapped (these notes are marked with a T enclosed in a circled). This is the type of editing I most frequently did throughout 2006–2007. Each time Lentz sent me a new typeset instalment of *Ingwe*, I would spend time with my guitar working out logical left hand fingerings and writing them in tablature.

## **6.4 Establishing a Collaborative Model**

On 19/5/2006 I received the following email from Lentz which was to be a major catalyst in setting up our working collaborative model.

### **6.4.1.1 Lentz – (19/5/2006)**

One thing that would definitely help me though would be to do a preliminary recording of some stuff in the not too distant future - say, if I gave you a couple of pages (including the one you've got). Perhaps you could learn them and we could put them down. How do you feel about that? G<sup>281</sup>

From this point on Lentz and I, without formal discussion, settled into a regular collaborative format. This involved regular face to face sessions supplemented by various forms of technology and correspondence. This very productive working model remained in place throughout 2006, 2007 and early 2008 (in preparation for the

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<sup>281</sup> Personal correspondence with Georges Lentz, 19/5/06.

recording session). I try, whenever possible, to use this model in all artistic collaborations as I have experienced its productiveness and success.

I will now explain in detail how our collaboration operated as this may provide other instrumentalists and composers with a proven model.

1. Lentz would email me a page/s of typeset manuscript (occasionally it would be hand written) approximately one week before a scheduled meeting. In his email Lentz would inform me which page/s had been sent through and ask me to read through them. This email would be followed by a phone call in which Lentz would go through in more detail his aims in these sections.
2. Over the course of the following week I would read through the manuscript, alter any illogical/unidiomatic tablature, and write in left hand fingerings and notes that needed to be fret-tapped. Once this had been done I would then learn to play these pages so that when we had our face-to-face session Lentz could hear the latest instalment in its entirety.
3. On the day of the session Lentz and I would begin by talking through what he had sent me to make sure that everything was clear. We made a habit of recording our face-to-face sessions. Once my gear was set up, I would play through all the new material that had been emailed to me the previous week. After I had played through the material, Lentz would ask for my opinion on the idiosyncratic nature of the excerpt and if I had any performance suggestions. He



would then ask to hear certain sections again. We would also experiment with different tones, timbres, effects and equipment to see how the altered sounds affected the new material. Often Lentz would alter his score at these sessions and would take notes on what we had trialled, as well as document my tone settings and the equipment used to create particular sounds. We would experiment with a technique or tone and this would inspire Lentz to incorporate it in a new section, or he would rewrite an existing section to feature a new sound upon which we had stumbled.

4. Once we had concluded our four to six hour, monthly and occasional fortnightly, face-to-face session, Lentz would take the recording home and use it as a reference for his recent sketch material. He would then make any necessary adjustments to this material often calling me a few days after our session to clarify things that we had covered. He would then embark on composing new material and the cycle would then be repeated.

## **6.5 Mistakes and throw-away lines which became part of *Ingwe***

Throughout the collaborative process of *Ingwe* there were several mistakes made by myself which were to ultimately have a profound impact on the final work. Part of the charm of a creative collaboration is its unpredictability (refer to the following collaborative models from Chapter 5: 5.3.1.2., 5.3.1.4., 5.3.1.9., 5.3.1.10., 5.3.1.13., 5.3.1.14.); even a mistake can lead to wonderful, new aesthetic possibilities. When embarking on this collaboration with Lentz, I strived to play as well as possible when in his presence and I was always embarrassed when I made a mistake while playing

through his sketches. I had no idea that some of the mistakes I made in front of him were to become defining features of the *Ingwe* that have a crucial structural role in the work. The following ‘mistakes’ were encountered while collaborating and then became an integral part of the timbre, texture and structure of *Ingwe*.

These mistakes arose from the following situations:

- i. Mistakes I made while playing new sketch material for Lentz.
- ii. While warming up (without even thinking), I would play a ‘lick’ or create a sound that intrigued Lentz.
- iii. By chance we would stumble across a sound or technique during the experimenting phase of a collaborative session.
- iv. I would demonstrate something for Lentz and he would pick up on a minor detail which was not the main point of my demonstration. We would then explore this sound or technique.
- v. We would be working on or re-working a section that needed attention and either Lentz or I would suggest using a particular sound or technique to employ in that particular section.

## **6.6 Explanation of particular techniques which were a result of ‘Controlled Accidents’**

### **6.6.1 String Rubbing: Subtle Tremolando**

During one particular collaborative session in mid-2006, Lentz had written some new material that consisted of tremolo picked phrases. The part of *Ingwe* upon which we were working now constitutes the quiet, meditative section from bars 90-113. As these phrases appeared every four to five bars, Lentz seemed to feel that the

section was sounding repetitive. Later in this same session we were, by chance talking about a technique known as ‘pick scraping’. Pick scraping is used most commonly in rock and heavy metal genres to create a ‘dive bomb’ sound. This involves turning the plectrum on its side and running it down the length of the coiled bass strings so that it is caught in the grooves (between the wound nickel coils) on the low E-string (a reasonable amount of distortion is required to effectively achieve this sound). This technique is usually classified as non-pitched. However on this occasion I mentioned to Lentz how Rage Against The Machine’s electric guitarist, Tom Morello, used light pick scraping with overdrive on the song *People of the Sun* as the means of articulating the main semitone ostinato.<sup>282</sup>

Lentz asked if I could play one of the tremolo picking section we had looked at earlier in the day using pick scraping. I did as Lentz requested and we found this technique to be too harsh from a timbral perspective, to the point where the pitch material was not clear. Lentz asked, “Could you play that passage in the same way [referring to pick scraping] but instead, rub the string with your finger?” (see Figure 9) When I tried rubbing the low E- string with my right hand middle finger it did not sound very convincing and I suspect this was due to the fact that I was using a clean sound with no distortion. However, when I turned the distortion on, it again became too ‘dirty’ and the pitch material was still unclear. In an attempt to overcome this problem, I began experimenting with how I could use the volume pedal to control the amount of distortion.

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<sup>282</sup> Rage Against The Machine, "Evil Empire," (USA: Epic, 1996).



Figure 9: **Photo of how I execute string rubbing using my right hand middle finger.**<sup>283</sup>

Although I do not use a pick while string rubbing, the treatment of the note is very similar to tremolo picking and therefore we felt it would be best to leave the notes with their original tremolo markings. As I had never come across this string rubbing technique before (even in popular music), we decided that we would need to include an explanation for future performers regarding how to successfully achieve the desired sound. The score extract below displays our definition of string rubbing. This score dates from late 2006. By this stage Lentz had had his copyist include the definition at the bottom of the score but we then realised that we had not included any indication of when the performer would need to turn the distortion on to successfully achieve this sound (see bar 116).

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<sup>283</sup> Photo taken by Jy-Perry Banks, 13/10/11).

8

107

112

116

120

124

*ppp* *p* *ppp*

*mf* *pp*

*p* *pp* *p* *pp*

*Dist.* (rub string\*)

*ord.*

*rub string*

*pp* *p* *pp*

\*) gently rub the bottom E string with the fleshy part of the finger, in the direction of the string. The rubbing speed should be slightly irregular, faster in *cresc.* and slower in *dim.*

The image shows a page of handwritten musical notation for a string instrument, specifically focusing on the technique of 'Figure String rubbing'. The score is divided into five systems, each with a treble clef staff and a corresponding guitar-style fretboard diagram below it. The systems are numbered 107, 112, 116, 120, and 124. The notation includes various dynamic markings such as *ppp*, *p*, *mf*, and *pp*. There are also performance instructions written in the margins and above the staves, including 'Dist.', 'rub string\*', 'ord.', and 'rub string'. The fretboard diagrams show fingerings and positions, with some areas crossed out or heavily scribbled over, particularly in the 120-124 measure range. A footnote at the bottom explains the 'rub string' technique: '\*) gently rub the bottom E string with the fleshy part of the finger, in the direction of the string. The rubbing speed should be slightly irregular, faster in *cresc.* and slower in *dim.*'

Figure 10: Figure String rubbing

## 6.6.2 Aleatoric Pick Tapping

Not long after we had discovered string rubbing, we were working on the next recently composed section of *Ingwe* (what is now bars 139–160). Lentz had written several short melodies based on ascending and descending intervallic groups, which

were inserted between larger sections, comprised of a repeated, microtonally altered G, subject to crescendo and decrescendo. When I first played through this section for Lentz he seemed to think that the ascending and descending intervals were successful in terms of pitch material but needed some timbral or textural enhancement.

During this collaborative session, I played a semitone fragment of *Ingwe* and, without thinking began tapping with my plectrum over the pickups (past the fingerboard). As soon as I began tapping over the pickups, Lentz looked up and said, “What was that? That high tapping, glissandi thing, what was that, how did you do it?” I repeated what I had played and explained to Lentz how it was I achieved the high-pitched, pseudo-glissandi sound.

The beauty of this technique is that a player can achieve counterpoint on one string. This works because instead of plucking the string to sound the melody (fingered by the left hand), the player taps the same string which creates a second note that is usually an octave higher. The tapped note can be executed at any point between the left hand fingers and the bridge, however the best tapped sound is achieved between the end of the fretboard and bridge (over the pickups). Lentz was fascinated with this counterpoint and the aleatoric nature of the tapping. Due to the close proximity of these high pitches, it is virtually impossible to execute precise tones and semitones. Instead the player will sound a random set of microtonal pitches. Lentz was very impressed with our chance discovery and was keen to use this technique in *Ingwe*.



stage of *Ingwe*, the listener will have heard many pick-tapping passages and the technique may begin to sound tired and predictable (see Figure 14).



Figure 12: **Fret tapping using right hand middle finger.**<sup>284</sup>



Figure 13: **Pick tapping.**<sup>285</sup>

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<sup>284</sup> Photo taken by Jy-Perry Banks, 13/10/11.

<sup>285</sup> Photo taken by Jy-Perry Banks, 13/10/11.



Figure 14: Ingwe draft score extract, featuring Pick tapping. This is the first typeset version of the score to feature the ‘TTTTT’ symbol and the aleatoric pick tapping explanation (at the bottom of the score extract).

### 6.6.3 String Detuning

In late 2006, I demonstrated to Lentz the effect that detuning had on the sound coming from the amplifier and distortion pedal. Lentz then requested I detune the low E-string in order to see at which point there is barely any pitch, after hearing me

do this he said, “That’s sounds fantastic, what a great effect!” Lentz asked if I could strike the completely slack string as hard as possible with full distortion settings on my amplifier. In order to get more control over the execution of the note, we used a Bartok pizzicato to pull the E-string off the pickup and make sure that only the E-string sounded.

After our chance discovery, Lentz wished to hear the sonic transition from a regular pitched E-string played *pppp* to a Bartok pizz. played *fff*. For this experiment Lentz requested that I play steady crotchets (at 30 bpm) and slowly, but consistently detune my low E-string while gradually increasing both the volume and harshness of the articulation. We were both very impressed with the tones and timbre the detuned low E-string created especially the power and violence of the final “death blows” when the string was totally slack. We both agreed that it would be the perfect ending for a very dark and tormented composition and so Lentz and I discussed how to effectively notate it. As there is an element of chance when detuning a string we decided that it would be best to give an approximation of how low the string should be at a certain point rather than try to specify exact pitches on certain beats. For the final melody (bar 492–494 of the published score), the low E-string is detuned from E to D. From the D onwards there is a gradually descending line written on the score with downward pointing arrows, denoting the consistent crotchet rhythm. Lentz marks the beginning of the final phrase, *niente* and the ending to be *fff* - ‘like an infernal heartbeat!’ In the following score extract (first draft bars 505–520), Lentz has also written in specific dynamic marking in each bar of the grand crescendo so that it is measured and consistent.

2b

499

ord. dist. (\*\*\*)

p mf

503

ppp

pppp

niente

sh!

ord. (\*\*)

508

(1) (2) (3) (4) (5) (6)

cresc. ppp p mp mf f

514

(1) (2) (3) (4) (5) (6)

like an infernal heartbeat!

fff cresc.

\*) gradually tune low E-string down to D.  
 \*\*) gradually tune bottom string down until it is extremely loose and no longer produces a distinct pitch.

Figure 15: Final page of *Ingwe* score featuring the detuned E-string passage. The first detuned note (E-D) is in bar 505.

#### 6.6.4 Left Hand String Noise

During a collaborative session, again in late 2006, I was playing through a section Lentz had written which utilises the string rubbing technique. So that the

string rubbing technique can be effectively achieved, the majority of these melodies are fingered on the low E-string. As a result this requires many left hand position shifts. When I was playing through the excerpt for Lentz, I performed a very messy position shift that created a great deal of amplified string noise<sup>286</sup>. I apologised to Lentz for the sound that I thought ruined the relatively serene atmosphere of the excerpt, but, to my surprise Lentz remarked, “That was great. Don’t be afraid to make that sound there again.” Lentz felt that only certain intervals in some melodic, ‘string rubbing’ sequences should have left hand string noise as the technique had an impressive timbral quality when it was used as an effect, not continually.

Lentz and I assumed that any future performers of *Ingwe* may avoid creating left hand string noise during position shifts and would therefore need to be instructed as to when they should deliberately create this sound. We decided the most effective way of notating this technique would be to draw a line between the chosen notes pointing in the direction of the position shift; therefore a line with an upward gradient represented a position shift up the fingerboard and a line with a downwards gradient represents a position shift down the fingerboard (see Figure 16).

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<sup>286</sup> Left hand string noise is created (usually unintentionally) when a guitarist is moving from one position on the fingerboard to another but does not cleanly lift the left hand fingers off the wound bass strings. As a result their fingers rub against the metallic coils of the bass string creating a squeaky, wiry and metallic sound which can be very distracting for the listener.

Handwritten musical score for guitar, featuring several systems of notation with dynamic markings and performance instructions:

- System 1 (Measures 479-481):** Includes a treble clef staff with a key signature of one sharp (F#). Dynamic markings include *pp* and *ppp*. A bracketed section of the staff is heavily scribbled out.
- System 2 (Measures 482-485):** Treble clef staff with *ppp* dynamic. Includes a bass clef staff with a sequence of fret numbers: 9, 8, 12, 11, 9, 1, 3.
- System 3 (Measures 486-490):** Treble clef staff with dynamic markings *ord.*, *dist.*, and *mp*. Includes the instruction "rub string". A bracketed section of the staff is heavily scribbled out.
- System 4 (Measures 491-495):** Treble clef staff with dynamic markings *mf*, *ppp*, *mf*, *ppp*, and *f*. Includes the instruction "(scrape/rub string with the ...) pick finger pick finger". A bass clef staff with fret numbers 3, 5, 9, 7, 7, 8, 3, 5, 9, 13, 15, 19, 21, 21 is shown below.
- System 5 (Measures 496-500):** Treble clef staff with dynamic markings *fff* and *ppp*. Includes the instruction "rub string". A bracketed section of the staff is heavily scribbled out. A bass clef staff with fret numbers 22, 5, 4 is shown below.

A footnote at the bottom right reads: \*) loud, fast fret shift just before the note change

Figure 16: Fret noise

### 6.6.5 Violining

I had shown Lentz a technique called violining in our first educational collaborative session in 2005. This is best achieved when an electric guitarist plucks a note with their volume pedal/ volume knob (on the guitar) off, as a result, when this note is articulated there is no audible sound coming from the amplifier. Once the note has been plucked (in silence), the guitarist will then either depress their volume pedal or roll on their tone knob so that the now decaying sound of the note can be heard clearly through the amplifier. The appeal of this technique is that there is no audible percussive attack when the note is struck and the achieved sound similar to that of a violin. This technique of ‘violining’ has been perfected by pedal steel guitarists.<sup>287</sup>

Since 2005 I had always used a volume pedal when performing sections of *Ingwe*. This was mainly to achieve effective crescendo/decrescendo markings. It should be noted that although using the volume pedal to crescendo/decrescendo, I would still be articulating notes, which does not qualify as ‘violining’. In mid 2007 Lentz and I were working on the last few pages of the draft *Ingwe* score, in particular what is now bars 462–474 which feature successions of six-note block and cluster chords, each held for sixteen seconds; these series of chords are followed by sixteen seconds of silence. There are several sections in *Ingwe* that feature six note chord clusters that are to be articulated and allowed to ring until the notes fade. Lentz felt that towards the end of the composition, the listener would be very familiar with the sound of regularly strummed cluster chords. We began experimenting with different tones and found that a clean tone with full amplifier

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<sup>287</sup> Robert. L. Stone, *Sacred Steel: Inside African American Steel Guitar Tradition* (Chicago: University of Illinois Press, 2012), 58.

reverb created the perfect atmosphere for this sparse and meditative section. I played the section for Lentz, with this new tone and then out of interest played a few of the chords using the violining technique. My intention was not to impress Lentz with violining, but rather I was merely fulfilling my curiosity in emulating the sound of a pedal steel guitar.

Lentz was captivated by the eerie sound created when violining cluster chords. Silence plays an important part in Lentz's compositions and it was integral to this section of *Ingwe*. He felt that having these opulent sonic clouds appear and then drift across a vast canvass of silence was ideal with what he wished to aesthetically evoke in this section. It was then agreed that I was to 'violin' all of the chords in this part of *Ingwe*. We decided that in order to clearly explain this technique we would have a description of how to achieve the desired sound on both the technical explanations page (at the beginning of the score) as well as on the page where the violining technique was required. The chords remain written in usual manner but, there is a crescendo marked with a small circle denoting that the crescendo is to begin from *niente* (see Figure 17).

### **6.6.6 Ebow without Bottleneck Slide**

In both the final published and recorded version of *Ingwe* there is a very extensive section for Ebow<sup>288</sup> and bottleneck slide (bars 311–349). In the final draft score (2007), from which I performed both the unofficial Sydney premiere, the Ebow and slide are used for several short melodies amongst 'violined' cluster chords and

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<sup>288</sup> An Ebow (electronic bow) is a device held in the guitarist's picking hand as a substitute to a plectrum. When held over the string, the Ebow's electromagnetic field causes the string to vibrate resulting in infinite sustain, somewhat reminiscent of a bowed string instrument. For an image of an Ebow refer to section 6.7.3.7.

triple stopped pick tapped chords. This particular section of *Ingwe* received some of the most extensive reworking between the unofficial premiere, official premiere and the recording session as Lentz was not happy with some of the compositional material and how the section was structured. When Lentz and I met up after the unofficial premiere he felt that the Ebow slide section was not entirely convincing mainly due how the compositional material was structured. In order to enhance the climax of the section Lentz cut out four bars and linked the highest pitch of the section to a cacophonous series of open-string strums via a slow descending glissando. Up until this point, we had only ever seriously considered using the Ebow in conjunction with the bottleneck slide as this allowed us to easily create sostenuto microtonal lines. On this particular session, while we were experimenting with this Ebow section, Lentz asked out of curiosity, “Can you play this melody fingered, without the slide?” I did as he asked and Lentz was very happy with the sound. He later rewrote more of these melodic lines but decided to keep the Ebow without slide for this section (bars 471–484 of final published score).

All of these crucial developments in *Ingwe* were only possible because Lentz and I had regular face-to-face collaborative sessions. There is an immediacy, and tactile interaction that is only present in face-to-face collaborations; unfortunately even technologies such as Skype are no substitute for a composer and performer being in the same room and experimenting with compositional sketches. I understand that it is not always possible for composers and performers to regularly meet for face-to-face sessions but if they do not get many or any face-to-face sessions it may impact on the final composition.



24

463 *full Perm*  
clean  
pp

466  
\*\*\*)  
pp  
pp  
e-bow

469  
PPP  
ord.

472 *472 play*  
pp  
rub string

475  
e-bow  
PPP

\*) always fade in the notes from nothing to about *pp* and then let them die away naturally

\*\*\*) tap edge of pick on top 3 strings with irregular speed, shifting the tapping point between middle pickup and fingerboard

Figure 17: 2007 draft score featuring ebow (without slide) as well as triple pick tapping and cluster chords

## 6.7 The Learning Process (2007)

Although I had been involved with *Ingwe* since its inception as an electric guitar solo, it was not until mid-2007 that I began regularly practising large sections of the work, with the intention of performing the piece in its entirety. From 2005 to early 2007, I would learn small sections, (most often no more than two pages) as these small sections constituted the new material which Lentz had composed ahead of an arranged collaborative session. Once we had workshopped a particular section in our collaborative sessions, I would move on the next instalment of the work. On reflection, I can see that I did not invest much time in learning large portions of *Ingwe* during this period because I could see that the work was evolving and was likely to change.

On the 27 and 28 January 2007 I received the typeset first draft of *Ingwe*, pages 1–12. Lentz and I focused heavily on these first twelve pages in our collaborative sessions until 13 May 2007, when he emailed me the typeset first draft of pages 13–26. Our monthly collaborative sessions remained constant, but instead of receiving new sketch material before each session, I would receive corrections to sections we had looked at in the previous session. These sessions became intensive workshops in order for Lentz to hear what the first half of *Ingwe* sounded like in performance. Between 7/5/2007 - 13/5/2007 I received the typeset second draft of pages 1–12, accompanying these amendments was the following message from Lentz:

### 6.7.1.1 Lentz – (7/5/2007)

Hi Zane,

Here at last is the final score for *Ingwe*. Can you print these (and all following instalments) out and start practising them, and perhaps we can get together again after you've had a chance to learn them.

Now, of course if there are still tiny changes to be made (things that are not well written for the instrument etc) we can make the changes by hand, but this gives you something solid and final to sink your teeth into.

For the moment I have pages 1 to 10 only, but pages 11 to the end (page 26) are almost ready and should follow in the next few days.

Best wishes,

Georges<sup>289</sup>

Naturally this second draft was subject to change however, I now had an 'almost' finalised compositional structure/length which gave me an insight into how I could effectively learn and eventually perform such a gargantuan, unaccompanied, single movement work. In his article, *Developing an Interpretive Context: Learning Brian Ferneyhough's Bone Alphabet*, percussionist Steve Schick discusses his collaborative experience with Ferneyhough and the challenges he faced when ultimately trying to learn *Bone Alphabet* for performance. When I first read this paragraph I was amazed at how similar our experiences had been as I too had broken *Ingwe* down into

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<sup>289</sup> Personal correspondence with Georges Lentz on 7/5/2007.

small manageable sections which I could learn quickly and efficiently. Just like Schick, I carefully considered the practical performance logistics of each section and then worked towards a convincing and meaningful performance of the piece.

In the learning process, rhythms must be calculated and reduced to some portable form, the turbulence of the microforces of the form must be generalised, and various kinds of inane mnemonics must be employed to simply remember what to do next. An artificial skin of practical considerations must be stretched tightly across the lumps of a living, breathing piece. Performance reinflates the piece, fine tuning its formal gyroscope, reviving polyphonic structures, and packaging the intellectual energy of the score into meaningful physicality.<sup>290</sup>

## **6.7.2 Amendments and additions to pages 1-12 (second draft) which required special attention**

### **6.7.2.1 Bars 68–70**

*Technique employed in this section:*

Intricate scalar figures, notes fingered high on the fingerboard, block chord sequences, position shift across the 21 and left hand slurring

This passage was added by Lentz (circa March-April 2007) and includes the largest position shift in the entire composition (the upbeat to beat 3, high D in the 22<sup>nd</sup> fret to an F on the 1<sup>st</sup> fret) which required a great deal of slow methodical practice. These notes could have been fingered on other strings which would have avoided such a

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<sup>290</sup> S. Schick, "Developing an Interpretive Context: Learning Brian Ferneyhough's Bone Alphabet," *Perspectives of New Music* (1994): 133.

large position shift. However, this would have altered the tonal quality of the passage and so I decided to work only with the high E-string.



Figure 18: Bars 68–70

### 6.7.2.2 Bars 72–73

*Technique employed in this section:*

Intricate scalic figures, notes fingered high on the fingerboard, sweep picking.

This passage was added by Lentz (circa March-April 2007) and involves many of the same technical considerations which are seen in bars 68–70 (second draft).



Figure 19: Bars 72–73

### 6.7.2.3 Bars 84–86

*Technique employed in this section:*

Intricate scalic figures, notes fingered high on the fingerboard, left hand position shifting and string skipping.

This passage was added by Lentz (circa March-April 2007). This section features the widest string skipping passage in the whole work. The low B is fingered on the 19<sup>th</sup>

fret of the low E-string and the high C is fingered on the 20<sup>th</sup> fret of the high E-string. Beat 1 of bar 86 also requires tremolo picking and it is very difficult to string skip over 4 strings and instantly begin executing a clean tremolo.

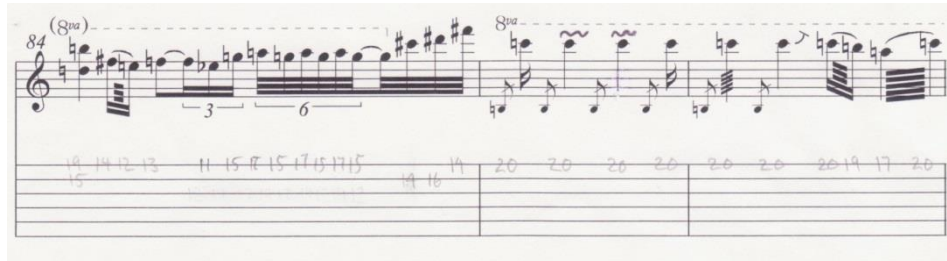


Figure 20: **Bars 84–86**

#### 6.7.2.4 Bars 202–224

*Technique employed in this section:*

Natural harmonics, stamina and endurance while string rubbing and aleatoric pick tapping.

String rubbing and aleatoric pick tapping are both techniques which are easy to execute. However, when they are used for extended periods of time it can place great strain on the player's right forearm. In this instance, I needed to experiment with the minimum amount of effort needed to achieve the desired sound and I was always conscious of any unnecessary tension which may begin to accumulate.

12 insert 2

203 rub string 2-1 p ppp p

208 ord. rub string mf mp pp

213 rub string p pp ord. rub string mp ppp

218 (scrape/rub string with the ...) pick finger pick finger --- mf ppp mf sub. ppp ppp

223 mp pp rub string mp

\* loud, fast fret shift (left hand), just before the note change

\*\* tap edge of pick on top E string with irregular speed, shifting the tapping point slowly between the middle pickup and fingerboard

Figure 21: Bars 203–224

### 6.7.3 Sections in pages 13–26 (first draft) which required special attention

On 13/5/2007 I received pages 13–26 from Lentz, accompanied by the following email:

Hi Zane,

You should have the whole piece now, all the way to page 26.

Have you had a chance to work on it yet? Let me know when would be a good time from your point of view for us to get together, after you've done some work on it and want to play for me.

Look forward to hearing from you,

Georges<sup>291</sup>

I undertook the same learning process with pages 13–26 as I had with pages 1–12. Pages 13–26 are more technically and physically taxing than pages 1–12. The majority of the demanding sections contained within pages 13–26 feature the same techniques used in pages 1–12, such as tremolo picking, stamina/endurance, intricate scalic figures, notes fingered high on the fingerboard, left hand position shifting, string skipping, sweep picking, and block chord sequences. However, in pages 13–26 these techniques are used in extended periods with little or no time to rest or prepare for the next gruelling passage. Pages 13–26 feature the combination of Ebow and bottleneck slide for the first time, which took a great deal of logistical preparation and technical practice. The following are the sections from pages 13–26 which required the most attention during the learning process.

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<sup>291</sup> Personal correspondence with Georges Lentz, 13/5/07.



### 6.7.3.1 Bars 256–273

*Technique employed in this section:*

Microtonal string bending requiring endurance.

This passage is similar to that of the microtonal G-G#/block chords featured in bars 138–164. Bars 256–284 require the guitarist to bend a D (on the B-string) microtonally up to a D# and once the note is reached, to strike the block chord several times. The B-string must be pulled downwards so that strings 6–5–4–3 can ring freely when struck. The notes in the chords require the third and fourth fingers on the left hand to execute the bend while fingers one and two fret notes on the A and D-strings. This section requires substantial long-term practice to avoid injury and build stamina.

The image displays a musical score for guitar, specifically focusing on bars 256 through 273. The score is presented in three systems, each with a musical staff and a corresponding guitar fretboard diagram below it.

- System 1 (Bars 256-261):** Starts at bar 256. The musical staff shows a sequence of chords with a "very gradual gliss. up to D#" instruction. The fretboard diagram shows the B-string being bent from the 2nd fret to the 3rd fret. Fingering is indicated as 4+3 for the first chord, and (1), (2), (3), (4), and (5) for the subsequent chords. Dynamics include *cresc.*, *poco*, *a*, and *poco*.
- System 2 (Bars 262-267):** Continues the sequence with bars 262, 263, 264, 265, 266, and 267. The musical staff shows a "very gradual gliss. down to D" instruction. The fretboard diagram shows the B-string being bent from the 3rd fret back to the 2nd fret. Fingering includes 4+3, 0, 2, 1, 0, and (1). A *fff* dynamic marking is present.
- System 3 (Bars 268-273):** Continues with bars 268, 269, 270, 271, 272, and 273. The musical staff shows a "very gradual gliss. down to D" instruction. The fretboard diagram shows the B-string being bent from the 2nd fret back to the 1st fret. Fingering includes (2), (3), (4), (5), and (1). A *dim.* dynamic marking is present.

Figure 22: Bars 256–273

### 6.7.3.2 Bars 323–359

*Technique employed in this section:*

Ebow and Bottleneck slide.

This section is rather serene and features the sparse sound of a sustained microtonal line. What makes this section difficult is the subtle and somewhat unpredictable nature of the Ebow. The player must prepare by spending a significant amount of time experimenting with how the Ebow works and how it reacts to different notes and strings. Some notes are difficult to sound and others will unintentionally surge in volume. To complicate matters, Lentz specifies *ppp* for the dynamics (with subtle crescendo/decrescendo) in this section; the player is required to skilfully use the volume pedal at the same time as being mindful of how close they place the Ebow to the neck pickup (to avoid a surge in dynamics).

Bars 332–341 also require use of the Ebow and feature very intricate scalic passages fingered across multiple strings. It is difficult to execute fast cross-string passages such as these with an Ebow as there is a slight millisecond delay between the time the Ebow is placed on the string and the sounding of the note. These passages are followed by a substantial crescendo while sliding to a D on the high E-string. This is followed by a slow glissando back down the fret board at *fff* and it is not uncommon for the descending glissando to momentarily cut out at this point. This temporary dying of the glissando is due to the fact that it is executed very high on the fingerboard and as a result, very close to the Ebow which effects the vibration of the string. As the glissando gradually moves down the high E-string the Ebow may activate certain partials of different notes, however, the partials can change from performance to performance

depending on volume and distortion levels.<sup>292</sup> In mid-November 2007, Lentz cut bars 338–342 and extended the sustained descending glissando. The descending glissando from D to Ab lasts approximately 18 seconds and is immediately followed by a *fff* strum on all six strings which lasts for approximately three-five seconds, which allows the guitarist to turn the Ebow off and place it on a stand (the Ebow is required later in the composition and if it is left switched on the battery may die) as well as pick up a plectrum which is required to perform an extended pick scrape.

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<sup>292</sup> Refer to track 5, 2'01"–3'25" of my Naxos recording of *Ingwe* to hear the high Ebow gliss, note cut out and upper partial sound – transition to pick scrape with bottleneck slide – transition to aleatoric pick tapping. Lentz, "Ingwe from 'Mysterium' ('Caeli Enarrant...' Vii) for Solo Electric Guitar (2003–2009) Performed by Zane Banks."

332 *sh!!!* 17  
*pp* (*p* *sempre simile*)

335 *sh!!!* *gliss.* *long!!!*  
*ppp* *fff* *very long!*

338 *sh!!!* *gliss.* *gl. gliss.*

341 *gliss.* *pick scrape & slide \**  
*ppp* *plucked* *(fff)* *(let ring)*

344 *!! much longer* *plucked* *scrapeslide* *w/ 5/8 dge pick up* *TTTTTT*  
*fff* *(let ring)* *fff*

\*) scrape the bottom E-string with the edge of the pick, approximately in the shape of the line, and follow the same contour with the slide

Figure 23: Bars 332–346

### 6.7.3.3 Bars 363–463

*Technique employed in this section:*

Microtonal string bending, tremolo picking, intricate scalar figures, notes fingered high on the fingerboard, left hand position shifting, left hand slurring, string skipping, sweep picking, block chord sequences.

This is the most technically demanding section of *Ingwe*. It is a relentless onslaught of notes and physically demanding techniques with little or no time for rest or preparation between phrases. Bars 363–368 requires considerable left hand finger dexterity and right hand picking coordination.

19

363

3 5 4 6 8 7 6 6 7 8 6 5 7 6 6 8 7 6 5 5 6 5

364

5 5 6 6 3 4 5 6 3 5 7 0 5 6 6

365

6 4 9 3 9 7 10 13 0 13 0 14 10 11 16 18 22 2 5

Barre 6 ft

367

8 6 3 0 4 2 0 5 7 9 13 11 15 0 0 13 15 0 0 12

Figure 24: Bars 363–369.

The image shows two systems of handwritten musical notation for guitar. The first system begins at bar 380. The top staff is a treble clef with a key signature of one flat and a 4/4 time signature. The first few bars are heavily scribbled over with a large, dark, diagonal line. The bottom staff is a guitar tablature with fret numbers: 4, 4, 18, 18, 0, 0, 16. The second system begins at bar 385. The top staff continues the melodic line with various slurs and accents. The bottom staff is a guitar tablature with fret numbers: 5, 5, 2, 5, 5, 1, 0, 2, 2, 3, 3, 2, 7, 3, 3, 2, 7, 3, 4, 4, 4, 3, 7, 4, 4, 2, 5, 2, 5.

Figure 25: **Bars 381–415 feature continual left hand slurring over wide intervals (this equates to big left hand stretches) and is extremely tiring for the fingers and forearm.**



22

417

422

427

432

(S) (G)

Free improvisation

\*\*\*

(ca. 90"-120" of improvisation, departing gradually from the established pattern, becoming more and more virtuosic, fast, noisy, frantic, overwhelming, desperate!! There must be continuous sound - no rests!

Figure 26: Bars 420–429 features 1’30” of continuous tremolo picking which is a feat of endurance and may potentially cause muscular injury if the player has not undertaken extensive preparation to gradually build up their stamina.

Throughout the majority of the creative and collaborative process I had almost exclusively used the same equipment (Gibson S.G. guitar and a Marshall amplifier). While experimenting with new instalments of *Ingwe*, Lentz and I never formally discussed which would be the most suitable guitar or amplifier for *Ingwe*. Overall, Lentz seemed pleased with the tone I was consistently achieving throughout the collaborative process and so it was decided that we would use this same equipment for the unofficial Sydney performance as well as the Luxembourg premiere (an amplifier



was hired for this performance). The following gear has been used for the performances of *Ingwe* to date, as well as the Naxos recording session.

I would like to address an issue raised in Chapter 4 regarding how specific a composer should be when writing for electric guitar regarding the use of effect pedals, amplifiers, electric guitar models and pickups. In section 4.7.2 of this thesis, composers such as Gavin Bryars and Steve Mackey compared composing for the electric guitar with composing for the pipe organ. A comparison was made as these composers felt that both instruments had many variables regarding tones, textures and timbres. Composer-performer Tim Brady remarked that, “the really big advantage of the electric guitar is that it is an incredible timbral chameleon. With a few foot pedals you can have more timbral and dynamic variation than the entire orchestra”.<sup>293</sup> In section 4.8.2 of this thesis, Daryl Buckley was adamant that composers not be too specific with certain equipment (effect pedals, amplifiers and guitar models) when writing for the guitar.

I understand that some of the comments composers made in Chapter 4 regarding effect pedals, amplifiers and guitar models may seem conflicting. To eliminate any confusion, I will discuss how Lentz and I came to choose the gear used for the performance and Naxos recording of *Ingwe*.<sup>294</sup> From our first collaborative session, Lentz had a very strong idea about the type of guitar tones and sounds he wanted for *Ingwe*. Lentz knew what distortion and wah-wah pedals were, however he was unfamiliar with other types of effect pedal, pedal brands, amplifier models and electric guitar models (apart from the Fender Stratocaster and Gibson Les Paul). Lentz would

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<sup>293</sup> Personal correspondence with Tim Brady, 22/7/11.

<sup>294</sup> Sections 6.7.3.4 – 6.7.3.8 contain detailed explanations about the gear used on the Naxos recording and live performances of *Ingwe*.

ask me to play melodic passages and while I was playing he would use descriptive language so that I could mimic the sounds he was hearing in his head. Some of these descriptive phrases made their way into the published score of *Ingwe*. Some examples are:

“Fragile, hazy” (bar 312)<sup>295</sup>

“Like clouds drifting in a sea of silence” (bar 462)<sup>296</sup>

Lentz would also use standard musical terms such as *sul tasto* and *sul ponticello* to describe the sound he wanted. After the first few collaborative sessions, I was developing a good idea of the tones, textures and timbres which Lentz wanted for *Ingwe*. We had experimented with several main electric guitar models such as a Fender Stratocaster, Fender Telecaster, Gibson Les Paul, Gibson S.G. and a Gibson 335 as well as different amplifier models such as a 40 watt Marshall Valvestate combo, 40 watt Fender Deluxe and a 40 Line 6 Spider. As well experimenting with the amplifier distortion channels we also tried an Ibanez TS9 Tube Screamer and a Boss DS1 through each of the said amplifier’s clean channels.

Lentz was drawn to the harsh, biting sound of a Gibson’s ‘bridge’ humbucker pickup running through the Marshall’s distortion channel. He felt that this combination had a rawness to it which perfectly captured the aggressive and tortured sound he was hearing for *Ingwe*’s distorted sections. For *Ingwe*’s calm, quiet and reflective sections, Lentz felt that a Gibson’s ‘neck’ humbucker pickup running through a Marshall’s clean channel was ideal. Lentz preferred both the clean and distorted tones to be played with

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<sup>295</sup> Georges Lentz, "Ingwe from 'Mysterium' ('Caeli Enarrant...' Vii) for Solo Electric Guitar (2003–2009)," (Vienna: Universal Edition, 2011), 15.

<sup>296</sup> Ibid., 23.

an amp setting of ‘full reverb’. However this is not mentioned in the score as it was something that Lentz and I settled upon at soundchecks for later performances of *Ingwe*. Of the three Gibson guitars I explored with Lentz, I chose to use the S.G. for its unique double cutaway and its light weight (refer to 6.7.3.4 for more information on my Gibson S.G.).

Lentz and I both felt that it would be unwise to specify that *Ingwe* could only be played using a Gibson S.G. running through a Marshall amplifier. We knew that each electric guitarist who looked at the *Ingwe* score would have different gear and by stating that the work could only be played on a Gibson S.G. and Marshall amplifier, it would limit the amount of possible future performers for the work. As a result Lentz wrote:

*Ingwe* is written for a regular six-string electric guitar, fitted with a volume pedal, a distortion pedal and at least one high quality amplifier. No tremolo arm (whammy bar) required.<sup>297</sup>

We also decided that it would be best to write the tone needed for each section rather than set specific tone settings (for either amplifiers or pedals). As the Naxos *Ingwe* recording is in the public domain, Lentz and I felt that future performers could use this source and the score markings to make an informed decision about an appropriate tone. For example, the tone and stylistic indication for the beginning of *Ingwe* is:

*dist.*<sup>298</sup> always with great pain and with a blazing sound<sup>299</sup>

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<sup>297</sup> Ibid., preface.

<sup>298</sup> ‘Dist’ refers to ‘with a distorted tone’.

<sup>299</sup> Lentz, "Ingwe from 'Mysterium' ('Caeli Enarrant...' Vii) for Solo Electric Guitar (2003–2009)," 1.

Once the premiere of *Ingwe* was over (see section 6.8) Lentz wanted to record the work as he felt that the performance was extremely faithful to what he had originally envisaged. In the *Ingwe* score, Lentz had not requested specific equipment be used, nor had he demanded specific tone settings; he felt that recording the work would enable future performers to gain a clear understanding about the tones, textures, timbres and interpretation which he had intended for the work (refer to 6.9 for more information on the recording process). Not every composer will be in a position where they can have a faithful interpretation of their work recorded. I would suggest writing a preface to the score which outlines the types of sounds the composer would like as well as making possible suggestions about gear that could be used, perhaps even offering ‘suggested’ tone settings.

An example of a work which features a very detailed preface is Fausto Romitelli’s, *Trash, TV, Trance*. Romitelli and performer-collaborator Tom Pauwels dedicate five pages at the beginning of the score to discussing examples of the types of gear which could be used in a performance of the work. Included in the preface is a list of features the electric guitar model must have (such as a whammy bar), list of the desired features the amplifier should have, list of the utensils required for extended techniques (e.g. electric shaver and dishwashing brush) and the types of effects pedals needed for the performance; for each pedal type there is a suggested brand and model as well as a suggested tone setting. The following four pages have an almost bar-by-bar explanation of what the guitarist is to do and how they are to achieve it, for example:

Bar 54: Stamp knob B of the LS [Loop Sampler] to stop the new loop on the down beat and start brushing at the same time the strings circularly with the

sponge whilst making a toe down movement with the WW [Wah-Wah] and back to heel position in the prescribed rhythm.<sup>300</sup>

The technical prefaces in the scores for *Ingwe* and *Trash, TV, Trance* represent both writing very little, except the technical essentials (*Ingwe*), and writing in explicit detail (*Trash, TV, Trance*). I recommend that for a composer whose composition has not been recorded, they add more detail in their preface but are careful to make sure that they are not too dogmatic about specific gear and gear settings as they may find that this might put players off playing their work. It is fair to request some essential technical/gear items but the composer should keep in mind that some guitarists may still play these compositions with whatever equipment they own. Ideally the preface should be there to help the player understand what the composer wants; it should not be a list of strict rules, instead it should contain helpful suggestions about how to achieve the desired tones, textures, timbres and extended techniques.

#### **6.7.3.4 Gibson SG Electric Guitar (2006)**

I believe the Gibson S.G. is a perfect choice for *Ingwe* as it is a double cutaway guitar with unobstructed access to the 22<sup>nd</sup> fret, allowing me to execute all high passages without striking my wrist accidentally on the body of the guitar. The instrument is fitted with standard Gibson humbucker pickups (I mainly use the bridge pickup) which can tolerate a considerable degree of distortion. As a result of using a Gibson SG, *Ingwe* is now synonymous with the harsh and biting bridge pickup sound,

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<sup>300</sup> Fausto Romitelli, "Trash Tv Trance," ed. Tom Pauwels (Milano: Universal Music Publishing Ricordi, 2002), VI.

perfect for expressing a sense of pain and desperation. The S.G. (*Ingwe* guitar) pictured is now in retirement, I am now using a Gibson USA S.G. 1961 re-issue.



Figure 27: USA Gibson S.G. The *Ingwe* Guitar

#### **6.7.3.5 Marshall 8040 – 40 Watt Valvestate ‘Combo’ Amplifier + Footswitch (1995)**

The combination of a Gibson electric guitar, fitted with humbucker pickups and played through a Marshall amplifier has long been associated with hard rock and heavy metal genres of music. Marshall amplifiers are also known for their classic overdrive and distortion tone which was perfect for *Ingwe*. I had warned Lentz during our early educational phase that when a player is playing through an amplifier with full distortion

it may be impossible for the listener to recognise any pitch. Lentz found that although the Marshall was capable of achieving the amount of distortion he desired, he could still hear the pitches of each note in the heavily distorted *fff* cluster chord sections.

In 1999, I purchased two second hand 1995 Marshall 8040 – 40 Watt Valvestate ‘Combo’ amplifiers. I have found that these amplifiers are perfect for performing ‘new music’ on the electric guitar as they are light/compact, have a very fine amplifier distortion tone and also feature spring reverb. It is for this reason that I used this model amplifier on the Naxos recording session of *Ingwe*. When I performed and recorded *Ingwe* I did not use any effects pedals, only the amplifier footswitch, as Lentz and I found that the clean and distorted tones contained within Marshall amplifiers were ideal.



Figure 28: 1995 Marshall 8040 – 40 Watt Valvestate ‘Combo’ Amplifier

Problems arise when performing *Ingwe* in other cities as one cannot necessarily count on being able to hire a Marshall 8040. For the Luxembourg premier, the closest Marshall amplifier model that the Philharmonie could hire was a 100 Watt Marshall AVT (Advanced Valvestate technology). This amplifier is essentially the ‘big brother’ version of the 8040. When I performed a section of *Ingwe* at the 2009 Melbourne International Arts Festival I used a Marshall JCM 900 Stack.<sup>301</sup> As previously mentioned, this performance took place in a very large neo-gothic cathedral and so I needed the power of a stack to fill the building. At the Vale of Glamorgan Festival (2012) I used a Marshall JCM 2000 half-stack (see Figure 30).

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<sup>301</sup> I have used a Marshall JCM 2000 half-stack when I performed *Ingwe* at the 2012 Vale of Glamorgan Festival.



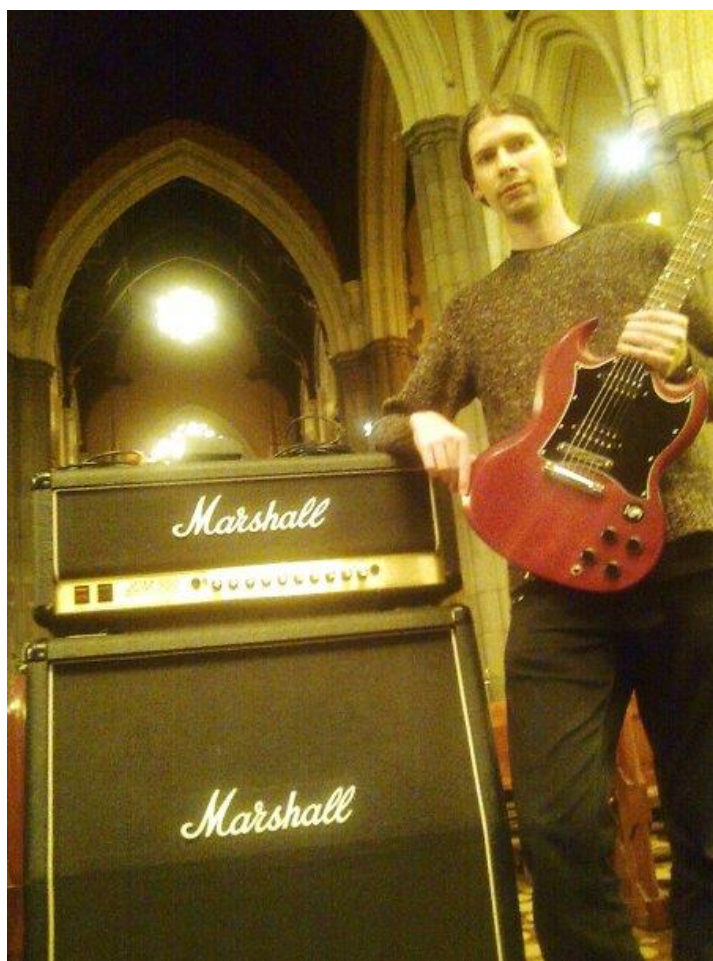


Figure 29: Sound checking *Ingwe* on 14/10/09 at St Patricks' Cathedral Melbourne as part of the 2009 Melbourne International Arts Festival. Due to the size of the Cathedral a Marshall JCM 900 half-stack amplifier was used.<sup>302</sup>

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<sup>302</sup> Photograph taken by Jy-Perry Banks, 14/10/09.



Figure 30: Sound checking *Ingwe* on a Marshall JCM 2000 half-stack at the 2012 Vale of Glamorgan Festival in Cardiff, Wales.<sup>303</sup>

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<sup>303</sup> Photograph taken by Jy-Perry Banks, 5/5/12.

### 6.7.3.6 Vox V850 – 250 K Audio Taper Volume Pedal

For performances of *Ingwe* between 2007–2009, as well as the Naxos recording, I used a Vox V850 volume pedal (see Figure 31).



Figure 31: Vox V850 – 250 K Audio Taper Volume Pedal

### 6.7.3.7 Heet Sound Products - Ebow 'Plus' Model

This is the industry standard model Ebow.



Figure 32: **Ebow ‘Plus’ model**

### **6.7.3.8 Metal Bottleneck Slide**

I usually prefer using glass bottleneck slides. However, they are very fragile and I realised that they could accidentally get smashed in-transit or even in-performance. As a result I decided to use a metallic bottleneck slide for performances of *Ingwe* as well as during the Naxos recording session.

## **6.8 The unofficial premiere of *Ingwe***

The final performance detail that Lentz discussed with me was the gestural aspect of my performance. He was adamant that he did not want me to play in a dinner suit (as I would for a solo classical guitar recital) nor follow standard classical recital etiquette as he believed it would look ridiculous for an unaccompanied electric guitar work of this nature. Instead he asked me to wear what I would normally wear when playing a rock gig at a club (black jeans or leather pants, black shirt and gym boots) and to perform the work as if I were playing an extended solo at a rock club. I had Lentz’s full permission to ‘go for it’ and ‘don’t hold back’ when performing *Ingwe*. We felt that by embracing the vernacular customs of rock guitar performance practice, a performance of *Ingwe*, may be accessible to a wider audience demographic which we hoped would be comprised of both high and low art enthusiasts. This concept was discussed in Chapter 4 (refer to section 4.7.2.), I have since had a great deal of positive feedback from audience members after subsequent *Ingwe* recitals who feel that my choice to perform in regular clothes and embrace vernacular/popular elements of Western culture is exactly what

contemporary classical music needs if it wants to appear to be ‘relevant’ as well as attract interest from younger generations and the general populace (see Figures 33–34).



Figure 33: **Photo of me performing the UK premiere of *Ingwe* at the 2012 Vale of Glamorgan Festival in Cardiff, Wales.<sup>304</sup> For all performances of *Ingwe* I have worn similar clothes and always embraced the ‘rock’ aspects of the electric guitar.**

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<sup>304</sup> Photograph taken by Jy-Perry Banks, 5/5/12.



Figure 34: Photo of me performing *Ingwe* at the Aurora New Music Festival in Sydney, Australia on 12/5/12.<sup>305</sup>

The unofficial Sydney performance was recorded on DAT (not for public release) by the Sydney based sound engineer, Matthew McGuigan (b. 1984) in order to give Lentz and I an idea of how *Ingwe* sounded in a concert hall, at the intended volume. McGuigan sent me a copy of the recording a few days later and I found it very beneficial in my preparation for the official Luxemburg premiere. Although nothing had gone seriously wrong during the Sydney performances, I could now hear where I needed to be more aware of my use of the volume pedal and how I needed work on my gradual crescendo/decrescendo in the lengthy microtonal bend sections. Overall I was

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<sup>305</sup> Photograph taken by John Humphreys, 12/5/12.



very happy with the Sydney performance as was Lentz and the day after the performance he sent me the following email:

#### **6.8.1.1 Lentz – (22/11/2007)**

Hi Zane,

A huge bravo once more for your stunning performance last night. I could not have wished for a better ambassador for my music! Thank you!<sup>306</sup>

Following this informal performance of *Ingwe*, Lentz asked to meet with me so that he could talk through a few minor changes he had made. This meeting was not a formal session as I did not even have my instrument with me: by this stage Lentz was so well versed with writing for the electric guitar that he had made all the adjustments before we met and he only asked me for my opinion on the idiosyncratic nature of the alterations equating to the 1.1 model of collaboration in chapter 4. These alterations were all perfectly playable and once Lentz wrote them on my score I set aside time over the following week (before I flew to Luxembourg) to familiarise myself with them.

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<sup>306</sup> Personal correspondence with Georges Lentz, 22/11/07.



Figure 35: Rehearsal for the world premiere of *Ingwe* at the Luxembourg Philharmonie  
(7/12/2007)<sup>307</sup>



Figure 36: Rehearsal for the world premier *Ingwe* at the Luxembourg Philharmonie  
(7/12/2007)<sup>308</sup>

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<sup>307</sup> Photo taken by Jy-Perry Banks, 7/12/07.

<sup>308</sup> Photo taken by Jy-Perry Banks, 7/12/07.



The world premiere of *Ingwe* was very successful, and just as in the Sydney performance, was free from any technical malfunctions. As a performer, I felt considerably more settled during the world premiere than I did in the Sydney performance, as by the time of the premiere I knew for sure that it was possible to perform *Ingwe* in its entirety without any technical issues. After the performance, I was overcome by a sense of achievement as I could see that the extensive collaborative process Lentz and I had undertaken in 2005 had been a success.

## **6.9 The Recording Process (2008-2010)**

In 2002, Lentz's compositions *Ngankar* and *Guyhmgan* were released internationally on Naxos records. Since early 2007, when *Ingwe* was taking shape, Lentz mentioned that, once the premiere was over, we would book some studio time in order to record the whole work. A big incentive to record *Ingwe* was that the founder and CEO of Naxos Records, Klaus Heymann had mentioned to Lentz in 2007, that Naxos would like to release the album internationally after it had been recorded. Once the premiere was over Lentz and I remained in frequent email contact regarding the logistical arrangements of organising a recording session however, we did not have any face-to-face preparative recording-rehearsals. By this stage I was very familiar with *Ingwe* and knew what Lentz wanted regarding tone, phrasing, articulation and interpretation. From late December 2007 to February 2008 I maintained my daily *Ingwe* practice session so that I would be in good condition for the recording session.



Figure 37: McGuigan's recording equipment.<sup>309</sup>

### 6.9.1 Technical Considerations in the Recording Process

There were several technical issues which arose during the *Ingwe* recording sessions, some of which Lentz, Matthew McGuigan (*Ingwe* recording engineer) and I had not anticipated. The first problem we encountered involved equipment setup. After each day of recording in the recital hall we were required to pack up our gear and then set it all up again at the next recording date. Not only did this affect the actual amount of time we had to record but it also raised significant issues regarding 'sound matching'<sup>310</sup>; we wanted each session to sound as similar as possible so that during the mixing and mastering process we would not be faced with the problem of sorting through takes with differing levels or distinctly different sounds. At the very first session, once I had set up and we had agreed on suitable levels, McGuigan and I

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<sup>309</sup> Photograph taken by the Matthew McGuigan, 9/2/08.

<sup>310</sup> Refer to appendix C: Matthew McGuigan's recount of the *Ingwe* recording process. Personal correspondence with Matthew McGuigan, 28/8/11.

photographed the whole set up (see figure) so that we could keep the microphone placement, amplifier placement and amplifier tone knob settings exactly the same for each recording session. Although, the Marshall amplifiers which I used achieved the desired sound, they were not in the best condition, due to years of gigging. As a result, many of the tone controls were missing their knobs or the paint indicating which setting the tone control was set to had rubbed off (see Figure 40) – “It (sound matching) was made that much more difficult by Zane's amp which was not in the best state of repair and had all its marking rubbed off so there was no way of telling where the knobs were pointing.”<sup>311</sup>



Figure 38: McGuigan checking levels during the set up process of an *Ingwe* recording session.<sup>312</sup>

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<sup>311</sup> Matthew McGuigan. Refer to Appendix C: Matthew McGuigan’s recount of the Ingwe recording process. Personal correspondence with Matthew McGuigan, 28/8/11.

<sup>312</sup> Photograph taken by the author, 15/2/08.

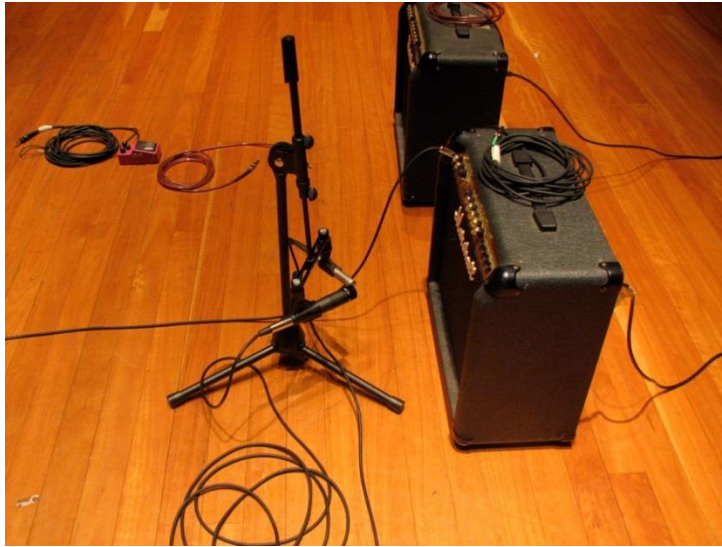


Figure 39: This photo was used as one of our main ‘sound matching’ references for microphone configuration and placement in relation to the amplifier. McGuigan placed the Shure SM57 Dynamic and Rode NT55 Small Diaphragm Condenser microphones in a ‘pseudo’ XY configuration ten inches from the amplifier.<sup>313</sup>



Figure 40: Clean channel of my 40 Watt 1995 Marshall 8040 Valvestate Amplifier. Note the missing treble knob and rubbed off marking on the middle tone knob. The gain channel was in a similar state of disrepair.<sup>314</sup>

<sup>313</sup> Photograph taken by the Matthew McGuigan, 9/2/08.

<sup>314</sup> Photograph taken by the Matthew McGuigan, 9/2/08.

McGuigan found that it was best to use a Shure SM57 dynamic microphone and a Rode NT55 small diaphragm condenser microphone when ‘close mic-ing’ the amplifier as this successfully “captured the whole frequency spectrum of the guitar.”

McGuigan explains:

SM57 and NT55 were placed approximately 10 inches from the speaker with their capsules very close together and angled at 90 degrees towards each other. The use of two different microphones was employed to help capture the whole frequency spectrum of the guitar. The dynamic microphone responds more to the mid frequencies and the condenser fills in the upper and lower frequencies. Angling them both, in a pseudo XY pattern, meant that both were picking up the signal slightly off axis which is somewhat duller than straight on. A highly distorted guitar can be quite harsh in the high frequencies and this arrangement combats this issue. Using two close mics also allowed the phenomenon of phase cancellation and enhancement to be used to our advantage by making sure the positioning of the two capsules minimised cancellations and maximised enhancements.

To capture the room sound McGuigan used two Josephson C42 small diaphragm condenser microphones in a “ORTF stereo configuration approximately 8 metres away from the amp, 6 feet in the air and angled slightly towards the floor (see Figure 41).”<sup>315</sup>

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<sup>315</sup> Matthew McGuigan. Refer to Appendix C: Matthew McGuigan’s recount of the Ingwe recording process. Personal correspondence with Matthew McGuigan, 28/8/11.





Figure 41: **This photo was taken during last minute level checks and shows the placement of both the SM57 dynamic microphone and Rode NT55 small diaphragm condenser microphones (amplifier mics) and the two Josephson C42 small diaphragm condenser microphones (room mics).**<sup>316</sup>

Lentz was present at all the recording sessions (sitting in the live room). During each take I recorded, he sat and score read, marking sections where I made mistakes so that we knew what needed to be re-recorded. It was extremely beneficial having Lentz at the sessions as although we had spent several years working very closely together on *Ingwe*, the fact that we were in the same room while I was recording meant that I could consult him regarding how he wanted each section performed as well as receive feedback from him after each recording take. In some cases it is not possible for the composer to be present during the recording process however, if there is the chance that the session could be configured so that the composer can be present, I would strongly urge performers to consider this. There is no substitute for the composer's opinion, especially if, in the case of *Ingwe*, it is a world premiere recording. If the composer and

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<sup>316</sup> Photograph taken by the Matthew McGuigan, 16/2/08.

performer live on opposite sides of the world, they too can be in instant contact, through various forms of technology and recorded demos can be emailed to the composer after each session.



Figure 42: Photo used as the main reference for where to set up my music stands and McGuigan's recording equipment.<sup>317</sup>



Figure 43: Lentz and I discussing the take which I had just recorded.<sup>318</sup>

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<sup>317</sup> Photograph taken by the Matthew McGuigan, 9/2/08.

As an example of the influence of performer/composer collaboration on musical outcomes, after the first recording session, Lentz decided to revise parts of the quiet, meditative middle section of Ingwe (116–359). The day before our second recording session, in which we were attempting to record this section, Lentz sent me the following email and hand written sketch (see 6.9.1.1. and Figure 44). As per usual when I was sent any new instalments or corrections he would also call me on the phone to talk me through the changes. These adjustments were all relatively minor and although I was sent them 24 hours before the scheduled recording session, I was able to successfully integrate them into the score.

#### **6.9.1.1 Lentz – (14/2/2008)**

Hi Zane,

A couple of changes for tomorrow's recording session:

- bar116/beat1 AND bar121/beat4: add lower 3 open strings
- between bar 183 and bar 184: add "insert 1" (see attachment)
- delete bar 200/beat 4 and all of bar 203, and replace with "insert 2" (see attachment)
- delete bar 221
- delete bars 224 - 229
- bar 235/beat4: semi-breve, not crotchet

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<sup>318</sup> Photograph taken by the Matthew McGuigan, 15/2/08.



- bars 354 - 359: stretch these bars, making them last at least twice as long

That's all until the start of next distorted section.... hope it all makes sense! I

heard the recordings from last week - they sound excellent! See you tomorrow at about 8.45am!

Georges<sup>319</sup>



Figure 44: Lentz's hand written sketches accompanying his email (14/2/2008). These detail the amendments which needed to be made to bars 116–359 ahead of the second *Ingwe* recording session.<sup>320</sup>

As another example of technical considerations in the recording process, when the time came to record the 'violining' section (bars 462–475) we were presented with a new issue regarding the microphone sensitivity. In this section which lasts 6'29", Lentz wrote on the score, 'like clouds drifting in a sea of silence', for the technical explanation of how to achieve this effect he wrote, 'always fade in the notes from nothing to about *pp* and then let them die away naturally'. This section is not difficult to perform but

<sup>319</sup> Personal correspondence with Georges Lentz, 14/2/08.

<sup>320</sup> Personal correspondence with Georges Lentz, 14/2/08.

when we were recording these bars we found that the microphones (mainly the room mics) were picking up the audible acoustic sound of me plucking the strings (with my volume pedal off). In order to muffle the sound of me articulating the chords we had to record this section last and change where I was sitting (the amp and mic placements remained the same). We built a pseudo isolation booth out of several sound bafflers in the far left hand corner of the hall (I set up facing the wall, see Figure 45); this contained the sound and allowed us to successfully record the ‘violining’ technique. Lentz was not happy about the audible acoustic sound of the chord plucks being picked up by the microphones however, McGuigan and I explained to him that as there was a gap of several seconds between each chord pluck, the rogue sound could be successfully edited out in post-production.



Figure 45: Pseudo isolation booth constructed out of two sound bafflers.<sup>321</sup>

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<sup>321</sup> Photograph taken by the Matthew McGuigan, 15/2/08.

The recording of *Ingwe* was not finalised until mid-2010. Although we had recorded the majority of the work in 2008 it was not until late 2009 that Lentz was happy with the mix and it was not until early 2010 that the recording was mastered.



Figure 46: *Ingwe* cover art.<sup>322</sup>

## 6.10 The Score Editing Process (2009)

By February 2009, the recording of *Ingwe* was in the final stages of the mixing process. As the whole work had now been recorded, Lentz was obviously no longer able to alter any sections of the piece. It was at this stage that Lentz asked me to prepare my working score for his copyist. Prior to this, I had undertaken a preliminary scan (late 2008) of the stave/tablatore lines in order to make sure that they corresponded (see Figure 47). He asked me to write in the exact articulations/phrasing (see Figure 50) I played on the recording as he felt

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<sup>322</sup> Lentz, "Ingwe from 'Mysterium' ('Caeli Enarrant...' Vii) for Solo Electric Guitar (2003–2009) Performed by Zane Banks."

that my performance on the recording captured the essence of the work. In order to complete the latter task, Lentz posted me a copy of the final mix of *Ingwe* so that I could listen to my phrasing while reading through score and then mark which notes I slurred.

The image shows a page of handwritten musical notation for a piece titled "ingwe" by Georges Lentz. The piece is from "mysterium" ("caeli enarrant..." VII) and is for solo electric guitar (2003-). The tempo is marked as  $\text{♩} = 90$  /  $\text{♩} = 120$  /  $\text{♩} = 7.5$ . The notation is in treble clef and includes various musical symbols such as "dist.", "ardente", "fff", "PH", and "T". There are four systems of music, each with a staff of notes and a corresponding guitar tablature below it. The tablature uses numbers 1-5 to indicate fret positions. The page is a preliminary draft and does not contain any phrasing or slurring markings.

Figure 47: Preliminary last draft – page one, featuring no phrasing or slurring markings.

Once I had thoroughly proof read each bar I scanned my score and emailed it to Lentz so that it could be type set. On 23 February 2009, Lentz sent me the preliminary draft of the complete typeset score and I was ask to carefully read through each bar to make sure that there were no typesetting errors. It was also at this stage, that Lentz began preparing the technical explanations page (see 6.10.1.3. and Figure 53). Lentz emailed the first draft of the technical explanations page to me on 26/2/2009 and it was accompanied by the following message.

#### **6.10.1.1 Lentz - (26/2/2009)**

Hi Zane,

I'm in the process of writing a page with technical explanations to go in the front of the Ingwe score. Would you mind reading what I've written so far (see attachment) and telling me if it is correct and makes sense. I haven't put in the musical notation yet, so some of it is totally incomplete. But see if the last 4 paragraphs in particular make sense. If there is anything else I forgot, please feel free to point it out to me.

Many thanks!

G<sup>323</sup>

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<sup>323</sup> Personal correspondence with Lentz, 26/2/09

### 6.10.1.2 Musical and Technical Explanations:<sup>324</sup>

Figure 48: Lentz's first draft of the technical explanations page.

Note: I received the technical explanations on 26/2/2009. It is incomplete regarding diagrams/symbols as Lentz was mainly concerned that I read the actual explanations.

#### Ingwe Technical Explanation

*Ingwe* is written for a regular six-string electric guitar, fitted out with a volume pedal, a distortion pedal and at least one high quality amplifier. No tremolo arm (whammy bar) required. Each bar in this piece contains four beats - these beats can be three different lengths: crotchets (quarternotes), semiquavers (sixteenths) or semibreves (whole notes). Some passages contains graphic notation. Graphic notation bars always contain four crotchet beats.

/ = bend note upwards/downwards over the duration of the note

= group of grace notes played as fast as possible

T = tap with right hand finger

= note held approximately as long as shown

= fast tremolo

TTTTTTTTTTTT = tap the edge of the pick on the top E string with irregular speed, shifting the tapping point slowly between the middle pickup and the fingerboard. Play the indicated pitches with the left hand at the same time, creating a kind of double melodic line

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<sup>324</sup> Personal correspondence with Lentz, 26/2/09.

Rub string = rub the bottom E string with the fleshy part of the right hand middle finger, creating a sound not unlike a cello tremolo. The rubbing speed should be slightly irregular, generally speaking faster in *cresc* and slower in *dim*.

In loud passages with distortion, the volume pedal is to be faded out *very gradually* on notes that die away (to ensure a smooth diminuendo, and to ensure that the ensuing silence does not contain amp noise). In subito fortissimo attacks after those silences, the volume bar is to be brought back to full volume only *immediately before* the attack of the note.

Bar 497: while the guitar was allowed to ring freely on all strings up to this bar, all strings except the bottom E string are dampened at this point, in such a way as to also firmly hold down the bottom E string at its base groove (the point where the fingerboard meets the tuning scroll). This is to ensure that the very loose bottom E string doesn't get dislocated out of its groove in the process of being plucked vigorously.

After reading through this first draft, I sent Lentz the following message:

### **6.10.1.3 Banks - (4/3/2009)**

Hi Georges,

I have read through the explanations page and everything is fine except for in the last paragraph you mention how the guitarist holds the string in its 'base groove', I would just refer to it as 'nut'. I was also wondering if you have a fax number? I have gone through the entire score and have written a list of the corrections, I will go through the score one last time to double check things but it is easier if I can just fax/scan my list to you.

Zane

By 8 March 2009 I had completed proof reading of the score and sent Lentz a list of the following corrections (see 6.10.1.4.). Once these corrections had been made I was happy for Lentz to send the score to Universal Edition (Vienna) for publishing.

### **6.10.1.4 Final *Ingwe* proof read and corrections**

\*Pg. 5, Bar 64, Beat 2-4 = should have a slur from F-G, F#-G#, B-D#. The F after the D# should be on the 6th fret of the B string and the G-F# trill should also be on the B string.

\*Pg. 5, Bar 66, Beat 3-4 = the second fret tap marking is over the wrong note. It should be over D not C.



\*Pg. 6, Bar 86, Beat 1-4 = the whole line should be played/tabbed on the A string NOT the E string.

\*Pg. 18, Bar 351, Beat 1 = get rid of tabbed note for held D. The tabbed note is that of an A and therefore should be removed.

\*Pg. 19, Bar 364, Beat 1 = get rid of tabbed note during semi quaver rest.

I think these will all be very easy to rectify and won't too much time at all.

Zane

Figure 49: **Final *Ingwe* score corrections (8/3/2009).**

#### **6.10.1.5 Lentz's reply – (11/3/2009)**

Hi Zane,

I understand you want the fingering changed at the end of bar 64, but would it be possible to still have open E string on the first note of bar 65? That would tie in with the open E at the end of 63.

I'd appreciate if you could let me know.

Many thanks,

**ingwe**  
from 'mysterium' ("caeli enarrant..." VII)  
for solo electric guitar (2003–2007)

georges lentz  
with technical  
annotations by  
zane banks

$\text{♩} = 80 / \text{♩} = 120 / \text{♩} = 7.5$

dist. *fff* ardente *fff*

T  
A  
B

7 9 8 5 7 5 9 7 9 9 9 5 5 3

4 7 8 6 8 6 10 13 15 12 13 12 14 15 7 9 4 5 6 8 8 4 9 5 9 5 8 4 9 7 9 7

7 9 8 7 8 6 5 5 6 5 7 8 10 7 11 11 5 8 11 9 10

10 12 10 13 15 16 18 19 17 14 20 11 19 16 18 20 21 20 1 4 2 1

Figure 50: Ingwe page last draft before being sent to UE.

<sup>325</sup> Personal correspondence with Lentz, 11/3/09.

Once this final adjustment had been made Lentz sent the final draft to his copyist, who then sent the final version on to Universal Edition. On 26 March 2009 Lentz emailed me a PDF of the Universal Edition publication of *Ingwe* complete with technical explanation pages and a memorial for Lentz’s friend and colleague, Pieter Bersée (1950–2008). In his email Lentz wrote to me, “You should be the first to see and have the final score of 'Ingwe'.”<sup>326</sup> I printed off this PDF copy of the final performance score as it was not until August 2011 that I received printed and bound copies of the *Ingwe* score from Universal Edition (see Figure 52).



Figure 51: Georges Lentz and I after the UK premiere of *Ingwe* at the 2012 Vale of Glamorgan Festival in Cardiff, Wales.<sup>327</sup>

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<sup>326</sup> Personal correspondence with Lentz, 26/3/09.

<sup>327</sup> Photograph taken by Jy-Perry Banks, 5/5/12.

# ingwe

from 'mysterium' ("caeli enarrant..." VII)  
for solo electric guitar (2003–2009)

georges lentz  
with technical  
annotations by  
zane banks

$\text{♩} = 30 / \text{♩} = 120 / \text{♩} = 7.5$

*dist.*  
*always with great pain*  
*fff and with a blazing sound*  $\text{ff}$

T  
A  
B

4

*fff* P.H.

7

8<sup>va</sup>

10

*gliss.*

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universal edition ue 33 933

Figure 52: The printed EU version<sup>328</sup>

<sup>328</sup> Lentz, "Ingwe from 'Mysterium' ('Caeli Enarrant...' Vii) for Solo Electric Guitar (2003–2009)," 1.  
217


### Musical and technical explanations:


*Ingwe* is written for a regular six-string electric guitar, fitted with a volume pedal, a distortion pedal and at least one high quality amplifier. No tremolo arm (whammy bar) required.


Each bar in this piece contains four beats - these beats can be three different lengths: either crotchets (quarter notes), semiquavers (sixteenths) or semibreves (whole notes). Some bars contain four regular crotchet beats, other bars are made up of four beats of uneven length.


Some passages contains graphic notation. Graphic notation bars always contain four crotchet beats. Vertical dotted lines indicate the placement of the beats within those bars.


 = bend the note upwards/downwards over the duration of the note.

 = vibrato. Only notes marked with this sign are to be vibrated, all other notes are to be played *non vibrato*.

 = group of grace notes played as fast as possible.

 = tap with right hand finger.


 = note held for approximately as long as shown, in the part of the bar where it graphically appears.

 = non-measured tremolo (*fff* semibreve tremolos always with an intention of *cresc.* and growing intensity and with increasing tremolo speed).

TTTTTTTTTT = tap the edge of the pick on the top E string with slightly irregular speed, shifting the tapping point slowly between the middle pickup and the fingerboard. Play the indicated pitches with the left hand at the same time, creating a kind of double melodic line.

rub string = rub the bottom E string with the fleshy part of the right hand middle finger, creating a sound not unlike a cello tremolo. The rubbing speed should be slightly irregular, generally speaking faster in *cresc.* and slower in *dim.*

In loud passages with distortion, the volume pedal is to be faded out *very gradually* on notes that die away (to achieve a smooth diminuendo and to ensure that the ensuing silence does not contain amp noise). In subito *fff* attacks after those silences, the volume pedal is to be brought back to full volume *suddenly* and only *immediately* before the attack of the note.

 = "Violining", i.e. pluck with the volume pedal turned completely down, then gently and very smoothly bring the volume up to about *pp* and let die away naturally to nothing (fading out the volume pedal again very gradually too, so there is no amp noise in the ensuing silence).

Bar 503: The bottom E string is to be tuned down no further from here. While the guitar was allowed to ring freely on all strings up to this bar, all strings except the bottom E string are dampened with the left hand at this point, in such a way as to also firmly hold down the plucked string at the nut (the bridge at the tuning pegs end of the fingerboard). This is to make sure the very loose bottom E string does not get dislocated out of its groove in the process of being plucked vigorously.

Figure 53: Printed UE technical explanations page<sup>329</sup>

<sup>329</sup> Ibid., Preface.



Figure 54: Performance of *Ingwe* at the Naxos Records 25<sup>th</sup> Anniversary Ceremony, Sydney, Australia (24/8/12)<sup>330</sup>

## 6.11 Evaluation and Recommendations

I have attempted to accurately and effectively chronicle the evolution of *Ingwe* in detail for the purpose of providing composers and performers (mainly electric guitarists) with what I believe is a successful model for a creative collaboration. I also feel that this section of the dissertation serves the musicological function of detailing exactly how Lentz and I worked (2005–2011) to produce *Ingwe*. The easiest way to quantify the success of *Ingwe*, albeit somewhat material, is from the fact that my recording of the work was released internationally on the Naxos label, to critical acclaim, and that the score, of which I was the technical annotator was published and internationally released by Universal Edition publishing. However, even had it not been released by Naxos or

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<sup>330</sup> Photograph taken by Jy-Perry Banks, 24/8/12.

published by UE, I feel that *Ingwe* has been hugely successful in terms of its contribution to the electric guitar's unaccompanied art-music repertoire.

I believe that *Ingwe* is a very unique work. Even after researching thousands of the electric guitar's classical compositions as part of this thesis, I am still yet to discover a composition which equals it in terms of length, performer stamina, technical versatility and virtuosity. On reflection, I do not think that Lentz and I should have conducted our creative collaboration in a different way. Although we faced some logistical issues throughout the collaboration regarding composing for the electric guitar and performing *Ingwe* live (chronicled in this chapter), we never encountered any issues concerning how we conducted our collaboration. I believe that creative collaboration between Lentz and myself was successful and I can only speak positively about the experience as, not only was a sixty minute solo electric guitar work born out of it, I learned a tremendous amount about art music and the compositional process. I also learned how to successfully undertake a creative collaboration with a composer as has been outlined in this chapter, and I still use this collaborative model. Furthermore, Lentz came to know the electric guitar intimately.

The suggestions that the composer/performer interviewees made in 4.8 of this thesis mirrored several of the things which Lentz and I achieved in our collaboration. Like several of the composers who had no prior experience with the electric guitar (Bång, Bettendorf et al), Lentz sought out a musically literate electric guitarist (myself) to help navigate him through the electric guitar's many idiosyncrasies such as its irregular tuning. He knew that writing for the electric guitar as if it were a classical guitar would be unsuccessful and this was one of the main reasons why he sought my help. However, before doing so, Lentz did familiarise himself with as much electric

guitar repertoire, both classical and popular, that he could lay his hands on. He never bought a guitar, but developed enough of an understanding of the guitar's fretboard to be able to pick up a guitar and show me fingerings for chords which he had worked out.

Five solo and chamber works have been successfully written for and premiered by myself. For these five works I drew on the collaborative experience I gained while working with Lentz; I have only had positive feedback from these composers about our educative and collaborative process. I do not believe that the manner in which Lentz and I collaborated while working on *Ingwe* is the one and only way for a composer and performer to successfully interact. There are numerous models for successful creative collaborations which use different modes of interaction (see Chapter 5: Collaborative Models and Parameters 5.3.1.1 – 5.3.1.14). My hope is that by documenting in detail my collaborative experience with Lentz, more composers may be inspired to write for the instrument. In addition, the detailed description of the process will demystify significant aspects of the instrument which may be discouraging potential composers. I also hope that this document may be a useful educational tool for any composers who do not have an intimate working knowledge of the electric guitar or its cultural/performance (popular music) conventions but wish to learn about the instrument's idiosyncrasies before contacting a performer/collaborator.



## 7 Conclusion

The central aim of this dissertation is to highlight both composers' and electric guitarists' compositional, collaborative and performative experiences with the electric guitar, as well as to provide insights into their attitudes and perceptions which relate to the instrument's role in art music. In doing so, future composers who may be interested in writing for the instrument are provided with practical information about the instrument's origins, its culture and its idiosyncrasies. As part of the central aim, I discussed the nature and philosophy of present-day musical collaborations with their use of modern technology, and this technology can mediate the aural experience; the purpose being to outline options available to composers and performers when beginning a collaborative partnership.

The interview and analysis process (Chapter 4) was integral to fulfilling this aim as it provided first hand insight into the experiences of forty-eight composers and electric guitarists. Never before has an interview and analysis study of this magnitude been conducted which specifically concerns the role of the electric guitar in art music. Chapter 4 goes beyond pure analysis: it contains numerous recommendations concerning composing for, and performing on, the electric guitar.

Numerous interviewees have strongly recommended that future composers collaborate with an electric guitarist before and during the compositional process. I found that the current literature on collaborative models to be both overly broad as well as insufficient for outlining the various contexts, scenarios, parameters and situations which instigate and govern creative collaborations between composers and performers. Therefore, I felt it necessary to dedicated a whole chapter of this dissertation to the

different aspects of collaborations as well as create a list of collaborative models. Chapter 5 investigated the various roles that collaborators may adopt throughout the creative process and what impact such models may potentially have on the final composition. Chapter 5 discussed the significant issues that govern twenty first century ‘new music’ collaborations between performers and composers.

I am an active performer of contemporary art music on the electric guitar, and I have collaborated with numerous composers. Therefore, I consider it necessary to offer my opinions and recommendations regarding composing for the instrument and undertaking a collaboration with an electric guitarist. Chapter 6 dealt exclusively with my experience as a collaborator with the composer Georges Lentz (b. 1965) for his extended composition *Ingwe* from ‘*Mysterium*’ (“*Caeli enarrant ...*” VII) for solo electric guitar (2003–2009). I explain, in detail, how *Ingwe* came to fruition, from its early stages through to ongoing revisions in 2012.

The sections and topic areas explored in Chapter 6 were:

- Establishing a collaborative model; detailed list of *Ingwe*’s extended techniques<sup>331</sup>;
- The learning process and performance logistics; list of the equipment used during *Ingwe* performances;
- Review of the unofficial and the official premieres of *Ingwe*;
- The Naxos recording process, and the notation process for the Universal Edition publication of the score;
- The international release of the Naxos recording of *Ingwe* and its reception; and

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<sup>331</sup> This included a description of how we decided to notate these techniques.

- The final evaluation of our collaboration and my recommendations for composers and performers who may be interested in collaborating on a work for electric guitar.

In order to demonstrate the techniques and sounds Lentz and I developed as part of our collaboration, I have included in the ‘creative work’ portfolio of this thesis both a mp4 film (on a USB) of myself performing *Ingwe* at the 2012 Amsterdam Electric Guitar Heaven Festival and the Naxos CD recording of *Ingwe*. Also featured in the appendix to the thesis is a recommended listening list comprised of contemporary art music compositions, and seminal electric guitar recordings from various popular music genres. Chapter 6 and its creative research components are partly an auto-ethnography/guide of how to undertake a successful collaboration involving an electric guitar. These will be a significant benefit to composers.

In this dissertation, I have provided an account of how I believe the electric guitar came to be initially included in the art music of the 1950s courtesy of the presence of US occupational servicemen and American popular culture in Western Europe (Chapter 3). This chapter also examined the decade-by-decade development of art music repertoire written for the instrument, including unaccompanied electric guitar repertoire. It also discussed the interchangeable terminology of acoustic guitar or electric guitar often seen in early compositions. As part of the appendix to Chapter 3, I have provided an extensive list of art music compositions featuring the electric guitar. It is also in this chapter where I demonstrated that Stockhausen’s orchestral work, *Gruppen* was not the first art music work to feature electric guitar.

In Chapter 2 of this dissertation, I covered the development of the electric guitar highlighting how the instrument was born out of the necessity for volume. This chapter

shows how the electric guitar is the most recent edition to the fretted, plucked strings family. Major design improvements for the electric guitar have been discussed in this chapter including profiles of several significant electric guitarists' playing styles. The profiled guitarists in this chapter (Johnson, Moore, Clapton, Hendrix and Van Halen) have each extended electric guitar technique. They created new sounds on the instrument that influenced popular music and have also influenced the compositional styles of several contemporary art music composers.

It is evident that the electric guitar has not come from a classical music background. As seen in Chapter 2, the electric guitar's origins lay in American honky tonks and juke joints, not European concert halls. The instrument made its art music debut in 1950 in Bruno Maderna's composition *Studi per 'Processo' di Kafka*. Its incorporation in art music was at the height of the modernist era<sup>332</sup>, before the first stirrings of post-modernist interpretation.

The electric guitar was first featured in popular music of the 1930s/40s. The instrument rose to widespread prominence amongst the general public due to its pivotal role in popular music and popular culture of the 1950s/60s. The instrument did meet some resistance during this time from the general populace and the classical music community as it was viewed as passing teenage fad, not a legitimate instrument, Steve Waksman elaborates:

By the middle of the 1960s, then, as rock 'n' roll historian Philip Ennis noted, "the boy with his guitar became a national phenomenon." The situation was notable enough for *LIFE* magazine to feature a full-colour two-page spread on

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<sup>332</sup> Leon Botstein, "Modernism: Part 8 World War II and After," in *Grove Music Online* (Oxford University Press, 2013). Accessed on 18/3/13.

the rising popularity of electric guitars in 1966, with an array of guitars laid out dramatically across the pages and grouped according to price. This was no consumer's guide, but an attempt to reduce a wide-ranging cultural phenomenon to the bottom line. "It's Money Music," ran the headline, and the accompanying text told the tale of the electric guitar's new ubiquity that stressed the instrument's role as a commodity.<sup>333</sup>

On the topic of resistance towards the electric guitar from the classical community, composer-performer Steve Mackey remarked to me:

I've had a conductor, who was asked to conduct an orchestra playing my piece say [to me], "I'm not going to conduct that piece [classical composition featuring electric guitar] in fact, I'm not going to conduct any piece by Steve Mackey because the [electric] guitar is the source of decline of western civilisation."<sup>334</sup>

I believe that the classical communities' reaction to the electric guitar and popular music during the 1950s/60s may have been based on a dislike for much of what the electric guitar had come to be associated with "sex, drugs and rock 'n' roll." Composers such as Maderna, Henze, Stockhausen, Berio, Brown and Zimmermann wrote for the electric guitar and may have viewed the instrument as an innovative way of creating new music.<sup>335</sup>

However, not every person in the classical music world of the 1950s and 1960s was an innovative composer striving to extend musical composition in this way, as

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<sup>333</sup> Waksman, *Instruments of Desire: The Electric Guitar and the Shaping of Musical Experience*, 3.

<sup>334</sup> Personal correspondence with Steve Mackey, 2/8/11.

<sup>335</sup> Refer to the Seth Josel comment about Zimmermann in section 3.3 of this thesis.

evidenced by the relatively small number of works that included an electric guitar (see Tables 3 and 4). Members of the general public who would not call themselves classical music connoisseurs also reacted to the electric guitar's increasing presence in daily life, as witnessed by the article in *LIFE* magazine.<sup>336</sup> Other popular music communities such as the folk community also reacted negatively to the rise of the electric guitar. Waksman believes that the pivotal moment in folk music was when Bob Dylan played an electric guitar at the 1965 Newport Folk Festival. Although Western Classical music and folk music of the 1960s are musically very different, I see that there are some similarities between classical music and folk music connoisseurs. I have observed that there are individuals in each community that believe that their respective genre is superior to other genres and some individuals may go as far as vowing to never listen to 'non-classical' or 'non-folk music' as they do not deem these other genres to be 'real music.' These passionate views may be compounded by the fact that neither western art music nor folk music are mainstream popular music genres. It is for this reason that I believe that Waksman's explanation of the folk communities' reaction to the electric guitar could also be applied to the classical community of the 1950s/60s (refer to the Waksman quote in section 3.4 of this thesis).<sup>337</sup>

The rise of the electric guitar is forever synonymous with the youth movement of the 1950s/60s as well as the technological innovations of the mid-twentieth century America. The instrument has become a cultural icon that represents more than just music. In their book, *The Story of the Fender Stratocaster*, Ray Minhinnett and Bob Young elaborate:

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<sup>336</sup> Waksman, *Instruments of Desire: The Electric Guitar and the Shaping of Musical Experience*, 2-3.

<sup>337</sup> Refer to the Waksman quote in section 3.4 of this thesis.

Like the Stradivarius, the [Fender] Strat was an inspired solution to a set of technical problems, and like the Stradivarius, the Strat is a product of its own time: twentieth-century America, the cradle of mass production and capitalism. It couldn't have been built in any other place, or in any other period, and the cast of characters who participated in its success also evokes Fifties Americana.<sup>338</sup>

It is the electric guitar's association with mass production and capitalism that may have not gone down well with the aesthetic values of the classical community. As a result of the electric guitar's popular music and popular culture associations it has in the past, and still is to a certain extent, looked down upon by some as not being a 'serious' instrument. As seen in the *LIFE* article (1966), the electric guitar may be viewed as an instrument for the common person; one which is intrinsic to the generation of millions of dollars in pop-record sales each year. These factors have led me to wonder whether if the electric guitar came to prominence during another period and did not have any negative associations (sex, drugs, rock music, pop culture, mass production and capitalism), would the instrument have been received in a similar way to, for example, the celeste, which obviously has not evoked such strong reactions? The view as relayed by Steve Mackay's quote above that mainstream popular music and culture is not serious or not artistic is erroneous. It is just as serious to its practitioners as any 'elite' art form, and the enthusiasts and connoisseurs of popular music are just as passionate and engaged in their respective genres as classical music enthusiasts. In his book *Running with the Devil: Power, Gender and Madness in Heavy Metal Music*, Robert Walser explains this false perception of popular culture not being 'serious':

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<sup>338</sup> R. Minhinnett, Young, B., *The Story of the Fender Stratocaster* (San Francisco and Emeryville, CA, and Milwaukee, WI: GPI Books, 1995), 9.

I see the “popular” as an important site of social contestation and formation, and I find unconvincing the common assumption that culture that exists either at the margins of society or among some prestigious elite is necessarily more important, interesting, complex, or profound than the culture of a popular mainstream. Popular culture is important because that is where most people get their “entertainment” from and information: it’s where they find dominant definitions of themselves as well as alternatives.<sup>339</sup>

There has been a gradual change over the years of the post-modernist interpretation of the electric guitar and its function in music and society. This change in attitudes and perceptions has come from both the classical music/academic community and the general populace. When the electric guitar initially rose to prominence and was first incorporated into art music, there were several already middle-aged or elderly, established composers such as Hindemith, Schoenberg and Shostakovich who did not write for the instrument. These composers did not express why they did not write for the electric guitar, but my belief is that they had already found their compositional voice (without the need for an electric guitar) and that the electric guitar and its associations were foreign to them. On the other hand, the composers who embraced the electric guitar and gave the instrument its first art music compositions including Maderna, Henze, Stockhausen, Berio and Nilsson were all under the age of thirty when they first wrote for the instrument. These composers, due to their age at the time, may have been more open to experimenting with new, non-classical instruments and it is likely that they were familiar with the sound of the electric guitar due to its presence in jazz during World War II.

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<sup>339</sup> Walser, *Running with the Devil: Power, Gender and Madness in Heavy Metal Music*, xiv.



Composers born during or after World War II have grown up with the sound and presence of the electric guitar. This is because the electric guitar has been present in all forms of media since the mid-twentieth century. As was evident in Chapter 4, the majority of American and Australian composers that I interviewed had a great fondness for the electric guitar. The instrument reminded them of their childhood and they had an affinity for the rock and pop music in which the instrument played an integral role. When I asked composer Steve Mackey about what initially came to mind when he thought of the electric guitar he replied:

That's [electric guitar] music for me, that's my mother tongue and most of my early experiences with music are wrapped up with the electric guitar. I think about driving; I think about sitting in the back seat of a friend's car with the stereo blasting and listening to Carlos Santana, Jimi Hendrix and Led Zeppelin. I think about my garage, I had a band in my garage with drums, bass, amps, keyboards and people would come over and jam at my house. I think of musical exploration. To me the electric guitar is the vehicle I used to really explore music and it's odd that I ended up being a concert music composer but there are good sides and down sides to my background.<sup>340</sup>

When I asked Michael Gordon the same question he replied:

It's an unusual question, "What are your first recollections of experiences with the electric guitar?" because I think, well, the electric guitar has just always been there, it's so pervasive in all music, certainly in the music you hear everywhere,

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<sup>340</sup> Personal correspondence with Steve Mackey, 2/8/11.

even if you want to shut it out. I don't have that moment that I can think of [first hearing the electric guitar] ... I always loved the sound [of the electric guitar].<sup>341</sup>

Michael Nicolella stated:

I started playing electric guitar as a young kid, playing in rock bands, that was my first introduction to the electric guitar.<sup>342</sup>

Phillip Houghton stated:

Probably the first recordings that really turned my mind on was when I was about three or four and I heard Bill Haley and the Comets, Elvis Presley, Scotty Moore and Chuck Berry. I thought the electric guitar was just fantastic and I wanted one, when I was a young boy. I was aware of the blues and jazz; I had heard jazz players as a youngster. My head was turned around when I heard The Beatles ... as an eleven year old kid - I would cut out cardboard electric guitars. As a thirteen year old I was absolutely blown away with Jimi Hendrix when I first heard him, I thought "this is so different." I was just a popular fan, I wasn't a guitar maniac back then however when I was sixteen/seventeen I turned into a guitar maniac.<sup>343</sup>

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<sup>341</sup> Personal correspondence with Michael Gordon, 1/11/11.

<sup>342</sup> Personal correspondence with Michael Nicolella, 13/6/11.

<sup>343</sup> Personal correspondence with Phillip Houghton, 25/1/11.

Tim Brady stated:

I guess the first thing that would probably jump into my mind would be The Beatles, that's the history of the thing, that's the history of it for all us Baby-boomers.<sup>344</sup>

These American, Canadian and Australian composers were born in the 1950s and so grew up with the electric guitar and popular American culture. It is no wonder that they have a special bond with the instrument and popular culture and reference this in their compositions. Chapter 4 also highlighted how several European composers such as Georges Lentz, Carl Bettendorf and Malin Bång have all had a radical change in attitude towards the electric guitar. These three composers all experienced decidedly traditional European musical educations which focused almost solely on western art music. Their initial attitudes towards the electric guitar ranged from ambivalence to disgust. When talking about his childhood view towards the electric guitar, Lentz remarked to me:

It was more than the sound [of the electric guitar]; it was all it stood for, which was so foreign to my world as a child - I thought of drugs [what the instrument represented]. I saw it as scary, it was evil.<sup>345</sup>

Regarding her initial attitude toward the electric guitar, Bång commented.

Electric guitar was never a favourite instrument of mine; I really didn't like the sound of the high solos which is so common, [that] very squeaky sound.<sup>346</sup>

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<sup>344</sup> Personal correspondence with Tim Brady, 27/7/11.

<sup>345</sup> Personal correspondence with Georges Lentz, 16/2/11.

Bettendorf mentioned that he was “never interested in rock or pop”<sup>347</sup> music. However, each of these composers has come to embrace the electric guitar and champion its cause in art music through writing music for it. These three composers seemed to have had an epiphany towards the instrument after either working with an electric guitarist/s, being commissioned to write for electric guitar or listening carefully to the sounds the instrument can produce. In my interview with Lentz he commented:

Well, what I should probably say first is that my appreciation for the electric guitar has been a real learning curve, a real journey. It really started, that night when I heard that guy in the outback [Brewarrina, far west N.S.W., Australia] in the pub and I really got an appreciation for the instrument that I didn't have before. It [electric guitar] captured the loneliness out there [in the outback, and the loneliness] that I was experiencing at that time too.<sup>348</sup>

Lentz's attitudes towards the electric guitar entirely changed, he went from viewing the instrument as vulgar to seeing it an expression of contemporary urban life.

Lentz remarks:

I have come, of course, to see the incredible possibilities of the instrument ... in terms of dynamics, in terms of different tone colours, in terms of expressing a rawness of our world, of contemporary urban life that surrounds us. It's [the electric guitar] an expression of our contemporary life and I've come to

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<sup>346</sup> Personal correspondence with Malin Bång, 30/8/11.

<sup>347</sup> Personal correspondence with Carl Bettendorf, 26/6/11.

<sup>348</sup> Personal correspondence with Georges Lentz, 16/2/11.

REALLY appreciate its best things ... . The possibilities for the future [of the electric guitar], are really endless.<sup>349</sup>

It is evident that today, sixty-three years after the first art music composition was written for electric guitar, composers who experienced very traditional classical music educations are changing their views towards the electric guitar. There have always been European composers such as Louis Andriessen, Anthony Fiumara, Erkki-Sven Tüür and Moritz Eggert who have always had a positive attitude towards the electric guitars role in art music. As Fiumara commented:

I think it's [electric guitar] an underestimated instrument in contemporary music, I think it's an electronic instrument with the best 'user interface' and with possibilities that I think are equal to the best electronic music and best electronic devices. I think the possibilities are endless.<sup>350</sup>

While it is evident that the electric guitar's popularity and acceptance in art music are increasing, ironically the instrument is not as popular in popular music as it once was. This is not to say that it is out of favour: as Andriessen remarked, "it's [electric guitar] the most popular instrument in the whole world."<sup>351</sup> The zenith of the electric guitar's popularity in popular music was during the 1970s–1980s as it was at this time that the vast majority of popular groups were guitar-based rock and heavy metal bands featuring very proficient lead guitarists. Some of these groups include Led Zeppelin, Pink Floyd, Black Sabbath, The Rolling Stones, ACDC, Kiss, Aerosmith, The Who, Queen, Rush, Van Halen, Bon Jovi, Iron Maiden, Metallica, Def Leppard, Guns

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<sup>349</sup> Personal correspondence with Georges Lentz, 16/2/11.

<sup>350</sup> Personal correspondence with Anthony Fiumara, 16/11/11.

<sup>351</sup> Personal correspondence with Louis Andriessen, 15/8/11.

‘N’ Roses, Mötley Crüe, Skid Row and Poison. “By 1989, heavy metal accounted for as much as 40% of all sound recordings sold in the United States” writes Walser, “*Rolling Stone* [magazine] announced that heavy metal now constituted ‘the mainstream of rock and roll’”.<sup>352</sup> These bands dominated the airwaves during the 1970s–1980s and the electric guitar played a particularly prominent role in their music. In 2013, popular artists such as Rihanna, will.i.am, Kanye West and Jay Z etc who represent the genres of hip-hop and synth-pop dominate the Billboard charts.<sup>353</sup> These artists still use the electric guitar on their recordings and in their live shows, but it is nowhere near as prominent as it was during top-selling artists of the 1970s–1980s.

To the art music community and the broader classical community, the electric guitar is a new instrument which still has a novelty status. The instrument is exciting for composers and such as Lentz, Bång, Bettendorf and Brett Dean as well as for contemporary music ensembles such as Ensemble Offspring, Ictus, Wet Ink, Ensemble Dal Niente, Chronology Arts, Ensemble Nickel etc who are all featuring the electric guitar often in their programs. Electric guitarist and Elision Ensemble founder Daryl Buckley remarked to me:

I feel that the electric guitar is in good health; it’s being performed and used within all the major ensembles within Europe. Many of the major composers and figures here [UK/Europe] are writing for it on an ongoing basis. It’s in major works, it’s in orchestras, it’s in the opera houses. It’s becoming a regular feature of musical life and this excites me. You don’t want it to be as ubiquitous as something like the viola, that’s what is the great thing about it and [what] makes

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<sup>352</sup> Walser, *Running with the Devil: Power, Gender and Madness in Heavy Metal Music*, 3.

<sup>353</sup> Billboard, "Billboard Chart: Hot 100," <http://www.billboard.com/charts/hot-100>. Accessed on 1/3/13.

it exciting, [it] is that it [electric guitar] has a regular use, there's a strong engagement with it, but it's not totally ubiquitous to every musical circumstance - a good position to be in.<sup>354</sup>

As Fiumara stated (quoted previously in this conclusion), the electric guitar has an endless amount of timbral, textural and sonic possibilities which are particularly enticing for art music composers. Part of the value for composers of the electric guitar is the excessive volume and distortion that is possible, transcending any other traditional instrument. There is a necessity of composers to actually fully utilize the full range of the instrument, including its ability to blend and even play softly. Australian composer Michael Smetanin elaborates:

One electric guitar can sound like a seventeen piece group. It packs a lot of punch, so it's economic from that point of view ... . It [electric guitar] certainly has a lot of potential to be an integral part of a new music ensemble. It depends on how you write for it because the electric guitar can hide inside the ensemble quite well with harmonics or nice shimmering notes on the top of chords. That's just a quick example of how the instrument can be blended into the ensemble, so it's not just a solo instrument, it can be both.<sup>355</sup>

Composer Julian Day also stated:

The electric guitar, through amplification is capable of great power and great strength in its sound ... . It's an instrument that's not only capable of the rock thing but also a lot of subtle nuance and timbral variety.<sup>356</sup>

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<sup>354</sup> Personal correspondence with Daryl Buckley, 30/8/11.

<sup>355</sup> Personal correspondence with Michael Smetanin, 12/3/11.

<sup>356</sup> Personal correspondence with Julian Day, 21/12/11.

There will of course still be members of both the general populace and the classical music community who do not like the electric guitar, just as there will be people in the world who do not like the sound of the bagpipes or banjo. There will also still be people who hold stereotypical views about the electric guitar as being too loud. Some people will never accept the instrument because of its association with unsavoury aspects of popular culture. This stereotypical view of the electric guitar as being too loud is best depicted in a YouTube clip from 2010 of French-Vietnamese electric guitarist, Nguyen Le Hong performing the first movement of Erkki-Sven Tüür's Symphony No. 5 with the Bremen Philharmoniker. The video runs for 3'21", during which time Le Hong appears to be improvising a cadenza comprised of slurred 'eastern' scales embellished with chromatic notes. Almost every note in this cadenza is subject to pitch alteration due to Le Hong's use of the electric guitar's whammy bar. For all but the last twenty seconds of the cadenza, an elderly lady, sitting in the audience to the right of Le Hong, has both fingers firmly placed in her ears so as to block out the sound of the electric guitar, or to protect her hearing from what Daryl Buckley discussed in Chapter 4 as the imagined excessive volume of the instrument (see Figure 55).<sup>357</sup> Perhaps in the future, due to the relative nature of post-modernist interpretation, the electric guitar will be viewed neutrally from both the classical and popular music communities. It may become like the voice or piano which are both instruments which are present in both classical and popular music.

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<sup>357</sup> It is very easy for electric guitar amplifiers to greatly exceed safe Occupational Health and Safety volume levels. Although the instrument may not be exceeding a safe decibel level, it may still be uncomfortable for individuals in the audience, and the performer; as a matter of standard practice, many electric guitarists wear ear plugs for all performances. The mere sight of an amplifier could cause concern amongst some audience members regarding the potential volume of the concert. This is the "imagined excessive volume" which Daryl Buckley is referring to in Chapter 4.





**Figure 55: Performance of Erkki-Sven Tüür's Symphony No. 5, Bremen Philharmoniker conducted by Markus Poschner; electric guitar performed by Nguyen Le Hong. Performance was held at Die Glocke, Bremen, Germany, March 14, 2010.<sup>358</sup>**

The future role of the electric guitar in the twenty-first century was highlighted at the 2012 Amsterdam Electric Guitar Heaven festival. This was a nine-day festival in which numerous established electric guitarists and bands/ensembles gave concerts, master classes and interviews at numerous venues around Amsterdam attracting a mixed audience of electric guitar enthusiasts, contemporary music specialists and the general public. Some of the featured artists were:

- Andy Summers (electric guitarist with Sting and The Police);
- Adrian Belew (electric guitarist with King Crimson, Frank Zappa, David Bowie and Talking Heads);
- Jan Akkerman (electric guitarist with Focus);
- John Mayall (Blues artist);

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<sup>358</sup> Nguyen Le Hong Le Hong, "Tüür Symphony No. 5 (Performed by Nguyen Le Hong)," <http://www.youtube.com/watch?v=OsOLytByK4U>. Accessed on 1/3/13.

- Uli Jon Roth (electric guitarist with Scorpions) ;
- Dither Quartet (an electric guitar quartet performing contemporary art music);
- Debashish Bhattacharya (classical Indian music);
- Seth Josel, Zane Banks, Alfredo Genovasi, Mikael Szafirowski, Mathian Janmaat, Patricio Wang and Aart Strootman (art music, sound art & improvised music performers);
- Derek Bermel and Klas Torstensson (art music composers); and
- Ben Verdery (classical guitar).

The artist director of the festival was Wiek Hijmans who was interviewed for this dissertation. Hijmans is a well-established and widely respected Dutch electric guitarist who specialises in performing contemporary art music, sound and improvised music.

During our interview on 24/7/2011 Hijmans said regarding the genesis of the festival:

We [Amsterdam Electric Guitar Heaven Festival] started getting funding and it was easy to get funding because everybody thought it [the festival] was a great idea, also because it's [electric guitar] such a popular instrument. If you have a popular instrument and difficult music [contemporary art music], you may end up getting more people involved with difficult music. It is one of the aims of government subsidisation. Subsidies are meant to make things possible that you think are worthwhile but do not have a commercial life of their own ... We've started an education project here, where 200 [disadvantaged] school kids will get electric guitar lessons during school time. That's our warming up project [for the 2012 guitar festival].<sup>359</sup>

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<sup>359</sup> Personal correspondence with Wiek Hijmans, 24/7/11.

It was Hijman's vision to showcase the electric guitar in all of the different roles it has from art music and jazz to blues and rock. The festival program stated:

“We've put together a program which aims to be a sampler of what's going on in the world of the electric guitar. Naturally, our objective has been to bring leading artists from all genres to Amsterdam – or to find them in Amsterdam itself.”<sup>360</sup>

What I found most impressive about the whole festival was how well the ‘classical-electric guitar’ was showcased considering that it was not an art music festival. The instrument, in an art music setting, was featured prominently at the festival and numerous leading performers (mentioned above) gave concerts and master classes. Most art music festivals do not feature much repertoire for the electric guitar except for perhaps one or two works, and traditional electric guitar festivals often do not feature any art music. Some of the art music performances at the festival included:

- A piece commissioned from the Dutch-Swedish composer Klas Torstensson entitled, *Electric/Bass* for ten brass players and five electric guitarists, performed by Seth Josel, Aart Strootman and Patricio Wang on electric guitar.
- A performance of Louis Andriessen's *Hout* and Steve Reich's *Electric Counterpoint*.
- *Ritornello*, a concerto for electric guitar and string quartet written by Derek Bermel.

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<sup>360</sup> Wiek Hijmans and Jack Pisters, "Amsterdam Electric Guitar Heaven Festival Program," ed. Amsterdam Electric Guitar Heaven Festival (Amsterdam2012), 5.

Although there were art music concerts on several days throughout the duration of the festival, one day in particular showcased the electric guitar's role in art music in two separate concerts. The first concert on this day was entitled 'The New Guitar', and featured talks and performances from electric guitarists involved in avant-garde methods of playing electric guitar, or those who specialise in performing art music, sound art or improvised music on the electric guitar. The first half of the concert featured the electric guitarists, Alfredo Genovasi (UK), Mikael Szafirowski (Finland) and Mathian Janmaat (Holland), and in the second half I performed Georges Lentz's *Ingwe*.

The second concert of the day featured a composition called *AID* written by American composer Tom Trapp for the electric guitarist Adrian Belew; this work was for solo electric guitar and 200 amateur electric guitarists. The final half of this concert featured a performance of Derek Bermel's electric guitar concerto *Ritornello* as mentioned above. Between these concerts there were live radio interviews with the performers as well as a panel discussion about the 'new guitar' featuring Andy Summers, Adrian Belew, Seth Josel and Derek Bermel.

Brooklyn based electric guitar quartet Dither, of whom the founding member, James Moore, was interviewed for this thesis, also performed at the festival on several occasions. The Dither Quartet gave a master class at the Amsterdam Conservatorium. I was delighted to see the Conservatorium of Amsterdam actively taking part in an electric guitar festival as the electric guitar, apart from jazz guitar, is not an instrument that is taught at conservatoriums. I hope to see more partnership like this at future electric guitar festivals. In the festival program it states:

The Conservatorium van Amsterdam is also a participating venue in Amsterdam Electric Guitar Heaven 2012, playing host to lunch concerts and clinics on weekdays, where internationally renowned artists and specialists will share their knowledge and their music with young musicians and the public in general.<sup>361</sup>

Through performances of works such as Trapp's *AID*, 200 amateur electric guitarists, both young and old, were given valuable experience performing in a large, non-rock band ensemble and following a conductor. The 2012 Amsterdam Electric Guitar Heaven Festival represents a highly successful model for future guitar festivals. The festival was emblematic of how the electric guitar is being accepted through all levels of art music and that it is a major instrument in all genres of music. Through government subsidisation and cross-promotion with popular music genres and artists, the wider public was exposed to the classical electric guitar and contemporary art music. This exposure would have most likely not happened had it not been for the unique and innovative festival program and vision. It showcased what I believe to be the future of the electric guitar in music: that is a versatile instrument which can be fully integrated into wide range of musical styles.

At present, there are only a handful number of electric guitarists, most of whom were interviewed for this dissertation, who are capable of successfully performing complex art music repertoire either as soloists or with ensembles/orchestras. As a result, players such as Seth Josel, Wiek Hijmans, Toon Callier, Elana Casoli, Tom Pauwels and I are very busy performing professionally, and there is already too much work for the skilled players who already exist, as Toon Callier says:

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<sup>361</sup> Ibid. 5.

Ten to fifteen years ago, Tom Pauwels was the only guitarist [in Belgium] who could read well and had skills on the electric guitar. In the beginning, like four years ago, most of the work we got [Callier and his electric guitar quartet Zwerf] was from Tom [Pauwels] because he couldn't do everything.<sup>362</sup>

In 2012 I had to turn down performing the electric guitar part in Brett Dean's ballet *Fire Music: A Narrative of Nothing* with the Adelaide Symphony Orchestra as on the same night I had previously been booked to give a performance of Georges Lentz's *Ingwe* at The Vale of Glamorgan Festival in Cardiff, Wales. There is already a need for highly skilled and highly versatile guitarists to meet this performance demand. If the repertoire for the instrument keeps increasing at the rate it has for the past ten years, there will have to be a significant increase in the number highly skilled and versatile guitarists. Otherwise, there will not be enough guitarists to perform the repertoire.

I predict that as the world begins to see more highly skilled and highly versatile electric guitarists emerge this will lead to an overall increase in the number of electric guitarists who can read fluently, improvise fluently in any genre, possess chamber music skills, follow a conductor as well as play both classical and electric guitar at a professional level. The reason for this increase in skill and versatility will be related to market competitiveness – in order for a guitarist to be employable they will need the skills that their colleagues possess. I believe I am representative of a highly skilled and highly versatile professional guitarist: in twenty to thirty years time I believe this will be considered normal for many professional guitarists.

In order to assist professional guitarists, twenty to thirty years from now, become fluent at playing art music on the electric guitar, I believe the electric guitar

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<sup>362</sup> Personal correspondence with Toon Callier, 15/11/11.

should be offered as an instrument to study at conservatoriums and music academies. Many electric guitarists with no prior classical training will need help navigating the repertoire. They will also require an introduction to performance techniques that are likely to be foreign to them if they have only played mainstream popular music. Seth Josel feels that offering the possibility of study on the contemporary classical music on the electric guitar will be very beneficial for the future of both art music and guitar pedagogy:

I hope one day that I'm going to be able to teach electric guitar [contemporary music] at an institution. I really hope that I live to see that day! I think that the next generation [of guitarist] will have a program that allows you to do a degree in contemporary classical and electric guitar, like a double program. That will be the beginning of something very special.<sup>363</sup>

There are guitarists such as Tom Pauwels who teach at conservatories. Aside from mainly teaching classical guitar, Pauwels encourages some students, mainly those interested in contemporary art music, to explore the art music repertoire written for electric guitar. When I interviewed Pauwels for this dissertation he remarked to me:

Now in the conservatories there's enough academic studies to allow you to perform [art music] the on the electric guitar. I'm teaching in Ghent. Wiek Hijmans is teaching in Holland. It [electric guitar] has invaded the academic world, [and] it will automatically generate a new generation of musicians that premiere music [written for the electric guitar].<sup>364</sup>

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<sup>363</sup> Personal correspondence with Seth Josel, 27/7/11.

<sup>364</sup> Personal correspondence with Tom Pauwels, 13/9/11.

To my knowledge there is no conservatory or music academy which offers a fulltime performance degree focusing on contemporary art music written for the electric guitar. Certain guitarists such as Pauwels, Elana Casoli and Seth Josel who can play both classical and electric guitar may support a student's exploration into art music repertoire for the electric guitar, but unfortunately it is not part of an approved university course. The instrument really needs structured performance courses where prospective students can enrol to do a bachelor degree, masters degree, PhD or DMA on the electric guitar, specialising in art music. This would be the biggest catalyst to teaching electric guitarists the skills required to perform solo or ensemble art music repertoire. Composer Gavin Bryars supports the notion:

The electric guitar is still not a standard conservatory instrument. There are places when you can study electric guitar [jazz] but usually it's classical guitar. I think the electric guitar as an option should become available and more widely used in conservatories. When electric guitar is more available educationally I think that will help a lot – but the more composers use it, [the] more composers will want to write for it. It feeds on itself, it kind of spirals, hugely in the last twenty years but there's still a long way to go before every symphony orchestra has 3 electric guitars.<sup>365</sup>

The electric guitar still fulfils its standard function of playing melodic passages and chords. However, composers such as Enda Bates and Karlheinz Essl are treating it as an interactive sound source. The electric guitar's 'inherent' electro-acoustic properties enable the instrument to control and manipulate sound like a synthesiser. Due

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<sup>365</sup> Personal correspondence with Gavin Bryars, 6/9/11.



to this, it has begun breaking down barriers between high and low art and blurring the lines between musical genres. When I interviewed Bates he remarked about the function of the electric guitar as a digital interface:

One thing I love about the electric guitar is the fact that it's almost an inherently electro-acoustic instrument because the [electric] guitar is nothing by itself. It needs an amplifier as well to produce an electrical signal. When I think of an electric guitar I think very much of electro-acoustics; it seems like the perfect instrument for that purpose.<sup>366</sup>

Essl pointed out the electric guitar's use as a 'tactile' interface:

As a composer I am very much interested in sounds. As you know I'm doing a lot of electronic music and even if I write for an acoustic instrument without electronics, I'm interested in creating sounds with these instruments which goes beyond the normal sound that you would expect from the instrument. For me, the electric guitar is something very special because it hasn't got a standardised sound. The sound is very much dependent on the instrument and the player. Five years ago I had an idea to go back to my roots, as a teen when I played electric guitar and I wanted to include this in my live setups so [now] I have an electronic instrument which I constructed myself with a Max patch and I'm only working with MIDI controllers. I was missing this tactile feeling. My idea was to use the electric guitar as an interface – a sort of table guitar that I route into my electronic instrument and use this as a tactile controller. I discussed this with

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<sup>366</sup> Personal correspondence with Enda Bates, 9/11/11.

my students, [and they suggested that] the electric guitar is everything you need - you don't have to construct it yourself.<sup>367</sup>

I believe that the electric guitar's presence and function in art music will continue to increase over the next decade due to the instrument's versatility and ubiquity. Part of the attraction of the electric guitar for composers and contemporary music ensembles is the instrument's ability to achieve a plethora of tones, timbres, textures and dynamics. Composers and contemporary music ensembles, when working with the electric guitar, have an extraordinarily rich and diverse sonic palette at their disposal, one that is cost effective and requires very few personnel. The electric guitar, unlike the classical guitar, can be heard in any ensemble setting. With the improvements in live sound technology, balancing the electric guitar amongst a classical ensemble (acoustic or amplified) is no longer such a dilemma.

I can foresee that more composers will write art music for the electric guitar, and more contemporary art music ensembles will program repertoire which utilises the instrument. I believe the instrument will be featured at more contemporary art music festivals. My reasoning for this prophecy is that due to the electric guitar's ubiquity, affordability and connection with popular culture it is an excellent way of engaging younger audiences, and the general public with contemporary art music. Classical music, especially contemporary art music, may be viewed as elitist and academic, thus alienating audience members who are not already classical music aficionados.<sup>368</sup> By incorporating the electric guitar which is a popular culture icon and is associated with being a 'democratic', 'low-art' instrument these potential audience members may be

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<sup>367</sup> Personal correspondence with Enda Bates, 9/11/11.

<sup>368</sup> Personal correspondence with Tom Pauwels, 13/9/11.

attracted out of curiosity and also by the fact that they feel they can relate to the electric guitar<sup>369</sup> As Tom Pauwels says:

It's [electric guitar] a democratic instrument, it's available to a lot of people, of course it's cheap [when] compared to a piano or violin and it's not connected with an elite music/elite education. You can learn it on the internet, there are lots of YouTube tutorials, there's so much material available so anybody can play it<sup>370</sup>

The instrument is blurring the lines between musical genres such as, contemporary art music, sound art, noise music, improvised music, modern jazz and sub-genres of popular music such as indie rock, hardcore and heavy metal. Hopefully it may even break down the barriers between high and low art as the audience demographics mix. As mentioned in the introduction, there is a scarce amount of academic literature on the role of the electric guitar in art music. I call for musicologists and performers to consider researching this field. I hope that this dissertation has demystified aspects of the electric guitar and will in turn, inspire composers to write for the instrument. It also hoped that this dissertation will inspire guitarists, both classical and electric, to collaborate with present and future composers, and consequently perform contemporary art music on the electric guitar.

I think it's [electric guitar] a wonderful instrument. It's the instrument of our time. Especially when we think about young people whose musical knowledge is nothing else but contact with rock and pop music. They are keen on the

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<sup>369</sup> Refer to Tom Pauwels comments about the electric guitar being a 'democratic' instrument in Chapter 4 Section 4.7.2.

<sup>370</sup> Personal correspondence with Tom Pauwels, 13/9/11.

electric guitar and if they see that something different, maybe more challenging, but also rewarding can be done with this instrument, it could bring them to other music making forms. What I call ‘more serious’ music making forms than what I call purely entertaining musical forms, it’s an important issue<sup>371</sup> - Erkki-Sven Tüür

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<sup>371</sup> Personal correspondence with Erkki-Sven Tüür, 4/11/11.

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APPENDIX A: LIST OF COMPOSERS AND ELECTRIC GUITARISTS WHO TOOK  
PART IN INTERVIEWS FOR CHAPTER 4

1. **Ablinger, Peter** - Composer
2. **Altena, Maarten** - Composer
3. **Andreissen, Louis** – Composer
4. **Bång, Malin** – Composer
5. **Barrett, Richard** - Composer/Guitarist
6. **Bates, Enda** – Composer/Guitarist/Hexaphonic Guitar Specialist
7. **Bermel, Derek** - Composer
8. **Bettendorf, Carl** - Composer
9. **Brady, Tim** – Composer/Guitarist
10. **Bryars, Gavin** – Composer
11. **Buckley, Daryl** – Guitarist/Elision Ensemble leader
12. **Callier, Toon** - Guitarist/Ensemble Zwerm member
13. **Casoli, Elena** – Guitarist
14. **Chatham, Rhys** - Composer/Guitarist
15. **Corbett, Sidney** – Composer/Guitarist
16. **Day, Julian** - Composer
17. **Dean, Brett** – Composer
18. **Dewhurst, Carl** – Guitarist/Improviser
19. **Dramm, David** – Composer/Guitarist
20. **Eggert, Moritz** – Composer
21. **Eloy, Jean-Claude** - Composer
22. **Essl, Karlheinz** – Composer/Guitarist

23. **Fiumara, Anthony** – Composer
24. **Gordon, Michael** – Composer
25. **Graulty, Philip** – Guitarist/Ensemble leader
26. **Heyn, Volker** - Composer/Guitarist
27. **Hijmans, Weik** – Guitarist/Improviser
28. **Houghton, Phillip** - Composer/Guitarist
29. **Josel, Seth** - Guitarist
30. **Lang, David** - Composer
31. **Lentz, Georges** - Composer
32. **Mackey, Steve** – Composer/Guitarist
33. **Magnanensie, Giorgio** - Composer
34. **Moore, James** – Guitarist, Dither Quartet
35. **Morris, Geoffrey** - Guitarist
36. **Niblock, Phil** - Composer
37. **Nicolella, Michael** - Composer/Guitarist
38. **Nimoy, Marc., Salazar, Felix** – Los Angeles Electric 8 Guitar Ensemble
39. **O'Malley, Stephen** – Composer/Guitarist/Band leader/Sunn O))) member
40. **Pauwels, Tom Pauwels** – Guitarist/member of Ictus ensemble
41. **Pritsker, Gene** - Composer/Guitarist
42. **Smetanin, Michael** - Composer
43. **Toop, Richard** - Musicologist
44. **Trapani, Christopher** – Composer/Guitarist
45. **Tüür, Erkki-Sven** – Composer
46. **Vierk, Lois V** - Composer

47. **Williams, John Williams** - Guitarist

48. **Wolff, Christian** - Composer/Guitarist

## APPENDIX B: RECOMMENDED LISTENING – POPULAR MUSIC

To further assist composers in familiarising themselves with the electric guitar, its players, performances styles and techniques, I have included a recommended ‘popular music’ listening list. This list contains twenty-four works spanning a variety of popular music genres and electric guitar performance styles. These songs will expose composers to many of the basic and extended performance techniques, as well as innovative playing styles that are closely associated with specific electric guitarists. Composers will also gain an understanding of some of the potential timbral possibilities the electric guitar can achieve as well as models of electric guitar, amplifiers and effect pedals.

- **Wes Montgomery: *West Coast Blues* (1965) – jazz tone.** (Gibson L5 archtop guitar with humbucker pickups however, Montgomery is only using the neck pickup.)

Montgomery articulates all notes exclusively with his right hand thumb, thus achieving a very fleshy, mellow tone and this tone is also enhanced by his use of ‘flat-wound’ strings (Montgomery and Ron ‘Bumblefoot’ Thal, aka are the only guitarist on this list who use ‘flat-wound strings’; the remainder use ‘round wound strings’). Traditional jazz guitarists favour a clean, dry tone with a lot of low end. Often they will ‘roll’ the tone knob on the guitar back to a setting of three or four, as well as setting the amplifier to high bass and low treble frequencies. Montgomery most commonly used a tube amplifier with a low

volume setting so that the listener could hear the natural acoustic sound of his semi acoustic guitar blended with the sound of the amplifier

- **Eric Clapton: *Hideaway* (1966)** – This recording demonstrates a pioneering English rock guitar tone. Clapton is using a 1959 Gibson Les Paul with humbucker pickups, however he is only using the bridge pickup which achieves a nasal, biting tone. A Marshall valve combo amplifier is used as is the amplifier's internal overdrive (distortion effect). The Gibson Les Paul and Marshall amplifier are a very common hard rock combination that have been favoured by numerous electric guitarists.
- **Jeff Beck: *I Ain't Superstitious*<sup>372</sup> (1968), *Nadia*<sup>373</sup> (2001) and *Somewhere over the Rainbow*<sup>374</sup> (2010)** – Jeff Beck is a master of tone and timbre and is known for emulating characteristics of the human voice. *I Ain't Superstitious* explores the different sounds the wah-wah pedal can achieve and *Nadia* is an instrumental version of an Indian song composed by Nitin Sawney. In the 1980s Beck abandoned playing with a pick, preferring instead to play with his fingers. For the *Nadia* recording, Beck used a Fender Stratocaster with a bottleneck slide, whammy bar, reverb and slight delay to achieve a likeness to the microtonal inflections which is a common feature of classical Indian singing. *Somewhere Over The Rainbow* demonstrates Beck mastery of the volume pedal,

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<sup>372</sup> Jeff Beck, "The Best Of," (EMI, 1995).

<sup>373</sup> "You Had It Coming," (Epic, 2001).

<sup>374</sup> "Emotion & Commotion," (ATCO, 2010).

sustain and whammy bar. The majority of the melody is played using natural and artificial harmonics with whammy manipulation.

- **Jimi Hendrix: *Machine Gun*<sup>375</sup> (1969), *All Along The Watchtower* (1968) and *Third Stone From The Sun*<sup>376</sup> (1967)** – The live recording of *Machine Gun* is regarded by many electric guitar aficionados to be one of the greatest examples of rock guitar playing.<sup>377</sup> Hendrix used a Fender Stratocaster which was run through several Marshall stack amplifiers attached to a rotating Lesley speaker and he would most likely have also used a Fuzzface distortion pedal. Hendrix tuned his guitar down a whole tone for this concert which as a result achieves a very bluesy, Mississippi Delta sound. Hendrix's cover of Bob Dylan's, *All Along the Watchtower* features two guitar solos which explore several techniques and effects. Hendrix used his standard 'rig' (Fender Stratocaster/Marshall stack) however during his solos he used a Vox Wha Wha pedal, tape delay and a bottleneck slide. *Third Stone from the Sun* is a psychedelic jam which featured manipulated feedback which was controlled by a whammy bar.
- **Jimmy Page (Led Zeppelin): *Dazed and Confused*<sup>378</sup> (1969)** – The breakdown section of this song features Page playing his Fender Telecaster with a violin bow. He uses this technique in combination with a high level reverb on the amplifier. Creating a distant violin-like sustain, similar to that of an Ebow.

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<sup>375</sup> Jimi Hendrix, "Jimi Hendrix: Band of Gypsies," (MCA, 1970).

<sup>376</sup> "The Jimi Hendrix Experience: Are You Experienced?."

<sup>377</sup> Brad. Tolinsky, di Perna, Alan, "100 Greatest Solos," *Guitar World* 1998, 66, 67, 74.

<sup>378</sup> Led Zeppelin, "Led Zeppelin," (Atlantic, 1969).

- **Peter Frampton: Show Me the Way (1975)** – This song features a device known as a ‘talk box’ which blends the pitch of the guitar with the human voice when the guitarist sings into the voice box apparatus while playing the guitar.
- **Eddie Van Halen: Eruption (1978)**<sup>379</sup> – This track and recording were the catalyst for the shred guitar movement. As discussed in Chapter 1 many extended electric guitar techniques were introduced to the world through this improvisation.
- **Yngwie Malmsteen: Far Beyond the Sun**<sup>380</sup> (1985) – Malmsteen is a towering figure in the shred guitar domain despite his clichéd use of faux-baroque melodies. In this recording he uses a Fender Stratocaster run through a Marshall stack with high gain to create a classic, ‘post Hendrix’ tone.
- **Steve Vai: Passion and Warfare**<sup>381</sup> (album – 1990) – This is a classic shred album which features endless extended techniques, unusual sounds and fretboard gymnastics. Some of the regular and extended guitar techniques featured on this album are whammy bar dives, whammy bar gargles, whammy bar phrasing, pinch harmonics, fret tapping, sweep picking, tremolo picking. Some of the guitar effect pedals featured on the album are wah-wah, harmoniser, whammy pedal, chorus, various distortion tones, different delay settings, acoustic simulators, compressors and reverse. It is definitely worth a listen so

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<sup>379</sup> Halen, "Van Halen".

<sup>380</sup> Yo Ohashi, "Yngwie Johann Malmsteen: Concerto Suite for Guitar and Orchestra in E Flat Minor," (Japan: Eagle Vision, 2005).

<sup>381</sup> Steve Vai, "Steve Vai: Passion and Warfare," (Relativity, 1990).



that one can hear all the weird and wonderful sounds the electric guitar can achieve in the hands of a master, of course, with the help of effects pedals and amplifiers configurations.

- **Kurt Cobain: *Endless Nameless*<sup>382</sup> (1991)** – *Endless Nameless* was a hidden track from Nirvana's 1991 album, *Nevermind*. It is a 'noise' jam which was caught on tape and is a great example of feedback manipulation, noise and various distorted effects.
- **Danny Gatton: *Harlem Nocturne*<sup>383</sup> (1993) and *Sun Medley*<sup>384</sup> (1993)** – Danny Gatton was renowned for his stylistic versatility and commonly played a Fender Telecaster, favouring the bridge pickup. He frequently used the 'chicken picking' technique and his tone was very often biting and twangy. *Harlem Nocturne* demonstrates a classic Telecaster sound (Gatton used Fender valve combo amplifiers) with the use of bends, double, triple and quadruple stops and feedback. *Sun Medley* is a medley of early Elvis tunes and is a great example of the rockabilly guitar style. On this recording Gatton used a Gibson semi-acoustic arch top which was run through a 'slap back' tape delay unit and a Fender valve combo amplifier. He also uses chicken picking and hybrid picking to execute double stops and arpeggiated lines.

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<sup>382</sup> Kurt Cobain, "Nirvana: Nevermind," (Geffen, 1991).

<sup>383</sup> Danny Gatton, "Cruisin' Deuces," (Elektra, 1993).

<sup>384</sup> Ibid.

- **Bumblefoot: *Mafalda* (2003)** – *Mafalda* features chromatic fret tapping, pinch harmonics, slide/portamento, microtonal rock/blues licks and left hand slurring. Bumblefoot (aka Ron Thal) is a fret tapping virtuoso who wears a thimble on the little finger of his picking hand so that he can tap and slide to notes which are beyond the fretboard of his fretless electric guitar. The fretless guitar, like a violin, can achieve microtones more easily than a regular fretted guitar and flat wound strings are used as round wound strings damage the finger board. Bumblefoot does not bend strings like other fretted guitarists but employs slides (gliss and portamento) instead. He is a contemporary shred guitarist who continues to build upon the legacy of Van Halen and Steve Vai.
- **Meshuggah: *I*<sup>385</sup> (2004)** – Meshuggah are a progressive-death metal band known for their use of unusual rhythms/rhythmic groupings, metric modulations and polymetric ostinatos. '*I*' is a twenty minute compositions which best demonstrates Meshuggah's distinctive sound. Guitarists Fredrik Thordendal and Mårten Hagström play eight and nine string electric guitars which enable them to achieve low, heavy sounds. Their guitars are run through Line 6 Pods instead of amplifiers. The Pod is an amp-modeller which digitally recreates specific amplifier sounds. Meshuggah's Pods are linked through a laptop computer and then run through the house P.A. system. Although musically very different from Nile (see below), Meshuggah feature many of the same performance techniques in their compositions.

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<sup>385</sup> Meshuggah, "*I*," (Fractured Transmitter Recording Company, 2004).

- **Bill Frisell: *Shenandoah*<sup>386</sup> (2004)** – Frisell is a modern jazz guitar virtuoso known for his use of effects. On this recording he accompanies himself by recording a live backing into a looping station so that as the piece progresses, he builds numerous layers which create a thick harmonic and timbral canvas over which he improvises.
- **Sunn 0))) : *Aghartha*<sup>387</sup> (2009)** – Sunn 0))) are a doom metal/sound art group centred around guitarist and composer, Stephen O'Malley. *Aghartha* features long distorted drones on the electric guitar bass strings (all detuned) as well feedback manipulation. Sunn 0))) are known for playing at an extreme loud volume in performance and it is this volume which give them their unique 'wall of sound' trademark.
- **Sunny Landreth: *Umbresso*<sup>388</sup> (2007)** – *Umbresso* heavily features tremolo picked passages comprised of regular fingered notes and notes played with the slide. Landreth is a bottleneck slide virtuoso who has a very different approach to playing slide from his contemporary, Derek Trucks. Landthreth plays with a thumbpick which allows him to use his fingers to pluck chords, while still enabling him to tremolo pick. He also freely mixes notes played with fingers (left hand) and the bottleneck slide (he places the slide on his little finger).

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<sup>386</sup> Bill Frisell, "East/West," (Nonesuch, 2005).

<sup>387</sup> Stephen O'Malley, "Monoliths & Dimensions," (Japan: Daymare Recordings, 2009).

<sup>388</sup> Martin Atkins, "Crossroads: Eric Clapton Guitar Festival 2007," (USA: Warner Music, 2007).

- **Nile: *As He Creates So He Destroys*<sup>389</sup> (Instrumental) (2007) and *Eat of the Dead*<sup>390</sup> (2007)** – Nile are a technical death metal band known for their sonic intensity and brutality. They employ well known techniques for example, tremolo picking, palm muting (achieves a very heavy sound), pinch harmonics (squeals), sweep picking, rapid slurs (pull-offs), wide string bends and wide vibrato however the sound they create is quite different due to the fact that two guitarists (Dallas Toler-Wade and Karl Sanders) tune each of their guitar strings down a Perfect 5<sup>th</sup> from standard tuning, to the pitches of (A-D-G-C-E-A). Their guitar techniques compliment the drum kit's 'blast beating'.
- **Derek Trucks: *Key To The Highway*<sup>391</sup> (2010)** – This recording will give one a very good idea of what can be achieved with a bottleneck slide as Derek Trucks is currently one the world's leading bottleneck slide guitar players who does not use a plectrum but articulates notes with his right hand fingers. Very often when playing with a slide, guitarists use several standard scordaturas which are called 'open tunings'. Trucks plays a Gibson S.G. guitar fitted with humbucker pickups but he most commonly uses the neck pickup. This is usually run through a Fender valve combo amplifier.

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<sup>389</sup> Nile, "Ithyphaliic," (Nuclear Blast, 2007).

<sup>390</sup> Ibid.

<sup>391</sup> Derek Trucks, "The Derek Trucks Band: Road Songs," (Sony Masterworks, 2010).

## APPENDIX C: MATTHEW MCGUIGAN'S RECOUNT OF THE *INGWE*

### RECORDING PROCESS.

(Personal correspondence with Matthew McGuigan on 28/8/2011)

#### **EQUIPMENT USED**

- Marshall Valvestate Combo Amp (don't know the exact model) - Reverb adjusted throughout
- Gibson SG
- Vox Volume Pedal
- Ebow
- Shure SM57 Dynamic
- Rode NT55 Small Diaphragm Condenser
- 2x Josephson C42 Small Diaphragm Condenser
- Daking Microphone Preamps (Mic Pre IV)
- Lynx Aurora AD/DA Converters
- Apple Macbook Laptop
- Logic Audio Software
- Presonus HP60 Headphone Amplifier
- Sony MDR - 7506 Headphones

## MICING AND RECORDING TECHNIQUE

SM57 and NT55 were placed approximately ten inches from the speaker with their capsules very close together and angled at ninety degrees towards each other. The use of two different microphones was employed to help capture the whole frequency spectrum of the guitar. The dynamic microphone responds more to the mid frequencies and the condenser fills in the upper and lower frequencies. Angling them both, in a pseudo XY pattern, meant that both were picking up the signal slightly off axis which is somewhat duller than straight on. A highly distorted guitar can be quite harsh in the high frequencies and this arrangement combats this issue. Using two close mics also allowed the phenomenon of phase cancellation and enhancement to be used to our advantage by making sure the positioning of the two capsules minimised cancellations and maximised enhancements.

The other microphones (Josephson C42's) were in an ORTF stereo configuration approximately eight metres away from the amp, six feet in the air and angled slightly towards the floor. The role of these mics was to create a believable sense of space and stereo spread, and to give the listener the feeling of being in the room with the performer. ORTF was chosen because it tends to be more defined than spaced omnidirectional AB setups and encodes more stereo information (intensity difference and time difference) than XY which does not encode time difference.

The hall we were in had the option of raising or lowering acoustic curtains. I chose to have them lowered which is the driest position. The liveness of a concert hall is already a foreign environment for an electric guitar and I didn't want to wash the sound out completely. The amplifier already had its own artificial reverb which was adjusted

to suit different sections of the piece and the room mics were capturing a very wet signal even with the curtains down.

I recorded digitally at 96kHz / 24bit.

## **THE AMP HUM DILEMMA**

Dealing with electricity and electrical issues is not a common occurrence for a classical recording session, however when the one and only instrument involved is an electric guitar then it becomes something you really have to think about. There is always an element of inherent noise in any electrical device: the amplifier, the effects pedals, the pickups and circuitry of the guitar. When distortion (high level amplifier gain) is introduced all this noise becomes amplified.

Zane chose a guitar with hum-bucking pickups (as opposed to single coils) which already negates some noise however this alone was not enough to fix the problem. At the recording end I minimized it by having Zane stand in a position that lessened the interaction of the guitar and amp. In the future I would like to spend more time with different amplifiers and Direct Injection boxes to try and remove all the noise possible at the source, but in this instance I had to work with the equipment available at the time. In the end I decided to embrace the noise as an unavoidable element of the instrument and believed that a completely noiseless guitar would actually be unnatural.

Zane and I also understood that many listeners would be non-guitarists or not familiar with guitar based music genres and did not want any technical details to detract from the listening experience. So during the mix process I minimised the noise but did not remove it completely. I did this in a number of ways. Firstly I made a copy of all the audio files and did a full noise reduction process on the copies. Hearing these alone was

a very unnatural sound so I automated a blending of the processed and unprocessed versions throughout the piece, bringing the noise reduced versions higher in the mix when needed (softer moments, ends of phrases) and pushing the unprocessed version during the louder and more aggressive moments where the noise was insignificant. Regular volume automation was also employed to lower noise levels. I also avoided compression of any sort so as not to raise the noise floor in the course of limiting dynamic range.

### **External Sounds (the problem of recording in a public building)**

One of the problems that arose while recording in an educational institution as opposed to a dedicated recording studio was the possibility of interruptions. The hall we were in had two double doors at the entrance neither of which could be locked without a key (which we did not have access to). We had placed signs on stands around the outside of the hall stating 'Recording in Process' nevertheless this was not enough. On one occasion a staff member of the institution walked right in, banging the doors on the way, right in the middle of a perfect take.

### **DIFFICULTIES**

Sound matching from day to day was difficult, there were so many variables involved and because it wasn't a studio and the space was being used by others between sessions I couldn't leave things setup. I took photos of settings and microphone placements but even so it was still a bit of trial and error each day to match the tone. It was made that much more difficult by Zane's amp which was not in the best state of



repair and had all its marking rubbed off so there was no way of telling where the knobs were pointing.

As well not having a separate control room is always an issue with location recording. It meant I had to monitor the signal with headphones, and I am yet to find any headphones that I would trust with this critical task. I was also physically in the room with the performer which meant I had to be silent for four days. However, many times it was beneficial to be right there and able to respond to the playing and interact with Zane face to face.

There was one particularly soft section that was problematic. It involved striking a chord with the volume pedal at minimum then swelling the sound to create these haunting sound scapes. The problem was that, with the mics being quite sensitive, I kept hearing the plectrum 'click' as it brushed the strings at the beginning of each chord. Zane attempted to fix it with his playing but I was forced to actually build a wall between Zane and the microphones to stop the noise getting into the microphones as much as possible.

## **RECOMMENDATIONS FOR COMPOSERS, PERFORMERS AND ENGINEERS**

- There are many aspects of recording an electric guitar that need to be taken care of in order to make sure you are producing the best sounds possible. I would recommend having the guitar setup prior to the session so that the intonation is accurate. Use new strings, new batteries (or power packs) for any effects pedals, have your amp serviced and if it is a tube amp make sure the tubes are all fine.

Check all leads and remove any faulty ones. Once this is done there should be no technical issues and much less noise issues during the recording process.

- Use laser pointers and take accurate measurements of all microphone placements to aid in capturing the same sound from day to day.
- Having one person listening to the sound/tone/performance aspects and one listening critically to the notes and rhythms is also very helpful. It is hard for one person to listen to all these things in every take. Having the composer at every session is also very helpful and I would highly recommend it.

## APPENDIX D: ELECTRIC GUITAR REPERTOIRE LIST

I compiled this repertoire list between January 2010 and March 2013, data was collected from publishing house catalogues, library catalogues and music information centres. Included works fit into one of the following art music sub-genres: modernism, post-modernism, electronic music, minimalism, new-simplicity, new-complexity, spectralism, microtonal music, third-stream, improvised music, sound art, noise music and intercultural art music/stylised 'world-art music' (such as tango, bossa nova etc). The bulk of this repertoire list was compiled before the author had become aware of Sheerpluck.de, an online database which catalogues repertoire for classical guitar, acoustic steel string guitar, electric guitar, bass guitar and lap/pedal steel guitar.

I felt it was acceptable for a composition to pay homage to a popular music work, or to even be deeply rooted in a particular popular music genre; however, compositions which were clearly 'popular music', for example, Van Halen's *Eruption*, were not included in the contemporary art music repertoire list. There are some contemporary art music works written by composers which have been influenced by popular music compositions such as *Eruption* and after an initial listening it may be hard to tell the works apart. In instances such as this, I considered the background to the work's creation and the composer's intentions behind creating contemporary art music compositions featuring the electric guitar.

Sometime after I had begun compiling the repertoire list, I discovered the online guitar repertoire database (art music) [sheerpluck.de](http://sheerpluck.de) and realised that there were works included in my repertoire list which were also on their database. At this point, I decided that any work I discovered which was already on [sheerpluck.de](http://sheerpluck.de), I would not include in my repertoire list. When this was the case, I decided that instead of listing the composer's entire compositional output featuring the electric guitar, I entered a placeholder in the repertoire list with that particular composers details and a link to [sheerpluck.de](http://sheerpluck.de) so that anyone looking at my repertoire list would know where to locate the composer's complete repertoire list. It is impossible to create a definitive list of all the contemporary art music composition featuring the electric guitar. Instead, I compiled a list the of works I came across during my research so that composers, performers or musicologist would not have to spend years trying to track down repertoire for the electric guitar.

### **Electric Guitar Repertoire List.**

<u>Composer</u>	<u>Title</u>	<u>Publisher</u>	<u>Durat -ion</u>	<u>Instrumentation</u>	<u>Year</u>
Aa, Michael van der (b. 1970) The Netherland s	<i>Auburn</i>	Donemus  <a href="http://www.muziekcentrumnederland.nl/">http://www.muziekcentrumnederland.nl/</a>	10'	<i>Auburn</i> is written for amplified Classical Guitar but it is able to be played on Electric Guitar.	1994
Abazis, Theo (b. 1967) Greece	<i>Look at Me</i>	<a href="http://sheerpluck.de">Sheerpluck.de</a>	Not available	Actor, El. Gtr, El Bass, Drum kit, and Digital sounds.	2002

Abbot, Alain A.  (b. 1938)  France	<i>Electrique II</i>	Billaudot  Billaudot.com	Not avail- able	El. Gtr, Vibraphone, Accordion.	Not avail- able
Abecassis, Eryck  (b. 1956)  France	<i>Horde</i>	www.eryckabecassis.com	10'	El. Gtr ensemble	1996
Abecassis, Eryck  (b. 1956)  France	<i>WandG</i>	www.eryckabecassis.com	13'	El. Gtr with live electronics/lap top	2005
Abecassis, Eryck  (b. 1956)  France	<i>Kloch!</i>	www.eryckabecassis.com	180'	El. Gtr, prepared bell tower, tuned car, actor, radio drone.	2009
Ablinger, Peter  (b. 1959)  Austria	<i>1-127</i>	ablinger.mur.at	Not avail- able	El. Gtr and tape	2002
Abram, John  (b. 1959)  UK	<i>Six Pies and a Dirge</i>	Canadian Music Centre  musiccentre.ca	15'	El. Gtr, Vln, Vla, Vlc, B.Cl, Perc, Pno	2008

Abram, John (b. 1959) UK	<i>Lament</i>	Canadian Music Centre musiccentre.ca	8'	El. Gtr, Tenor Sax, Tenor Trb, French Horn, Tenor Banjo, Perc, Db	1986
Abram, John (b. 1959) UK	<i>L.ETHE.R</i>	Canadian Music Centre musiccentre.ca	20'	El. Gtr (w/ dist), El Organ (w/ dist), Hurdy Gurdy, trumpet, B.Cl, Pno, Baroque Vln	1990
Abram, John (b. 1959) UK	<i>Aeneid Music</i>	Canadian Music Centre musiccentre.ca	165'	El. Gtr, el organ, male voice, female voice, tenore banjo, baroque vln, tenor trombone, classical gtr	1988
Acosta R., Rodolfo (b. 1970) Colombia	<i>Carceris Tonalis</i>	www.banrepcultural.org	Not available	El. Gtr (w/ live electronics), Amplified Guitar (acoustic), Amplified Voice, Amplified objects with live electronics, Perc.	1995
Acquaviva, Frédéric (b. 1967) France	<i>Coma</i>	frederic-acquaviva.net	23'	El.Gtr, Voice	1991 – 1996

Acquaviva, Frédéric  (b. 1967)  France	<i>K Requiem</i>	frederic-acquaviva.net	67'	El. Gtr, El. Bass), T. Sax, B. Sax, Tpt, Bugle, Tbn, Tuba Perc, Barrel Organ, Live Electronics	1993 – 1999
Acquaviva, Frédéric  (b. 1967)  France	<i>Sens Unique(s)</i>	frederic-acquaviva.net	60'	El. Gtr, String Quartet, Voice, Sampler	1994 – 1995
Adam, Stephan  (b. 1954)  Germany	<i>Interaktionen für zwei GIRRasten und Gesampelte Klänge</i>	Hubert Hoche Verlag  <a href="http://www.partitur.de/index.html">http://www.partitur.de/index.html</a>	7'	El. Gtr, Acoustic Guitar, El. Bass, samples of Congas	2004
Adams, John  (b. 1947)  USA	<i>I Was Looking at the Ceiling and Then I saw the Sky</i>	Boosey & Hawkes  Boosey.com	110'	El gtr, mezzo sop, high tenor, tenor, baritone, bass cl, alto sax, pno, sampler, dbl bass, drum kit, synth	1995
Adderley, Mark  (b. 1960)  UK	<i>Just when you Thought it Was Safe to Go Out</i>	Music Information Centre Norway  mic.no	Not available	El gtr, cor anglais, trumpet, per, sax, pno, bass cl.	2007
Adderley, Mark  (b. 1960)  UK	<i>Salient Point</i>	Music Information Centre Norway  mic.no	Not available	El. Gtr, Ob, Pno.	1996

Adderley, Mark (b. 1960)  UK	<i>Reverberations for Instrumental Ensemble</i>	Music Information Centre Norway  mic.no	15'	El. Gtr, Cor Angl, B. Cl, Sop Sax, Tpt, Pno,	1994
Adler, Christopher  (1972– 1999)  USA	<i>Ecstatic Volutions in a Neon Haze</i>	<a href="http://members.cox.net/christopheradler/">http://members.cox.net/christopheradler/</a>	19'	El. Gtr, Acoustic Gtr, Ob, Bsn, Pno, Perc.	2005
Agostini, Andrea (b. 1975)  Italy	<i>Bad Time Lullabies</i>	IRCAM Website  <a href="http://www.ircam.fr/ircam.html?L=1">http://www.ircam.fr/ircam.html?L=1</a>	13'	El. Gtr, El Vln, Perc, Live Electronics.	2008
Agostini, Andrea (b. 1975)  Italy	<i>Role Playing</i>	IRCAM Website  <a href="http://www.ircam.fr/ircam.html?L=1">http://www.ircam.fr/ircam.html?L=1</a>	9'	El. Gtr, Fl, Cl, Tpt, Pno, Organ, Perc.	2006
Agostini, Andrea (b. 1975)  Italy	<i>Due Blues</i>	IRCAM Website  <a href="http://www.ircam.fr/ircam.html?L=1">http://www.ircam.fr/ircam.html?L=1</a>	8'	El. Gtr, Tape	2005
Agostini, Andrea (b. 1975)  Italy	<i>Their Generation</i>	IRCAM Website  <a href="http://www.ircam.fr/ircam.html?L=1">http://www.ircam.fr/ircam.html?L=1</a>	8'	El. Bass, Fl, Cl, Pno, Vln.	2004



Agostini, Antonio (b. 1969)  Italy	<i>Osservando Boris Ušmajkin</i>	Ars Publica  arspublica.it	Not avail- able	2 El. Gtr, Fl, Cl, Vibraphone, Prepared Pno, Vln, Vlc,	2008
Agrafiotis, Alexis (b. 1970)  Greece	Piano Concerto Version I	www.alexis-agrafiotis.de	33'	El. Gtr, Perc, Orchestra	1993
Agrafiotis, Alexis (b. 1970)  Greece	Piano Concerto Version II	www.alexis-agrafiotis.de	28'	El. Gtr, Perc, Orchestra.	1996
Aguila, Miguel del (b. 1957)  USA	<i>Caribbean Bacchanal</i>	Peer Music Classical  Peermusic-classical.de	15'	3 Picc, A. Sax, T. Sax, Pedal Steel Gtr, Banjo, Acoustic Gtr, Bass, Perc, Pno.	1993
Aguila, Miguel del (b. 1957)  USA	<i>Cuauhtémoc</i>	Peer Music Classical  Peermusic-classical.de	120'	Picc, Cor Angl, El. Gtr, Pedal Steel Gtr, Banjo A. Sax, T. Sax, B. Sax, Perc, Harp, Pno, SATB soloist, SATB Chorus, Strings.	1992

Aguila Pereyra, Samuel  (b. 1975)  Spain	<i>Ascending</i>	Sheerpluck.de	Not avail- able	El. Gtr, Synthesiser, Electronics	1995
Aguila Pereyra, Samuel  (b. 1975)  Spain	<i>Paisajes Sumergidos</i>	Sheerpluck.de	Not avail- able	El. Gtr, Synthesiser, Natural Sounds, Electronics	2005
Aguila Pereyra, Samuel  (b. 1975)  Spain	<i>Seeing Through Hearing</i>	Sheerpluck.de	Not avail- able	El. Gtr, Acoustic Gtr, Voice, Keyboards.	2006
Aguila Pereyra, Samuel  (b. 1975)  Spain	<i>Cuerpos Kandinsky</i>  (Ballet)	Sheerpluck.de	Not avail- able	El. Gtr, Acoustic Gtr, Voice, Pno, Cl, Tuba, Marimba, Timp, Synthesiser, Vla, Vlc.	2006
Aguila Pereyra, Samuel  (b. 1975)  Spain	<i>El Amor se Mueve</i>  (Incidental Film Music)	Sheerpluck.de	Not avail- able	El. Gtr, Acoustic Gtr, Drum kit, Synthesiser, Vln, Db.	2007
Ahlberg, Gunnar  (b. 1942)  Sweden	<i>Dynamic</i>	Swedish Music Information Centre  mic.stim.se	18'	Picc, Cor Angl, B. Cl, T. Sax, El. Gtr, Timp, Perc, Harp, Pno, Strings.	1969

Åkerlund, Lars  (b. 1953)  Sweden	<i>Strupens Foeljde</i>	Swedish Music Information Centre  mic.stim.se	8'30"	El. Gtr	1987
Albert, Stephen  (1941– 1992)  USA	<i>Bachae</i>	Carl Fischer Music  carlfischer.com	18'	Wind, El. Gtr, Db, Perc, Narrator, SATB Chorus, Cel, Harp, Pno, Strings.	1968
Albert, Stephen  (1941– 1992)  USA	<i>Bachae (Prologue for Orchestra)</i>	Carl Fischer Music  carlfischer.com	8'	SATB chorus, narrator, wind, el gtr, e dbl, perc, strings, cel, harp, pno.	1967
Albert, Stephen  (1941– 1992)  USA	<i>Leaves from the Golden Notebook</i>	Carl Fischer Music  carlfischer.com	Not avail- able	A. Sax, T. Sax, B. Sax, El. Gtr, Perc, Cel, Pno, Harp, Strings,.	1970 – 1972
Albert, Stephen  (1941– 1992)  USA	<i>Orchestra Book</i>	Carl Fischer Music  carlfischer.com	9'	Fl, Cl, Cor Angl, A. Sax, T. Sax, B. Sax, El. Gtr, Perc, Cel, Pno, Harp, Strings.	1972

Albert, Stephen  (1941– 1992)  USA	<i>Cathedral Music</i>	Theodore Presser Company  presser.com	Not avail- able	Amplified Fl, , Tpt, Hrn, Tenor, Perc, Amplified Harp, Amplified Gtr (classical), El. Organ, El. Pno, Pno, Amplified Vlc	Not avail- able
Alcalay, Luna  (b. 1928)  Croatia	<i>Night Club Pieces</i>	Edition Modern	10’	Sax, El. Gtr, Perc, Organ, Db.	1968
Andraansz, Peter  (b. 1966)  The Netherland s	Serenades II-IV	Self Published  peteradriaansz.com	15’	3 El Gtr, 1 El Bass.	2004
Andraansz, Peter  (b. 1966)  The Netherland s	<i>Nu descendant l’escalier</i>	Self Published  peteradriaansz.com	2’	El. Gtr, Wind Section, Tbn, Perc, Pno.	2008
Andraansz, Peter  (b. 1966)  The Netherland s	Triple Concerto	Self Published  peteradriaansz.com	18’	Recorder, Cl, B. Cl, Tbn, El. Gtr, Pno, Vlc.	2003

Andraansz, Peter  (b. 1966)  The Netherlands	<i>Waves 5-7</i>	Self Published  peteradriaansz.com	20'	Wind instruments (2), El Gtr, Ebow Pno, Perc, Tbn.	2007
Andraansz, Peter  (b. 1966)  The Netherlands	<i>Waves 11-13</i>	Self Published  peteradriaansz.com	17'	Picc, B. Cl, El Bass, Ebow Pno, Vln	2008
Andraansz, Peter  (b. 1966)  The Netherlands	<i>Prana I-V</i>	Self Published  peteradriaansz.com	63'	El. Gtr ensemble, Female Voice, Perc.	2007
Andraansz, Peter  (b. 1966)  The Netherlands   (b. 1966)  The Netherlands	<i>Strands I &amp; II</i>	Self Published  peteradriaansz.com	10'	B. Recorder, B. Cl, Tbn, Vib, Pno, El. Gtr, Vln, Db.	2005

Aperans, Dace  (b. 1953)  Latvia	<i>Tango Lugāno</i> <i>(Tango Lugano),</i> <i>musical play in</i> <i>two acts</i>	Latvian Music Information Centre  lmic.lv	Not avail- able	Solo voices, Vocal ensemble, Pno trio and Small Rock band (Synthesizer, Drums, El. Gtr)	1987
Apslund, Christian  Dates Not available  Canada (lives in USA)	<i>The Anatomy</i> <i>Series</i>	Frog Peak Music  frogpeak.org	Not avail- able	El. Gtr, El. Bass, Drums and other instruments	Not avail- able
Apslund, Christian  Dates Not available  Canada (lives in USA)	<i>Collection</i>	Frog Peak Music  frogpeak.org	Not avail- able	Brass Quartet and El Gtr.	Not avail- able
Apslund, Christian  Dates Not available  Canada (lives in USA)	<i>Elementals/Ethe</i> <i>rs</i>	Frog Peak Music  frogpeak.org	Not avail- able	Fretless El. Gtr, Microtonal Vibraphone, Conventional Vibraphone.	Not avail- able
Armfelt, Carl  Finland  (b. 1956)	Serenata for 6 Instruments	Finnish Music Information Centre  fimic.fi	6'	Treble Recorder Electric Pno, Pno, Synthesizer, El. Gtr, piano Strings.	1977 – 1979

Azevedo, Carlos Portugal (1949–2012)	<i>Plugged Inês</i>	Portuguese Music Information Centre mic.pt	Not available	Voice, El Gtr, Pno, Db.	2003
Bajoras, Feliksas Lithuania (b. 1934)	Barcarole	Lithuanian Music Information centre mic.It	3'20"	Sax, El Gtr, Bass Gtr, Perc, Pno	1962
Bajoras, Feliksas Lithuania (b. 1934)	<i>Where is the Fathers Granary</i>	Lithuanian Music Information centre mic.It	4'	El. Gtr, Voice, Tpt, Perc, Bass Gtr.	1962
Baker, Tom Dates not available USA	<i>Eleven</i>	Frog Peak Music frogpeak.org	Not available	El. Gtr	Not available
Bång, Malin (b. 1974) Sweden	<i>Spine Reaction</i>	Swedish Music Information Centre mic.se (published by Tons)	10'	El. Gtr Quartet	2010
Barkl, Michael (b. 1958) Australia	<i>Red</i>	Australian Music Centre australianmusiccentre.com.au	Not available	El. Gtr,	1996

Barnes, Milton (1931–2001) Canada	<i>Idyll for Nancy</i>	Canadian Music Centre musiccentre.ca	12’	Version for Fl (Sax), Vln, Vla, Vlc, El. Gtr, El Bass, El. Keyboard, Pno, Perc, Drum Kit.	1980
Barnes, Milton (1931–2001) Canada	Octet	Canadian Music Centre musiccentre.ca	Not available	Fl, A. Sax, El. Gtr, Trap Drums, Pno, Vln, Vla, Vlc, Db.	1985
Barnes, Milton (1931–2001) Canada	<i>Variations on a theme of Haydn: “St. Anthony chorale”, version II</i>	Canadian Music Centre musiccentre.ca	10’	A. Sax, Fl, El Gtr, Trap drums, Glock, Pno, Vln, Vla, Vlc, Bass.	1985
Barrett, Richard (b. 1959) UK	<i>Transmission from ‘Dark Matter’</i>	Theodore Presser Company presser.com	15’	El Gtr, live electronics	1999
Barrett, Richard (b. 1959) UK	<i>Another Heavenly Day</i>	United Music Publishers ump.co.uk	7’	El Gtr, Eb Cl, Db, Live electronics	1998 – 1990
Barrett, Richard (b. 1959) UK	<i>Codex iv</i>	Elision ensemble website elision.org.au	Not available	El Gtr, Rec, Fl, Ob, Cl, Tpt, Trb, Perc, Vlc, Live electronics.	2008



Barrett, Richard  (b. 1959)  UK	<i>Codex iv</i>	Elision ensemble website  elision.org.au	Not avail- able	El Gtr, Ob, Cl, Tpt, Trb, Vlc, Live electronics.	2010
Barrett, Richard  (b. 1959)  UK	<i>Fluxion</i>	United Music Publishers  ump.co.uk	10'	El Gtr, T. Sax, Bass Gtr, Pno.	1996
Barrett, Richard  (b. 1959)  UK	<i>Illuminer le temps</i>	United Music Publishers  ump.co.uk	15'	Picc, B. Cl, El. Gtr, Harp, Vln, Db – amplification for ensemble	1987 – 1990
Barrett, Richard  (b. 1959)  UK	<i>Ars Magna Lucis et Umbrae  From Dark Matter</i>	United Music Publishers  ump.co.uk	16'	Soloist, (2 B. Cl , Voice, Pedal Bass Drum as interference) El. Gtr, 2 Perc, Chamber Organ, 2.0.3.0, 0.0.0.0, 1.1.0.2.0	1996 – 2001
Barrett, Richard  (b. 1959)  UK	<i>De Vita coelitus comparanda</i>	United Music Publishers  ump.co.uk	8'	Bb Cl (3), El. Gtr, Steel String Guitar, Sop, 2 Vlc, 2.0.3.0, 0.0.0.0 2 Perc, Chamber Organ, 1.1.0.2.0	1998 – 2001
Barrett, Richard  (b. 1959)  UK	<i>Wound I-III</i>	United Music Publishers  ump.co.uk	Not avail- able	Ob, Cl, Perc, Lap Steel El. Gtr, Vln, Vlc.	2009 – 2010

Barrett, Richard  (b. 1959)  UK	<i>Opening of the Mouth</i>	United Music Publishers  ump.co.uk	90'	Sop, mez-sop, Fl, Cl, Perc, Mandolin, 12 string El. Gtr, 10 String Acoustic Guitar, Koto, Vln, Vla, Vlc, Sampler.	1992 – 1997
Bastow, Amy  (b. 1985)  Australia	<i>Never OdD or even</i>	Self published	10'	Fl, Cl, El. Gtr, El Bass, Perc, Vlc.	2010
Bastow, Amy  (b. 1985)  Australia	<i>Colours of Black and White</i>	Self published	5'	Ob, Tenor Tbn, Vla, Double Bass, Pno and Solid-bodied El. Gtr	2005
Bastow, Amy  (b. 1985)  Australia	<i>Out of the Loop</i>	Self published	10'	2 El. Gtr, 6- String Bass Gtr, Drum kit and Keyboard	2008
Bastow, Amy  (b. 1985)  Australia	<i>Attention Deficit</i>	Self published	4'	Ob; SATB Sax; El. Gtr; Vibraphone and Pno.	2006
Bauer, Robert  (b. 1950)  Canada	Viola Concerto	Canadian Music Centre  musiccentre.ca	16'25 ”	Pno, El. Gtr, Perc, Vla.	1975

Bauer, Robert  (b. 1950)  Canada	<i>Light Footed</i>	Canadian Music Centre  musiccentre.ca	Not avail- able	Bass Fl, El. Gtr.	1992
Bauer, Robert  (b. 1950)  Canada	<i>Nuovo gamelan 2009: (to my brother Mike)</i>	Canadian Music Centre  musiccentre.ca	9'37"	2 Perc, Pno, El. Gtr, Vlc.	2009
Bazon, Irwin  (b. 1922– 1995)  USA	<i>Symphony No. 3</i>	American Music Information Centre  amc.net	20'	El Gtr, Orchestra.	1962
Bechegas, Carlos  (b. 1957)  Portugal	<i>R. IN</i>	Portuguese Music Information Centre  mic.pt	7'57"	Fl, El Gtr, Live Electronics.	2002
Bechegas, Carlos  (b. 1957)  Portugal	<i>R. Four</i>	Portuguese Music Information Centre  mic.pt	6'30"	Fl, El Gtr, Live Electronics.	2002
Bechegas, Carlos  (b. 1957)  Portugal	<i>R. Off</i>	Portuguese Music Information Centre  mic.pt	6'52"	Fl, El. Gtr and Live Electronics	2002

Bechegas, Carlo  (b. 1957)  Portugal	<i>R. On</i>	Portuguese Music Information Centre  mic.pt	8'56"	Fl, El. Gtr and Live Electronics	2002
Bechegas, Carlos  (b. 1957)  Portugal	<i>R. Six</i>	Portuguese Music Information Centre  mic.pt	7'57"	Fl, El. Guitar and Live Electronics	2002
Bechegas, Carlos  (b. 1957)  Portugal	<i>R. Side</i>	Portuguese Music Information Centre  mic.pt	4'	Fl, El. Guitar and Live Electronics	2002
Bechegas, Carlos  (b. 1957)  Portugal	<i>Right Off</i>	Portuguese Music Information Centre  mic.pt	46'44 "	Fl and El. Gtr	2002
Bechegas, Carlos  (b. 1957)  Portugal	<i>R. Away</i>	Portuguese Music Information Centre  mic.pt	3'45"	Fl, El. Gtr and Live Electronics	2002
Bedford, David  (b. 1937– 2011)  UK	<i>18 Bricks Left on April 21 for Two Electric Guitars</i>	Universal Edition  universaledition.com	Not avail- able	2 El. Gtr.	1968

Bedford, David  (b. 1937– 2011)  UK	<i>Instructions for Angels</i>	Virgin Records  V2090	Not avail- able	El Gtr, Orchestra, Perc, Keyboards, Synthesiser.	1977
Bedford, David  (b. 1937– 2011)  UK	<i>Stars End</i>	British Music Information Centre  bmic.co.uk  Recording by Virgin Records (1974)  VR 13-114	46'	El. Gtr, El Bass Gtr, Perc, Strings.	1974
Bedford, David  (b. 1937– 2011)  UK	<i>The Ones Who Walk Away from Omelas</i>	Universal Edition  universaledition.com	25'	El. Gtr (with dist pedal, Fl, Ob, Cl, Bsn, Timp, Bass Gtr, Vln 1, Vln 2 Vla, Vlc.	1976
Bedford, David  (b. 1937– 2011)  UK	<i>The OCD Band and the Minotaur</i>	Universal Edition  universaledition.com	10'	Sop, Fl, Cl, El. Gtr, Pno, Vln, Vlc.	1990
Bennett, Ed  (b. 1975)  Ireland	<i>Noise Machine</i>	Contemporary Music Centre Ireland  cmc.ie	15'	S. Sax-solo [improvising], Picc, Fl, C. Cl, Tpt, El. Gtr, Perc, Pno, Strings, Electronics.	2008

Bennett, Ed (b. 1975) Ireland	<i>Interference/Interruption I-V</i>	Contemporary Music Centre Ireland  cmc.ie	14'	El. Gtr, Bas Gtr, Vn, Tape [all amplified]	2002
Bennett, Ed (b. 1975) Ireland	<i>Shrigley</i>	Contemporary Music Centre Ireland  cmc.ie	10'	Picc, Fl, B. Cl, 2 A. Sax, Horn, Tpt, 2 Trb, Tuba, Perc, Pno, El. Gtr, Bass Gtr.	2006
Bennett, Ed (b. 1975) Ireland	<i>Black Dots</i>	Contemporary Music Centre Ireland  cmc.ie	6'	S-solo, Mez- solo, T-solo, Bar-solo, Picc, Picc, Fl, Bcl, 2 S. Sax, Horn, Tpt, 2 Trb, Tuba, El. Gtr, Bass Gtr, Perc, Pno.	2003
Bennett, Ed (b. 1975) Ireland	<i>...She has many coloured pins sticking out of her heart.</i>	Contemporary Music Centre Ireland  cmc.ie	4'	S-solo, Mez- solo, T-solo, Bar-solo, Picc, Fl, B. Cl, S. Sax, B. Sax, Tpt, Horn, 2 Trb, Tuba, Perc, Piano, El. Gtr, Bass Guitar.	2001
Berio, Luciano (1925– 2003) Italy	<i>Alleluja II</i>	Edizioni Suvini Zerboni  esz.it	19'	El Gt, 5 Orchestral Groups.	1956 – 1958

Berio, Luciano  (1925– 2003)  Italy	<i>Allez Hop 'racconto mimico'</i>	Edizioni Suvini Zerboni  esz.it	28'	El gtr, mezzo sop, mimes, ballet, orchestra, perc, pno.	1953 – 1959  Rev. 1968
Berio, Luciano  (1925– 2003)  Italy	Divertimento	Edizioni Suvini Zerboni  esz.it	12'	El. Gtr, Pno, Orchestra.	1957
Berio, Luciano  (1925– 2003)  Italy	<i>Nones 'for Mr and Mrs Berberian</i>	Edizioni Suvini Zerboni  esz.it	10'	El. Gtr, Pno, Orchestra.	1954
Bernstein, Leonard  (1918– 1990)  USA	<i>West Side Story</i>	Bossey & Hawkes  Boosey.com	89'	Orchestra (El. Gtr in the orchestra), Musical Cast.	1957
Bermel, Derek  (b. 1967)  USA	<i>Migration Series</i>	Theodore Presser Company  presser.com	32'	Jazz Ensemble, Pno, El. Gtr, Bass, Drums, Orchestra.	2006

Bertolozzi, Joseph (b. 1959)  USA	<i>Trances &amp; Visions</i>	American Music Centre  amc.net	5:30'	Voice, Solo or With Chamber or Jazz Ensemble: Voice with Chamber/Jazz Ensemble, 2-5 Players, (optional El. Gtr)	2010
Betro, Denis (b. 1949)  New Zealand	Concerto for Electric Guitar	denisbetro.com	25'	El. Gtr, 2.2.2.2., 2.2.3.1., Timp, 2 Perc.	1977
Jérôme Blais (b. 1965)  Canada	<i>Plugged 1.8 for electric guitar</i>	Canadian Music Centre  musiccentre.ca	10'	El. Gtr.	2008
Bodley, Seóirse (b. 1933)  Ireland	<i>Configurations</i>	Contemporary Music Centre Ireland  cmc.ie	18'	2222 4331 4 Perc Pno, 2 Harp, Cel, El. Gtr, Strings.	1967
Body, Jack (b. 1944)  New Zealand	<i>Resonance Music</i>	New Zealand Music Centre  sounz.org.nz	12'	El. Gtr, 6 Percussionists.	1974
Brady, Timothy (b. 1956)  Canada	<i>The Body Electric: a Concerto for Electric Guitar and Orchestra</i>	Canadian Music Centre  musiccentre.ca	27'	El. Gtr, Full orchestra.	1997



Brady, Timothy  (b. 1956)  Canada	<i>Double variations</i>	Canadian Music Centre  musiccentre.ca	64'4"	Acoustic Gtr, El. 6 & 12 String Gtrs, Synthesizers, Clapping, Gtr Synthesizer.	1990
Brady, Timothy  (b. 1956)  Canada	<i>Escapement</i>	Canadian Music Centre  musiccentre.ca	18'	S. Sax, Solo El. Gtr – scordatura (C#, G#, D, G, C, D – low to high), Perc (vibraphone, marimba, 4 roto, toms, 1 player), Vlc and Soprano.	1996 – 1997
Brady, Timothy  (b. 1956)  Canada	<i>Imaginary Guitars  CD</i>	Canadian Music Centre  musiccentre.ca  Justin Time records	77'56 ”	Music for El Gtr, Electronics and Tape.	1992
Brady, Timothy  (b. 1956)  Canada	<i>Loud</i>	Canadian Music Centre  musiccentre.ca	17'45 ”	El. Gtr, Full Orchestra.	1993
Brady, Timothy  (b. 1956)  Canada	<i>Ranei te take</i>	Canadian Music Centre  musiccentre.ca	Not avail- able	Soprano, El. Gtr, Digital Keyboards, Perc and Electronic Sound Processing Equipment.	1988
Brady, Timothy  (b. 1956)  Canada	<i>Revolutionary Songs</i>	Canadian Music Centre  musiccentre.ca	Not avail- able	Soprano, Saxophone, violoncello, electric guitar, percussion, piano and tape.	1994

Brady, Timothy  (b. 1956)  Canada	<i>Sauchiehall Street</i>	Canadian Music Centre  musiccentre.ca	Not avail- able	El. Gtr, Tape.	2001
Brady, Timothy  (b. 1956)  Canada	<i>The Songline</i>	Canadian Music Centre  musiccentre.ca	Not avail- able	S. Sax, B. Sax, Vlc, El. Gtr with electronics, pno and perc.	1990 - 1991
Brady, Timothy  (b. 1956)  Canada	<i>Strange Attractors  CD 491</i>	Canadian Music Centre  musiccentre.ca  Justin Time Records	67'32 ”	El gtr, electronics, tape	1997
Brady, Timothy  (b. 1956)  Canada	<i>SWITCH</i>	Canadian Music Centre  musiccentre.ca	Not avail- able	El. Gtr	Not avail- able
Brady, Timothy  (b. 1956)  Canada	<i>Three Cities in the Life of Dr. Norman Bethune  CD 987</i>	Canadian Music Centre  musiccentre.ca  Justin Time Records	48'12 ”	El. Gtr, Sax, Perc, Pno, Vln, Vla, Vlc.	2005
Brady, Timothy  (b. 1956)  Canada	<i>Twenty Quarter Inch Jacks:</i>	Canadian Music Centre  musiccentre.ca	29'11 ”	A work for 20 young (14–18 year old) electric guitarists, commissioned by the Festival international les Coups de Théâtre.	2002

Branca, Glenn  (b. 1947)  USA	<i>Acoustic Phenomena</i>	Refer to the composer's  website  glennbranca.com	Not avail- ble	8 El. Gtr, Bass Gtr, Drum Kit.	1983
Branca, Glenn  (b. 1947)  USA	<i>Chords</i>	Refer to the composer's  website  glennbranca.com	Not avail- ble	8 El. Gtr, Bass Gtr, Drum Kit.	1986
Branca, Glenn  (b. 1947)  USA	<i>Dissonanca</i>	Refer to the composer's  website  glennbranca.com	Not avail- ble	4 El. Gtr, Bass Gtr, Drum Kit.	1979
Branca, Glenn  (b. 1947)  USA	<i>Indeterminate Activity of Resultant Masses</i>	Refer to the composer's  website  glennbranca.com	Not avail- ble	8 El. Gtr, Bass Gtr, Drum Kit.	1981
Branca, Glenn  (b. 1947)  USA	<i>Instrumental</i>	Refer to the composer's  website  glennbranca.com	Not avail- ble	6 El. Gtr	1979
Branca, Glenn  (b. 1947)  USA	<i>Lesson No. 1 (for electric guitar)</i>	Refer to the composer's  website  glennbranca.com	Not avail- ble	4 El. Gtr, Bass Gtr, Drum Kit.	1979

Branca, Glenn (b. 1947) USA	<i>Lesson No. 2</i>	Refer to the composer's website  glennbranca.com	Not available	8 El. Gtr, Bass Gtr, Drum Kit.	1981
Branca, Glenn (b. 1947) USA	<i>Light Field</i>	Refer to the composer's website  glennbranca.com	Not available	4 El. Gtr, Bass Gtr, Drum Kit.	1980
Branca, Glenn (b. 1947) USA	<i>Mambo Diabolique</i>	Refer to the composer's website  glennbranca.com	Not available	4 El. Gtr, Bass Gtr, Drum Kit.	1981
Branca, Glenn (b. 1947) USA	<i>Movement Within (for Harmonic Series Instruments)</i>	Refer to the composer's website  glennbranca.com	Not available	Glenn Branca Ensemble	1997
Branca, Glenn (b. 1947) USA	<i>Music for a film by Dan Graham</i>	Refer to the composer's website  glennbranca.com	Not available	4 El. Gtr, Bass Gtr, Drum Kit.	1980
Branca, Glenn (b. 1947) USA	<i>Music for the Murobushi Company (Ascent)</i>	Refer to the composer's website  glennbranca.com	Not available	8 El. Gtr, Bass Gtr, Drum Kit.	1986

Branca, Glenn (b. 1947) USA	<i>Symphony No. 1 (Tonal Plexus)</i>	Refer to the composer's website  glennbranca.com	Not avail- ble	4 El. Gtr, Bass Gtr, Drum Kit.	1981
Branca, Glenn (b. 1947) USA	<i>Symphony No. 2 (The Peak of the Sacred)</i>	Refer to the composer's website  glennbranca.com	Not avail- ble	8 El. Gtr, Bass Gtr, Drum Kit.	1982
Branca, Glenn (b. 1947) USA	<i>Symphony No. 3 (Gloria)</i>	Refer to the composer's website  glennbranca.com	Not avail- ble	8 El. Gtr, Bass Gtr, Drum Kit.	1983
Branca, Glenn (b. 1947) USA	<i>Symphony No. 4 (Physics)</i>	Refer to the composer's website  glennbranca.com	Not avail- ble	8 El. Gtr, Bass Gtr, Drum Kit.	1983
Branca, Glenn (b. 1947) USA	<i>Symphony No. 5 (Describing Planes of an Expanding Hypersphere))</i>	Refer to the composer's website  glennbranca.com	Not avail- ble	8 El. Gtr, Bass Gtr, Drum Kit.	1984
Branca, Glenn (b. 1947) USA	<i>Symphony No. 6 (Devil Choirs at the Gates of Heaven)</i>	Refer to the composer's website  glennbranca.com	Not avail- ble	10 El. Gtr, Bass Gtr, Keyboards, Perc.	1988

Branca, Glenn (b. 1947) USA	<i>Symphony No. 8 (The Mystery)</i>	Refer to the composer's website  glennbranca.com	Not avail- ble	8 El. Gtr, Bass Gtr, Drum Kit.	1994
Branca, Glenn (b. 1947) USA	<i>Symphony No. 10 (The Mystery Pt. 2)</i>	Refer to the composer's website  glennbranca.com	Not avail- ble	8 El. Gtr, Bass Gtr, Drum Kit.	1994
Branca, Glenn (b. 1947) USA	<i>Symphony No. 12 (Tonal Sexus)</i>	Refer to the composer's website  glennbranca.com	Not avail- ble	10 El. Gtr, Drum Kit.	1998
Branca, Glenn (b. 1947) USA	<i>Symphony No. 13 (Hallucination City)</i>	Refer to the composer's website  glennbranca.com	Not avail- ble	91 El. Gtr, 18 Bass Gtr, Drum Kit.	Not avail- ble
Branca, Glenn (b. 1947) USA	<i>The Ascension</i>	Refer to the composer's website  glennbranca.com	Not avail- ble	4 El. Gtr, Bass Gtr, Drum Kit.	1980
Branca, Glenn (b. 1947) USA	<i>The Whole Field</i>	Refer to the composer's website  glennbranca.com	Not avail- ble	6 El. Gtr	1979

Branca, Glenn  (b. 1947)  USA	<i>Music for Bad Smells</i>	Refer to the composer's  website  glennbranca.com	Not avail- ble	8 El. Gtr, Bass Gtr, Drum Kit.	1982
Branca, Glenn  (b. 1947)  USA	<i>The Spectacular Commodity</i>	Refer to the composer's  website  glennbranca.com	Not avail- ble	4 El. Gtr, Bass Gtr, Drum Kit.	1979
Branca, Glenn  (b. 1947)  USA	<i>Music for Edmond</i>	Refer to the composer's  website  glennbranca.com	Not avail- ble	8 El. Gtr, Bass Gtr, Drum Kit.	1986
Brennan, John Wolf  (b. 1954)  Ireland	<i>Mountain Songline 1</i>	Contemporary Music Centre Ireland  cmc.ie	5'	El. Gtr, Pno, Drum Kit.	1989
Brennan, John Wolf  (b. 1954)  Ireland	<i>Flora</i>	Contemporary Music Centre Ireland  cmc.ie	5'	El. Gtr, Pno.	1988
Brennan, John Wolf  (b. 1954)  Ireland	<i>Il Deserto Rosso</i>	Contemporary Music Centre Ireland  cmc.ie	5'	T. Sax, El. Gtr, Drum Kit.	1988
Brero, Giulio Cesare	<i>7 Quartine</i>	Ricordi  Ricordi.it	12'	El. Gtr, Female Chorus, Orchestra, 2 Pno.	1964

Brero, Giulio Cesare  (1908– 1973)  Italy	<i>Poemi Giapponesi</i>	Ricordi  Ricordi.it	20'	El. Gtr, Chorus, Orchestra.	1961
Bresnick, Martin  (b. 1946)  USA	<i>Fantasy on a Theme by Willie Dixon</i>	Theodore Presser Company  presser.com	Not avail- able	El. Gtr, Cl, Vln, El. Organ, Drums, Vibraphone, Pno.	Not avail- able
Brown, Earle  (1926– 2002)  USA	<i>Indices</i>  (Ballet)	<a href="http://www.earle-brown.org/">http://www.earle- brown.org/</a>	28'	El. Gtr, Fl, Horn, Trumpet, Perc, Pno, Strings.	1954
Buckley, Linda  (b. 1979)  Ireland	<i>Bobeobi</i>	Contemporary Music Centre Ireland  cmc.ie	4'	enor (solo), Baritone (solo), Fl, B. Cl, A. Sax B. Sax, Tpt, 2 Horn, 2 Tbn, Tuba, El. Gtr, B. Gtr, Drum Kit, pno.	2005
Buckley, Irene  (b. 1979)  Ireland	<i>For de Ereprijis</i>	Contemporary Music Centre Ireland  cmc.ie	Not avail- able	2 S-solo, Mez- solo, Fl, A. Fl, Cl, A. Sax, B. Sax, Horn, Tpt, Tbn, Tuba, Perc, Pno, El. Gtr, B. Gtr.	2008



Burritt, Lloyd  Dates not available  Canada	<i>David</i>	Canadian Music Centre  musiccentre.ca	26'	Boy Soprano, Tenor, Baritone, SA Chorus (children's), SATB Chorus, Picc, B. Cl, A. Sax, T. Sax 2/4331, Timp, Perc, 3 Gtrs (acoustic & electric), Strings, Prepared Tape.	1977
Butterfield, Christopher  (b. 1952)  Canada	Quintet – <i>Dear Stalin</i>	Canadian Music Centre  musiccentre.ca	Not avail- able	Tuba, Perc, El. Gtr, Accordion, Pno.	1994
Byrne, Andrew  Dates not available  Australia	<i>Ascension</i>	Australian Music Centre  australianmusiccentre.co m.au	Not avail- able	El. Gtr, Bass Gtr, 2 Keyboards, Vln.	2000
Caffrey, Greg  (b. 1963)  Ireland	<i>Bockschaun</i>	Contemporary Music Centre Ireland  cmc.ie	8'	Fl, B. Cl, El. Gtr, Vib, Tape.	2007
Cameron, Allison  (b. 1963)  Canada	<i>Leisure 2</i>	Canadian Music Centre  musiccentre.ca	Not avail- able	B. Cl, S. Sax, B. Sax, Tpt, Tbn, El. Gtr, Perc, Vln, Db, Pno.	1996

Canning, Rob (b. 1974) Ireland	<i>Creole</i>	Contemporary Music Centre Ireland cmc.ie	7'	Cl, S. Sax, El Gtr, Perc, 2 Vln, Vla, Vlc.	1999
Canino, Bruno (b. 1935) Italy	<i>A Due</i>	Casa Ricordi ricordi.it	Not available	El. Gtr, Pno.	1967
Carpenter, Patrick E. (b. 1951) Canada	<i>Les pierres de grise</i>	Canadian Music Centre musiccentre.ca	Not available	34 Eng Horn, 4 B. Cl, 3 S. Sax, 3330, Timp, Perc, El. Gtr, Cel, Strins (3-3-3-3).	1977
Carvalho, Dioge Novo Dates not available Portugal	<i>Todos os Dias Encontrar</i>	Portuguese Music Information Centre mic.pt	10'	Fl, Cl in A, Bsn, Perc, El. Gtr, Children's choir, Soprano, Pno and String quintet	2006
Chan, Ka Nin (b. 1949) Canada	<i>Consequential Web of Life</i>	Canadian Music Centre musiccentre.ca	25'8"	Percussion Soloist, Electric Guitar, Specially-Constructed String Instrument and Chamber Orchestra and Tape.	2010

Chapela Enrico (b. 1974) Mexico	<i>Lo nato es neta</i>	Boosey & Hawkes Boosey.com	27'	Suite for Rock Trio and Acoustic Quintets	2001 - 2003
Chapela Enrico (b. 1974) Mexico	<i>Noctámbulos</i>	Boosey & Hawkes Boosey.com	30'	Concerto for Rock Trio and Orchestra	2008
Chatham, Rhys (b. 1953) USA	<i>64 Short Stories</i>	Refer to the composer's website  rhythchatham.com	20'	El. Gtr, Bass Gtr, Drum Kit and 35mm slide projection	1981
Chatham, Rhys (b. 1953) USA	<i>An Angel Moves Too Fast to See</i>	Refer to the composer's website  rhythchatham.com	70'	100 El. Gtr, Bass Gtr, Drum Kit	1989
Chatham, Rhys (b. 1953) USA	<i>Candenza</i>	Refer to the composer's website  rhythchatham.com	10'	4 El. Gtr, Drum Kit.	1981

Chatham, Rhys (b. 1953) USA	<i>Crimson Grail</i>	Refer to the composer's website  rhythchatham.com	Not avail- able	400 El. Gtr	2005
Chatham, Rhys (b. 1953) USA	<i>Die Donnergötter</i>	Refer to the composer's website  rhythchatham.com	20'	6 El. Gtr, Bass Gtr, Drum Kit	1984 - 1986
Chatham, Rhys (b. 1953) USA	<i>Drastic Classicism</i>	Refer to the composer's website  rhythchatham.com	16'	4 El. Gtr, Bass Gtr, Drum Kit	1981
Chatham, Rhys (b. 1953) USA	<i>Guitar Ring</i>	Refer to the composer's website  rhythchatham.com	15'	4 El. Gtr, Drum Kit	1982
Chatham, Rhys (b. 1953) USA	<i>Guitar Trio</i>	Refer to the composer's website  rhythchatham.com	25'	3 El. Gtr, Bass Gtr, Drum Kit.	1977

Chatham, Rhys (b. 1953) USA	<i>Journey to the End of the Night</i>	Refer to the composer's website  rhythchatham.com	Not avail- able	6 El. Gtr, Bass Gtr, Drum Kit.	1989
Chatham, Rhys (b. 1953) USA	<i>Merci, Chopin</i>	Refer to the composer's website  rhythchatham.com	11'	4 El. Gtr, Bass Gtr, Drum Kit.	1986
Chatham, Rhys (b. 1953) USA	<i>Minerva</i>	Refer to the composer's website  rhythchatham.com	20'	6 El. Gtr, Bass Gtr, Drum Kit.	1986
Chatham, Rhys (b. 1953) USA	<i>The Out of tune Guitar, No. 3</i>	Refer to the composer's website  rhythchatham.com	5'	4 El. Gtr, Bass Gtr.	1988
Chatham, Rhys (b. 1953) USA	<i>Untitled</i>	Refer to the composer's website  rhythchatham.com	15'	4 El. Gtr, Bass Gtr, Drum Kit.	1987
Chatham, Rhys (b. 1953) USA	<i>Warehouse of Saints: Songs for Spies</i>	Refer to the composer's website  rhythchatham.com	75'	100 El Gtr, Bass Gtr, Drum Kit.	1991

Chatham, Rhys (b. 1953) USA	<i>Acoustic Terror</i>	Refer to the composer's website  rhythchatham.com	12'	El Gtr, Drum Kit.	1979
Chatham, Rhys (b. 1953) USA	<i>The Out of Tune Guitar, No. 1</i>	Refer to the composer's website  rhythchatham.com	25'	3 El. Gtr, Bass Gtr, Drum Kit.	1978
Chatham, Rhys (b. 1953) USA	<i>The Out of Tune Guitar, No. 2</i>	Refer to the composer's website  rhythchatham.com	5'	4 El Gtr, Drum Kit.	1983
Chatham, Rhys (b. 1953) USA	<i>Tone Death</i>	Refer to the composer's website  rhythchatham.com	35'	2 El Gtr, T. Sax, Drum Kit.	1977
Chatham, Rhys (b. 1953) USA	<i>Untitled</i>	Refer to the composer's website  rhythchatham.com	30'	El. Gtr, Amplified Trumpet – interactive MIDI electronics.	1996
Chatham, Rhys (b. 1953) USA	<i>Wild Romance</i>	Refer to the composer's website  rhythchatham.com	15'	4 El. Gtr, Bass Gtr, Drum Kit.	1980

Chatham, Rhys (b. 1953) USA	<i>The Heart Cries with many Voices</i>	Refer to the composer's website  rhythchatham.com	60'	2 El. Gtr, 2 Trumpets, Bass Gtr, Drum Kit.	1990
Chatham, Rhys (b. 1953) USA	<i>XS</i>	Refer to the composer's website  rhythchatham.com	90'	6 El. Gtr, 3 Soprano, 4 trumpet, Bass Guitar, Drum Kit – 35mm slide projection, dance.	1985 - 1986
Chatham, Rhys (b. 1953) USA	<i>Vertige</i>	Refer to the composer's website  rhythchatham.com	35'	El. Gtr, Dancer.	1979
Chatham, Rhys (b. 1953) USA	<i>Book 1 of 9</i>	Refer to the composer's website  rhythchatham.com	Not avail- able	Microtonal El Gtr.	1998
Chatham, Rhys (b. 1953) USA	<i>The Feast</i>	Refer to the composer's website  rhythchatham.com	50'	El. Gtr, Tape, Dancer.	1982
Chatham, Rhys (b. 1953) USA	<i>Music to Tauromaquia</i>	Refer to the composer's website  rhythchatham.com	90'	100 El. Gtr, Bass Gtr, Drum Kit.	1992 - 1993

Chasalow, Eric (b. 1955) USA	<i>'Scuse Me</i>	American Music Centre amc.net	6'	El. Gtr, 1 Pre- recorded Sound	1998
Clancy, Seán (b. 1984) Ireland	<i>Accidents Happen</i>	Contemporary Music Centre Ireland cmc.ie	7'	A. Sax, Vla, El. Gtr, 2 Perc, Pno.	2010
Clancy, Seán (b. 1984) Ireland	<i>Irréversible</i>	Contemporary Music Centre Ireland cmc.ie	3'	2 S-solo, Mez- solo, Picc, Fl, B. Cl, A. Sax, B. Sax, Horn, Tpt, 2 Tbn, Tuba, 2 Perc, El. Gtr, B. Gtr, Pno.	2010
Charke, Derek (b. 1974) Canada	<i>Netsiksiuvik : 'The place of seals'</i>	Canadian Music Centre musiccentre.ca	Not avail- able	S. Sax, A. Sax, T. Sax, B. Sax, 1 Bb Tpt/Flugel Horn, 1 Tbn, 1 Marimba, 1 Pno, 1 Vn, 1 El. Gtr, 1 Bass Gtr, 1 Soprano Voice, 1 Alto Voice, 1 Tenor Voice, 1 Baritone Voice	1999
Crumb, George (b. 1929) USA	<i>Songs, Drones and Refrains of Death</i>	C.F. Peters (P66463)	29'	Barritone voice, El. Gtr, amplified dbl bass, amplified pno/amplified harpsichord, and two percussionists	1968



D'Angelo, Gaspare (b. 1955) Italy	<i>Electric Suite</i>	Casa Ricordi  ricordo.it	10	El. Gtr	1995
Davie, Victor (b. 1939) Canada	<i>Noise Ploys</i>	Canadian Music Centre  musiccentre.ca	5'	Ballet for children's concerts for symphony orchestra. 222/4331, Timp, Perc, Electric Guitar, Piano, strings.	1973
Davie, Victor (b. 1939) Canada	<i>Pulsations</i>	Canadian Music Centre  musiccentre.ca	33'	Solo El. Vln/3222/4331, Timp, Perc (2), Drums, Pno (Acoustic and Electric), Bass Guitar, El. Guitar, Strings.	1978
Day, Julian (b. 1975) Australia	<i>Teeth</i>	Self Published  julianday.com	12'	T. Sax, Vlc, El. Gtr, El Bass, Piano, Drums.	2010
Day, Julian (b. 1975) Australia	<i>Night Nurse (This Thing Deep Inside You It Will Kill You)</i>	Self Published  julianday.com	7'	2 x El. Gtr, El. Bass, Synthesizer, Drums.	2008
Day, Julian (b. 1975) Australia	<i>Beginning To Collapse</i>	Self Published  julianday.com	11'	Fl, A. Sax, T. Sax, Perc, Harp, El Gtr, Pno, 2 Vln, 3 Vls, Vlc & CD	2007

Day, Julian (b. 1975) Australia	<i>Brink (A Gothic Fantasy In Seven Divisions)</i>	Self Published julianday.com	7'	4 El. Gtr	2003
Day, Julian (b. 1975) Australia	<i>Dead Girl</i>	Self Published julianday.com	13'	A. Sax, El. Gtr, El. Bass, Synthesizer, Drumkit.	2002
Day, Julian (b. 1975) Australia	<i>Bleed</i>	Self Published julianday.com	4'	Bcl, El. Gtr, Vln, Vlc, Piano, Perc.	Not avail- able
Day, Julian (b. 1975) Australia	<i>X-RAY</i>	Self Published julianday.com	Not avail- able	El. Gtr, 2 x Digital Pianos, El. Organ.	2001
Day, Julian (b. 1975) Australia	<i>Skoliosis Skank</i>	Self Published julianday.com	Not avail- able	20 piece Amplified Ensemble, El. Gtr.	1999
Dean, Brett (b. 1961) Australia	<i>Bliss: An Opera in Three Acts</i>	Boosey & Hawkes boosey.com	3 hours	El.G tr, Vocal soloists, Orchestra, Pno, Synth, Electronic Sounds.	2010
Dean, Brett (b. 1961) Australia	<i>Game Over</i>	Boosey & Hawkes boosey.com	14'	Cl, El. Gtr, Perc, Pno, El. Vln, Vlc, Db, Strings, 4.4.3.3.1 – Amplification, Multi-Track Tape, CD player.	2000

Dean, Brett (b. 1961) Australia	<i>Songs of Joy</i>	Boosey & Hawkes boosey.com	20'	Baritone, 3.2.3.2, 4.2.3.1, Timp, 3 Perc, Hrp, El. Gtr, Strgs.	2008
Dench, Chris (b. 1953) UK lives in Australia	<i>Blood Music</i>	British Music Information Centre bmic.co.uk	11'	El. Gtr, Cl, Vibes.	2005
Denio, Amy (b. 1961) USA	<i>Busara</i>	American Music Centre amc.net	4'20'	1 Cl soloist(s), 1 Perc (General), 1 Accordion, 1 Gtr (Classical/Acou stic), 1 El. Bass, 1 El. Gtr, ,2 Soprano soloist(s)	2001
Denio, Amy (b. 1961) USA	<i>Le Orechiette Benevolenti</i>	American Music Centre amc.net	3'13'	1 Cl soloist(s), 1 Perc (General), 1 Gtr (Classical/Acou stic), 1 El. Bass, 1 El. Gtr, ,1 Soprano soloist(s), ,1 Mezzo-Soprano soloist(s)	2003
Denio, Amy (b. 1961) USA	<i>Mercato Busarese</i>	American Music Centre amc.net	5'43'	1 Cl soloist(s), 1 Perc (General), 1 Gtr (Classical/Acou stic), 1 El. Bass, 1 El. Gtr, ,2 Soprano soloist(s)	2001

Denio, Amy (b. 1961) USA	<i>Zemrude</i>	American Music Centre amc.net	3'49"	1 Perc (General), 1 Accordion, 1 Gtr (Classical/Acou stic), 1 El. Bass, 1 El. Gtr, ,2 Soprano soloist(s)	2001
Denio, Amy (b. 1961) USA	<i>Berenoci</i>	American Music Centre amc.net	4'17"	1 A. Sax soloist(s), 1 Perc (General), 1 Gtr (Classical/Acou stic), 1 El. Bass, 1 El. Gtr, 2 Soprano soloist(s)	2001
Denio, Amy (b. 1961) USA	<i>Le Memorie Sparite</i>	American Music Centre amc.net	4'1"	1 A. Sax soloist(s), 1 Perc (General), 1 Guitar (Classical/Acou stic), 1 El. Bass, 1 El. Gtr, ,2 Soprano soloist(s)	2001
Denio, Amy (b. 1961) USA	<i>Ambusaraba</i>	American Music Centre amc.net	3'2"	1 Perc (General), 1 Accordion, 1 Gtr (Classical/Acou stic), 1 El. Bass, 1 El. Gtr, ,1 Soprano soloist(s), 1 S	2001

Denio, Amy (b. 1961) USA	<i>Canzone Lunga</i>	American Music Centre amc.net	6'53"	1 Perc (General), 1 Accordion, 1 Gtr (Classical/Acou stic), 1 El. Bass, 1 El. Gtr, 1 Soprano, 1 Soprano soloist(s)	2003
Denio, Amy (b. 1961) USA	<i>Non Lo So</i>	American Music Centre amc.net	5'21"	1 Cl, 1 Perc (General), 1 Guitar (Classical/Acou stic), 1 El. Bass, 1 El. Gtr, 1 S, 1 S soloist(s)	2001
Dennehy, Donnacha (b. 1970) Ireland	<i>Aisling Gheal</i>	Contemporary Music Centre Ireland cmc.ie	9'	2 S-solo, Mez- solo, Picc, Fl, B. Cl, A. Sax, B. Sax, Horn, Tpt, 2 Tbn, Tuba, 2 Perc, El. Gtr, B. Gtr, Pno.	2007
Dennehy, Donnacha (b. 1970) Ireland	<i>Grá Agus Bás</i>	Contemporary Music Centre Ireland cmc.ie	28'	Voice, Picc, Fl, Cl, B. Cl, Tbn, El. Gtr, Perc, Vln, Vla, Vlc, Db, live electronics.	2007
Dennehy, Donnacha (b. 1970) Ireland	<i>Streetwalker</i>	Contemporary Music Centre Ireland cmc.ie	12'	Cl, B. Cl, El. Gtr, Perc, [vib, bdm, sdm, cowbells], Pno, Vlc, Db.	2003

Dejonghe, Koen  (b. 1957)  Belgium	<i>Ket</i>	Netherlands New Music Centre  matrix-new-music.be/en	Not avail- able	Orchestra, El. Gtr (opera).	2000 – 2001
Diemente, Edward  (b. 1923)  USA	<i>Unvelopement</i>	Publishing details not available	Not avail- able	Db, Wind, El. Gtr, Celesta.	1970
Direen, William (Bill)  Dates not available  New Zealand	<i>Alien</i>	New Zealand Music Centre  sounz.org.nz	3'30"	Voice, El. Gtr, Organ, Drums, Bass.	1978
Dobson, Elaine  (b. 1945)  UK  (lives in New Zealand)	<i>Below the Horizon</i>	New Zealand Music Centre  sounz.org.nz	10'	El. Gtr, Cl.	1983
Dolden, Paul  (b. 1956)  Canada	<i>The frenzy of banging on a can</i>	Canadian Music Centre  musiccentre.ca	13'	B. Cl (B-flat cl), El. Gtr, Drum Kit (Vibraphone), Vlc, Double Bass, Pno, Tape.	1996

Dolden, Paul  (b. 1956)  Canada	<i>Physics of Seduction</i>	Canadian Music Centre  musiccentre.ca	16'	El gtr, Tape	1991
Dolden, Paul  (b. 1956)  Canada	<i>Twilight #3: for 2 electric guitars and tape</i>	Canadian Music Centre  musiccentre.ca	14'42" "	2 el gtr, Tape	2003
Dolden, Paul  (b. 1956)  Canada	<i>The Vertigo of ritualized frenzy: Resonance #4</i>	Canadian Music Centre  musiccentre.ca	13'	Exists in a version for 2 Electric Guitars and Tape.	1996
Doran, Christy  (b. 1949)  Ireland	<i>Axelstein</i>	Contemporary Music Centre Ireland  cmc.ie	6'	El. Gtr, 2 Db, Drum kit, Perc.	Not available
Doran, Christy  (b. 1949)  Ireland	<i>Back to Front</i>	Contemporary Music Centre Ireland  cmc.ie	17'	A. Sax, S. Ssax, T. Sax, Tpt, El. Gtr, Db, Drum kit, Pno, El. Pno, Keyboard, 2 Perc, Voice.	Not available
Doran, Christy  (b. 1949)  Ireland	<i>Flight Through the Tunnel</i>	Contemporary Music Centre Ireland  cmc.ie	2'	El. Gtr, El. Bass Drum kit.	Not available

Doran, Christy  (b. 1949)  Ireland	<i>Half a Lifetime</i>	Contemporary Music Centre Ireland  cmc.ie	11'	El. Gtr, Drum kit, Perc.	Not avail- able
Doran, Christy  (b. 1949)  Ireland	<i>Mads Dogs and Englishmen</i>	Contemporary Music Centre Ireland  cmc.ie	4'	El. Gtr, Drum kit, Perc, Live electronics.	Not avail- able
Doran, Christy  (b. 1949)  Ireland	<i>Phoenix</i>	Contemporary Music Centre Ireland  cmc.ie	10'	El. Gtr, 2 Db, Drum kit, Perc.	Not avail- able
Doran, Christy  (b. 1949)  Ireland	<i>Siren</i>	Contemporary Music Centre Ireland  cmc.ie	8'	El. Gtr, 2 Db, Drum kit, Perc.	Not avail- able
Doran, Christy  (b. 1949)  Ireland	<i>Solitude</i>	Contemporary Music Centre Ireland  cmc.ie	5'	El. Gtr	Not avail- able
Doran, Christy  (b. 1949)  Ireland	<i>Voressen</i>	Contemporary Music Centre Ireland  cmc.ie	4'	A. Sax, El Gtr, Db, Drum kit, Perc, Live electronics.	Not avail- able
Doran, Christy  (b. 1949)  Ireland	<i>Circumstances</i>	Contemporary Music Centre Ireland  cmc.ie	4'	El. Gtr, El Bass, Drum Kit.	1997



Doran, Christy  (b. 1949)  Ireland	<i>Incognito</i>	Contemporary Music Centre Ireland  cmc.ie	12'	El. Gtr, El Bass, Drum Kit.	1997
Doran, Christy  (b. 1949)  Ireland	<i>Never Done</i>	Contemporary Music Centre Ireland  cmc.ie	8'	El. Gtr, El Bass, Drum Kit.	1997
Doran, Christy  (b. 1949)  Ireland	<i>New Outline</i>	Contemporary Music Centre Ireland  cmc.ie	8'	El. Gtr, El Bass, Drum Kit.	1997
Doran, Christy  (b. 1949)  Ireland	<i>No Matter Where You Roam</i>	Contemporary Music Centre Ireland  cmc.ie	9'	El. Gtr, El Bass, Drum Kit.	1997
Doran, Christy  (b. 1949)  Ireland	<i>Race the Time</i>	Contemporary Music Centre Ireland  cmc.ie	12'	El. Gtr, El Bass, Drum Kit.	1997
Doyle, Roger  (b. 1949)  Ireland	<i>Mr Brady's Room</i>	Contemporary Music Centre Ireland  cmc.ie	10'	El. Gtr, tape.	1992 rev. 1994

Dufourt, Hugues  (b. 1943)  France	<i>L'île Sonnante for Percussion and Electric Guitar</i>	Theodore Presser Company  presser.com	Not avail- able	El. Gtr, Perc.	Not avail- able
Duhamel, Antoine  (b. 1925)  France	<i>Le Concile Fréérique</i>	Musique Nouvelle en Liberté  <a href="http://www.mnl-paris.com/web/association">http://www.mnl- paris.com/web/associatio n</a>	45'	El. Gtr, Sax, ensemble, 5 part chorus, Perc, Dbl Bass, Harp.	1958
Dwyer, Benjamin  (b. 1965)  Ireland	<i>Omeros II</i>	Contemporary Music Centre Ireland  cmc.ie	22'	Picc, F, A. Fl t. Rec, B. Rec, Ob S. Sax, Acoustic Gtr, El. Gtr, 2 Perc, Vln, Vlc, Tape.	2002
Dzenītis, Andris  Dates and nationality not available	<i>Stencil of Time</i>	Musica Baltica  <a href="http://musicabaltica.com/">musicabaltica.com/</a>  also on accessible at  Latvian Music Information Centre  lmic.lv	11'	El. Gtr, Vlc, Electronics.	2008
Dzenītis, Andris  Dates and nationality not available	<i>Bird</i>	Latvian Music Information Centre  lmic.lv	8'	El. Gtr, Electronics.	2007

Dzenītis, Andris  Dates and nationality not available	<i>Black Cherry, Verso II</i>	Latvian Music Information Centre  lmic.lv	11'	El. Gtr, Electronics.	2007
Dzenītis, Andris  Dates and nationality not available	<i>Wind Rose. City shape turbulence</i>	Latvian Music Information Centre  lmic.lv	30'	El. Gtr, programming and electronics	2007
Dzenītis, Andris  Dates and nationality not available	<i>Grace</i>	Latvian Music Information Centre  lmic.lv	Not avail- able	El. gtr, electronics	2007
Engleman, Hans Ulrich  (b. 1921)  Germany	<i>Noche de Luna  (Ballet)</i>	Breitkopf & Härtel  breitkopf.com	15'	El. gtr, strings (sans dbl bass), Fl, S. Sax, Tpt, Tbn, Perc, Harp, harpsichord.	1958
Erb, Donald  (b. 1927)  USA	<i>String Trio</i>	Theodore Presser Company  presser.com	10'	Vln, Vlc, El. Gtr.	1966
Farrin, Suzanne  Dates not available  USA	<i>“From Fair and Fur...”</i>	American Music Centre  amc.net	6'8”	2 Vibraphone, 1 El. Gtr.	2002

Feery, Amanda  Dates not available  Ireland	<i>If the Chemistry is Right</i>	Contemporary Music Centre Ireland  cmc.ie	4'	Picc, Fl, B. Cl, A. Sax, B. Sax, Horn, Tpt, 2 Tbn, Tuba, 4 Timp, Drum kit, El. Gtr, B. Gtr, Pno.	2009
Feery, Amanda  Dates not available  Ireland	<i>Zeitgeber</i>	Contemporary Music Centre Ireland  cmc.ie	13'	Cl, B. Cl, Tbn, Drum kit, El. Gtr, Pno, Vln, Vlc.	2009
Feldman, Morton  (1926–1987)  USA	<i>The Possibility of a New Work for Electric Guitar</i>	This works has been lost.  Christian Wolff gave the Premiere	Not available	El. Gtr.	1966
Fennessy, David  (b. 1976)  Ireland	<i>PPP</i>	Contemporary Music Centre Ireland  cmc.ie	47'	3 B. Cl, Vlc, Pno, El. Gtr, Autoharp Harmonium, Tape, Live Electronics.	2004
Fennessy, David  (b. 1976)  Ireland	<i>Dreaming is Free</i>	Contemporary Music Centre Ireland  cmc.ie	15'	2 Fl, A. Sax, T, Sax, B. Sax, 3 Tbn, 2 Perc, Harp, 2 Pno, 2 El. Gtr, Db [all amplified]	2002
Fennessy, David  (b. 1976)  Ireland	<i>Airbrush</i>	Contemporary Music Centre Ireland  cmc.ie	15'	A. Sax, El. Gtr, Perc, Vlc, Pno, CD [all amplified]	2001
Flynn, Dave  (b. 1977)  Ireland	<i>Polymetric Circles</i>	Contemporary Music Centre Ireland  cmc.ie	8'	Picc, Fl, Ob, Cl, B. Cl, A. Sax, El. Gtr, Vib, Pno, Vln, Vlc, Db.	2003

Freedman, Harry (1922–2005) Canada	<i>1838</i>	Canadian Music Centre musiccentre.ca	Not available	For SATB (some playing drums) and piano. (The piano part may be played by El. Gtr and bass).	1983
Frey, Jürg (b. 1953) Switzerland	<i>Les tré fonds inexplorés des signes No 6-17</i>	wandelmeiser.de	2'-4'	2 El. Gtr, 2 Cl.	2007
Frey, Jürg (b. 1953) Switzerland	<i>Wen 46</i>	wandelmeiser.de	5'50'	El. Gtr.	2007
Foss, Lukas (1922–2009) USA	<i>Night Music</i>	Theodore Presser Company presser.com	15'	Tpt, Horn, Tenor, Tuba, Fl, Ob, Cl, Bsn, Pno, El. Guitar, Perc, Vln, Vla, Vlc, Contrabass	Not available
Fields, Scott (b. 1956) USA	<i>From the Diary of Dog Drexel: 5 Mvt work</i>	American Music Centre amc.net	Not available	1 Ob, 1 English Horn, 1 Cl, 1 S.Sax, 1 Tpt, 1 Perc (General), 1 Marimba, 1 Vibraphone, El. Gtr doubling nylon string gtr.	2002
Fields, Scott (b. 1956) USA	<i>Giuliani Ferret Christ</i>	American Music Centre amc.net	Not available	Shakuhachi, Turntable (doubling soprano voice), Perc (doubling Theremin), and El. Gtr	2002

Finney, Ross Lee  (1906– 1997)  USA	<i>The Nun's Priest's Tale</i>	Edition Peters  edition-peters.com	16'	Tenor Narrator, Soprano, Baritone, Bass Solo Folksong Singer (Electric Guitar), Small Chorus (4 Male, 4 Female), Orchestra (Text: Chaucer – English).	Not avail- able
Fox, Malcolm J.  (1945– 1997)  Australia	<i>Time and Motion Study No. 1</i>	Australian Music Centre  australianmusiccentre.co m.au	4'	El. Gtr	1969
Gardner, Stephen  (b. 1956)  Ireland	<i>They Think It's All Over</i>	Contemporary Music Centre Ireland  cmc.ie	6'	S. Sax, A. Sax, T. Sax, Vln, Vlc, El. Gtr, El. Bass, 2 Pno [all amplified]	1995 rev. 1996
Garuti, Mario  (b. 1957)  Italy	<i>Tadbir</i>	Casa Ricordi  ricordi.it	13'	Perc, El. Gtr.	1996

Gellman, Steven  (b. 1947)  Canada	<i>Odyssey: for rock group, piano solo and orchestra</i>	Canadian Music Centre  musiccentre.ca	14'	Rock group: 2 El. Gtr (Acoustic Gtr), El. Pno (El. Harpichord), El. Bass Gtr, Drums, solo Pno, Picc, Bcl, Cbsn, 4.3.3.1, 3 or 4 Perc, strings.	1971
Gervais, Aaron  (b. 1980)  Canada	<i>Love in the time of connectivity</i>	Canadian Music Centre  musiccentre.ca	3'15"	2 Fl (Picc), Bb Cl, A. Sax, B. Sax, Horn in F, Tpt in C, 2 Tbn, Tuba, 2 Sopranos, Mezzo- Soprano, El. Gtr, El. Bass, Pno, Drum kit.	2009
Gervais, Aaron  (b. 1980)  Canada	<i>Elegy of others: for chamber wind ensemble</i>	Canadian Music Centre  musiccentre.ca	12'	2 Fl, Bb Cl, A. Sax, B. Sax, Horn, C Tpt, 2 Tbn, Tuba, El. Gtr, El. Bass, Pno, Drum kit.	2009
Ghezzo, Dinu  (b. 1941– 2011)  Romania	<i>Pstrom</i>	Subito Music  subitomusic.com	Not avail- able	Fl, Cl, El. Gtr, Pno	Not avail- able

Gibson, Richard  (b. 1953)  Canada	<i>Glistenin' whistle</i>	Canadian Music Centre  musiccentre.ca	7'16"	Chorus, Brass quintet, Fl, El. Gtr, Bass Gtr, Pno, Synthesizer, Vibraphone and Perc.	1977
Gibson, Richard  (b. 1953)  Canada	<i>Jazz poems for some friends of mine</i>	Canadian Music Centre  musiccentre.ca	23'25" "	Tpt, El. Gtr, Bass Gtr, Pno and Synthesizers, Prepared Tape.	1981
Giuffre, Gaetano  Dates and nationality not available refer to Subito Music website.	<i>Casida del Llanto</i>	Subito Music  subitomusic.com	Not available	Vln, 2 Horns, El. Gtr, Perc.	Not available
Gnattali, Radamés  (1906–1988)  Brasil	<i>Brasiliiana No. 9</i>	radamesgnattali.com.br	Not available	El. Gtr, Bass, Drum kit, Accordion, Cello, 2 Pno.	1955
Gnattali, Radamés  (1906–1988)  Brasil	<i>Sonatina Coreográfica</i>	radamesgnattali.com.br	14'16" "	El gtr, Pno, Accordion, Db Bass, Drum kit.	1956



Gnattali, Radamés  (1906– 1988)  Brasil	<i>Suite Popular Brasileira</i>	radamesgnattali.com.br	22'35 ”	El. Gtr, Pno.	1953
Globokar, Vinko  (B. 1934)  France  (lives in Berlin)	<i>Werkbeschreib ungen</i>	Ricordi München  ricordi.de	Not avail- able	7 instruments (El. Gtr.)	Not avail- able
Godfried- Willem, Raes  (b. 1952)  Belgium	<i>Dynamo</i>	Netherlands New Music Centre  matrix-new-music.be/en	Not avail- able	El. Gtr	1998
Godin, Scott Edward  (b. 1970)  Canada	<i>Guan</i>	Canadian Music Centre  musiccentre.ca	Not avail- able	Vla, El. Gtr, Keyboard, Perc.	2007
Gotham, Nic  (b. 1959)  UK  Lives in Canada	<i>Hermit Hand</i>	Latvian Music Information Centre  lmic.lv	11’	2 S. Sax, Picc, A. Sax, Cl, Bsn, Tpt, Tbn, Vln, Vlc, Db-Bass, E. Bass Gtr, E. Gtr, Pno, Perc	1992

Gowers, Patrick (b. 1936) UK	<i>Rhapsody: For Guitar, Electric Guitars and Electric Organ</i>	CBS Records S 73350	Not avail- able	El. Gtr, Acoustic Gtr, El. Organ.	1974
Greenbau m, Stuart (b. 1966) Australia	<i>Electric Confession</i>	Australian Music Centre australianmusiccentre.co m.au	9'	El. Gtr, Tape	2000
Guarniero, Adriano (b. 1944) Lives in Switzerlan d	<i>“infinite Risonanze...inqu iete..”</i>	Casa Ricordi ricordi.it	20'	Acoustic Gtr with amplification, Live Electronics.	1992
Hahn, David (b. 1956) USA	<i>The Mask of Sanity</i>	American Music Centre amc.net	4'15' '	Prerecorded sound created on El. Gtr and Baritone Gtr.	2006
Hahn, David (b. 1956) USA	<i>On The Border With The War Zone</i>	American Music Centre amc.net	3'24	Chamber jazz group, El. Gtr, Solo Voice.	1995
Hahn, David (b. 1956) USA	<i>Like you thought</i>	American Music Centre amc.net	2'53' '	Chamber jazz group, El Gtr.	1995

Hahn, David  (b. 1956)  USA	<i>Dona Nobis Pacem</i>	American Music Centre  amc.net	2'38' '	Chamber Jazz group, El. Gtr.	1995
Hahn, David  (b. 1956)  USA	<i>Children in Cells</i>	American Music Centre  amc.net	3'40' '	1 El. Gtr, 1 Mezzo-Soprano	1995
Hahn, David  (b. 1956)  USA	<i>Bosna</i>	American Music Centre  amc.net	4'13' '	1 A. Sax, 1 Dbl Bass, 1 El. Gtr, 1 Mezzo- Soprano.	1996
Hahn, David  (b. 1956)  USA	<i>Blood will have Blood</i>	American Music Centre  amc.net	4: 10' 60''	1 Bcl, 1 A. Sax, 1 El. Gtr, 1 Mezzo- Soprano.	1996
Hahn, David  (b. 1956)  USA	<i>'Tis of Thee</i>	American Music Centre  amc.net	3'24' '	1 A. Sax, 1 El. Gtr.	1995
Hambrueus , Bengt  (1928– 2000)  Sweden	<i>Segnali per strumenti a corda</i>	Swedish Music Information centre  mic.stim.se	12'	El. Gtr, Harp, harpsichord, Vln, Vla, Dl Bass – amplification.	1959 – 1960

Hämeenniemi, Eero (b. 1951) Finland	<i>From a Book I Haven't Read</i>	Finnish Music Information Centre fimic.fi	60'	Strings, Pno, El. Gtr, El. Bass, Drums, Perc.	1993
Hämeenniemi, Eero (b. 1951) Finland	<i>From Navarasa</i>	Finnish Music Information Centre fimic.fi	35'	Strings, Pno, El. Gtr, El. Bass, Drums, Perc.	1993
Hamilton, Andrew (b. 1977) Ireland	<i>May</i>	Contemporary Music Centre Ireland cmc.ie	2'	Voices, A. Sax T. Sax, Tbn, Vib El. Gtr, Pno.	2008
Hamilton, Andrew (b. 1977) Ireland	<i>Frank O'Hara on the Phone Piece</i>	Contemporary Music Centre Ireland cmc.ie	12'	Picc, S. Sax, A. Sax, B. Cl, Tpt, 2 Horn, 2 Tbn, Tuba, Perc, Pno El. Gtr, Bass Gtr.	2003
Hamilton, Andrew (b. 1977) Ireland	<i>Above Under Now</i>	Contemporary Music Centre Ireland cmc.ie	3'	2 S-solo, Mez-solo, Picc S. Sax, A. Sax, B. Cl, Tpt, 2 Horn, 2 Tbn, Tuba, Perc, Pno, El. Gtr, B. Gtr.	2002
Hamilton, Andrew (b. 1977) Ireland	<i>Paint Things Out</i>	Contemporary Music Centre Ireland cmc.ie	5'	S-solo, Org El. Gtr, Db.	2000

Hayes, Gary  (b. 1948)  Canada	<i>Preludes and Dances</i>	Canadian Music Centre  musiccentre.ca	18'	El. Gtr, Mandolin	1976
Hegaard, Lars  (b. 1950)  Denmark	<i>Labyrinthus</i>	Edition Samfundet  samfundet.dk	10'	El. Gtr.	1991
Hegaard, Lars  (b. 1950)  Denmark	<i>In Memoriam of Jimi Hendrix</i>	Edition Samfundet  samfundet.dk	10'	El. Gtr.	1987 -88
Henze, Hans Werner  (b. 1926)  Germany	<i>Das Ende einer Welt  (stage work)</i>	Schott  Schott-music.com	40'	El. Gtr, Classical Gtr, Bass Gtr, solo voices, chorus, Recorder, Fl Ocarina, Bsn, jazz Tpt, jazz Tbn, Perc, Harp, Pno, Harmonium, Accordion, Mandolin, Strings, Tape.	1953  Rev. 1993
Henze, Hans Werner  (b. 1926)  Germany	Versuche über Schweine	Schott  Schott-music.com	20	Baritone, El. Gtr, Orchestra.	1968

Henze, Hans Werner  (b. 1926)  Germany	<i>Das Floß der Medusa</i>	Schott  Schott-music.com	70'	Sop, Bar, Chorus, Speaker, Boy Sop, Alto, extended Orcherstra, El. Gtr.	1968 -90
Heyn, Volker  (b. 1938)  Germany	<i>Vermutungen über ein rotes Haus</i>	Red House Editions  redhouse.com.au	6'	El. Gtr, Amplified Vln.	
Hindson Matthew/  (b. 1968)  Australia  William Barton  (b. 1981)  Australia	<i>Kalkadungu</i>	Faber Music  fabermusic.com	24'	Picc, Fl, Ob, Cor Agl, Bb Cl (also doubling E flat), BCl (also doubling B flat), Bsn, Cbsn, 4 Hns, 2 Tpt in C, 2 Tbns, Bass Tbn, Tuba, Timp, Perc (1 player), Solo Voice/El. Gtr/Didjeridu, Strings.	2007
Hiscott, James  (b. 1948)  Canada	<i>Exocet: for electric guitar and electric piano</i>	Canadian Music Centre  musiccentre.ca	Not avail- able	El. Gtr, El. Piano.	1983

Hodkinson , Sydney  (b. 1934)  Canada	<i>A mural for symphony orchestra</i>	Canadian Music Centre  musiccentre.ca	20'	3 Picc, 2 Eng Hn 2 A. Sax, B. Cl 2 Cbsn , 4331, Timp, Perc (3), El. Gtr, Harp, Pno (Celesta), Strings (min. 8- 8-6-6-5).	1968
Holland, James Nathaniel  Dates not available  USA	<i>As You Like It: Incidental Music</i>	American Music Centre  amc.net	2:17' 10''	Lead Vocal, Three Back-up Vocals (possibly interchanging with lead on each song) (Triangle), 2 Synthesizers, El. Gtr/Acoustic Gtr, El. Bass, Drum Set (Bass Drum, High Hat, Snare, Toms [opt.], Crash Cymbal), General Perc (African Djembe, Bongos, Tambourine)	2001
Horowitz, Steve  Nationality and dates not available	<i>5 Pieces for rock Band</i>	American Music Centre  amc.net	9'	1 Cl, 1 S. Sax, 1 Drum Set, 1 Pno, 1 El. Bass, 1 El. Guitar.	2006

Horowitz, Steve  Nationality and dates not available	<i>Triple Double</i>	American Music Centre  amc.net	16'	1 A. Sax, 1 Perc (General), 1 Drum Set, 1 Electric/Electro nic Keyboard, 1 Dble bass, 1 El. Gtr.	1993
Horowitz, Steve  Nationality and dates not available	<i>Invasion from the Chicken Planet</i>	American Music Centre  amc.net	20'	1 Tbn, 1 Perc (General), 1 Drum Set, 2 Pno, 1 El. Bass, 1 El. Gtr, 2 Soprano.	1991
Horwood, Michael S.  (b. 1947)  USA	<i>Facets: for narrator &amp; chamber ensemble</i>	Canadian Music Centre  musiccentre.ca	Not avail- able	Narrator, Sax, Tpt, Horn, Tbn, Pno, Accordion, El. Bass, 2 El. Gtr, 3 Perc, Slide Projector and Screen.	1974
Hough, Matthew  (b. 1981)  USA	<i>Since We Don't Understand</i>	American Music Centre  amc.net	3'	El. Gtr, Pno, Chamber jazz ensemble.	2007
Hough, Matthew  (b. 1981)  USA	<i>Woodworking</i>	American Music Centre  amc.net	3'	2 T. Sax, 2 Drum Set, 2 El. Gtr.	2005
Hough, Matthew  (b. 1981)  USA	<i>The First Thing You Need to Do</i>	American Music Centre  amc.net	8'	2 El. Gtr, 2 Baritone.	2005



Houghton, Phillip  (b. 1954)  Australia	<i>Dolphin</i>	Improvisation  Recording only  Philliphoughton.com.au	14'20 ”	El. Gtr, Pno frame, Bell.	1981
Houghton, Phillip  (b. 1954)  Australia	<i>Big Tables</i>	Improvisation  Recording only  Philliphoughton.com.au	12'43 ”	2 El. Gtr, Pno frame, Backwards Tape (with tape bleed), Distortion and Static.	1981
Houghton, Phillip  (b. 1954)  Australia	<i>Rhinocerosus</i>  ( <i>Ballet Music</i> )	Improvisation  Recording only  Philliphoughton.com.au	22'15 ”	El. Gtr, Tom Drum, Cymbal.	1977
Howell, Mark  (b. 1952)  USA	<i>Cement.</i>	Frog Peak Music  frogpeak.org	Not avail- able	El. Gtr	Not avail- able
Howell, Mark  (b. 1952)  USA	<i>Like Woods</i>  <i>Around</i>	Frog Peak Music  frogpeak.org	Not avail- able	El. Gtr Quartet	Not avail- able
Howell, Mark  (b. 1952)  USA	<i>The History of</i> <i>Magic – Seven</i> <i>sections for</i> <i>electric guitar</i>	Frog Peak Music  frogpeak.org	Not avail- able	El. Gtr	Not avail- able

Howell, Mark  (b. 1952)  USA	<i>The Quakening</i>	Frog Peak Music frogpeak.org	Not avail- able	El. Gtr	Not avail- able
Hyvärinen, Asko Finland  (b. 1963)	<i>Bläsnäsviken</i>	Finnish Music Information Centre  fimic.fi	22'	Tape, 3 Violins, Electric Guitar, Dancers.	2005
Hyvärinen, Asko  (b. 1963) Finland	<i>Klangvåg</i>	Finnish Music Information Centre  fimic.fi	8'	2 Flutes, Trumpet, Electric Guitar, Percussion, Piano, Violin.	2004
Irvine, Brian Ireland  (b. 1965)  Ireland	<i>A nice piece of fish...A few old mugs...And a big blue duffle coat</i>	Contemporary Music Centre Ireland  cmc.ie	12'	Childrens choir, Vln-solo, Vlc- solo, Fl, Cl, B. Cl, 2 S. Sax, Tpt, Tbn, Perc, El. Gtr, El. Bass, Accordion, 3333 4331, Timp, 5 Perc, Harp, Pno, Strings.	2002
Irvine, Brian Ireland  (b. 1965)  Ireland	<i>Interrupting Cutler</i>	Contemporary Music Centre Ireland  cmc.ie	12'	Sax-solo [improvising], Fl+picc, S. Sax, A. Sax, T. Sax, B. Cl, Tpt, Tbn, Vln, Vlc, El. Gtr, El. Bass, Perc, sampler.	2000

Irvine, Brian Ireland  (b. 1965)  Ireland	<i>Thug!</i>	Contemporary Music Centre Ireland  cmc.ie	10'	Sax-solo [improvising], Fl, Picc, S. Sax, Cl, A. Sax, cl, T. Sax, Cl, Tpt, 2 Tbn, Vln, Vlc, Pno, El. Gtr, El. Bass, Perc.	1999
Irvine, Brian  (b. 1965)  Ireland	<i>Bersudsky's Machines</i>	Contemporary Music Centre Ireland  cmc.ie	45'	Fl, Picc, S. Sax, A. Sax, T. Sax, Tpt, 2 Tbn, Vln, Vlc, Perc, Kbd, El. Gtr, El. Bass.	1998
Irvine, Brian  (b. 1965)  Ireland	<i>First Song for Jamie</i>	Contemporary Music Centre Ireland  cmc.ie	5'	Fl, Picc, Harmonica, S. Sax, El. Gtr, Vln, Vlc [all amplified]	1996
Irvine, Brian  (b. 1965)  Ireland	<i>280 Bells</i>	Contemporary Music Centre Ireland  cmc.ie	40'	Fl, A. Fl, Cl, B. Cl, T. Sax, A. Sax, Bn, 2 Tpt, Tbn, Perc, Pno, Vln, Vlc, Db [amplified], El. Gtr.	1994
Irvine, Brian  (b. 1965)  Ireland	<i>Black Man Dance</i>	Contemporary Music Centre Ireland  cmc.ie	10'	SATB [div., opt.], Fl, Cl, 2 A. Sax, T. Sax, 3 Tpt, 2 Tbn, El. Gtr, El. Bass, Perc.	1990

Isadora, Alison  (b. 1962) New Zealand	<i>For Wiek</i>	New Zealand Music Centre  sounz.org.nz	8'	El. Gtr (with e- bow and octiviser)	1994
Jalava, Lasse  (b. 1951) Finland	<i>Symphony No. 4 Op. 25 'Reggae'</i>	Finnish Music Information Centre  fimic.fi	30'	3.3.3.3./4.3.31./ 12/0, El. Gtr, El. Bass, Drums, Cemb (Synth ad lib.), Pno, Melodica, Str, Flugelhorn solo, Alto solo	1995
Jarvlepp, Jan  (b. 1953) Canada	<i>Moonscape</i>	Canadian Music Centre  musiccentre.ca	9'	El. Gtr, Voice exists in several form for other melodic instruments and El. Gtr.	1993
Jarvlepp, Jan  (b. 1953) Canada	<i>Music from Mars</i>	Canadian Music Centre  musiccentre.ca	8'15"	El. Gtr, Flute.	1993
Jarvlepp, Jan  (b. 1953) Canada	<i>Street Scene</i>	Canadian Music Centre  musiccentre.ca	7'	El. Gtr, Vla.	2000

Jarvlepp, Jan (b. 1953) Canada	<i>Tarantella</i>	Canadian Music Centre musiccentre.ca	Not avail- able	El. Gtr, Piccolo.	1996
Johnson, Scott (b. 1952) USA		<i>For a comprehensive list of Scott Johnson compositions featuring electric guitar see the website:  Sheerpluck.de</i>			
Johnston, Fergus (b. 1959) Ireland	<i>Episodes I</i>	Contemporary Music Centre Ireland  cmc.ie	6'	Fl, Tbn, El. Gtr, Perc.	1986
Jong, Christian de (b. 1960) Netherland s		<i>For a comprehensive list of Christian de Jong compositions featuring electric guitar see the website:  Sheerpluck.de</i>			
Kagel, Mauricio  Argentina  (1931– 2008)	<i>Sonant</i>	Edition Peters  edition-peters.de	7'– 22'	El. Gtr, Harp, DI Bass, Perc.	1960

Kagel, Mauricio  (1931– 2008)  Argentina	<i>Heterophonie</i>	Edition Peters  edition-peters.de	18’– 40’	El. Gtr, Orchestra, Harp, Mandolin, Cel, Org, Harpsicord.	1959 – 1961
Kagel, Mauricio  (1931– 2008)  Argentina	<i>Tremens</i>	Edition Peters  edition-peters.de	45’	El. Gtr, Hammond Org, Bass Gtr, Db, Perc, Mono Tape Recorder, Stereo Tape Recorder, Microphone, Slide Projector, Actors.	1963 – 1965
Kagel, Mauricio  (1931– 2008)  Argentina	<i>Unter Strom</i>	Edition Peters  edition-peters.de	22’	El. Gtr, Acoustic Guitar, Bass Gtr, Coffee Grinder, Walkie-Talkie.	1969
Kats- Chernin, Elena  (1931– 2008)  Uzbekistan  Lives in Australia	<i>ProMotion</i>	Australian Music Centre  australianmusiccentre.co m.au	11’	Cl, Perc, El. Gtr, Pno, Vlc, Dbl bass.	1995

Kats-Chernin, Elena (b. 1957) Uzbekistan Lives in Australia	<i>Village Idiot</i>	Australian Music Centre australianmusiccentre.com.au Boosey & Hawkes	12'	Vln, Vla, Cl, Db Bsn, El. Gtr, 2 El. Keyboards, Perc.	Not available
Kaumann, Tõnis (b. 1971) Estonia	Flute Concerto	Estonian Music Centre emic.ee/?lang=eng	Not available	Solo Fl, Jazz group (double Bass and El. Gtr), Five Perc and Electronics.	2007
Keller, Max. E. (b. 1947) Switzerland	<i>Les pompiers (souvenir de Berlin)</i>	Schweitzer Musikedition musicedition.ch	6'	4 Tbn, Pno, El. Gtr, Electronic Sound Expansion	1996
Kennedy, Vincent (b. 1962) Ireland	<i>The Wings of Change</i>	Contemporary Music Centre Ireland cmc.ie	35'	2 Voices, 2 Fl, 2 Rec, 2 Cl 2, A. Sax, T. Sax, 3 Tpt, Horn, 2 Tbn, Euph, Tuba, Timp, 3 Perc, Pno, Synth, Hrp, El. Gtr, Str.	2007

Kerko, Harri (b. 1968) Finland	<i>Zen</i>	Finnish Music Information Centre fimic.fi	6'	El. Gtr, Accordion and Piano.	1994
Klit, Lars (b. 1965) Denmark	<i>The Last Virtuoso</i> <i>Stage work</i>	New Music From Nordic Countries White, David John., Christensen, Jean	Not available		1995
Klit, Lars (b. 1965) Denmark	<i>Memorium for Jimi Hendrix II</i>	New Music From Nordic Countries White, David John., Christensen, Jean	Not available	El. Gtr, and Ensemble	1995
Kohlenberg, Oliver (b. 1957) Germany	<i>Hildegard von Bingen – Kohlenberg: O vos felices Op. 66</i>	Finnish Music Information Centre fimic.fi	12'45"	Solo A. Sax, 4 Perc, El. Gtr.	2005
Kondo, Jo (b. 1947) Japan	<i>Four Short Poems of Louis Zukofsky</i>	University of York Music Press uynp.cp.uk	Not available	Mezzo Sop, A. Fl, Perc, El. Gtr.	Not available



Kondo, Jo (b. 1947) Japan	<i>I sent these late</i>	University of York Music Press uynp.cp.uk	2'	M. Sop, A. Fl, Vibraphone, El. Gtr.	1985
Kõrvits, Tõnu (b. 1969) Estonia	<i>The Chamber of Wind</i>	Estonian Music Centre emic.ee/?lang=eng	10'	El. Gtr, Bass Flute.	2004
Koskinen, Jukka (b. 1965) Helsinki	<i>Kaski</i>	Finnish Music Information Centre fimic.fi	Not avail- able	2 El. Gtr.	2002
Kulently, Hanna  Dates not available  Poland	<i>Postcard from Europe</i>	Netherlands Music Centre www.muziekcentrumned erland.nl/en/	6'	Fl, Cl, S. Sax, A. Sax, 2 Horn, 2 Tbn, Tuba, Perc, El. Gtr, El. Bass Pno.	2004
Kucharzyk , Henry (b. 1953) Canada	<i>Chrome Chaser</i>	Canadian Music Centre musiccentre.ca	Not avail- able	3 Sax, Cl (B. Cl), Bsn, Tpt, Tbn, Drum kit, Perc, Pno, El. Gtr, Vln, Vlc and Dbl Bass.	1993

Kuusisto, Iikka (b. 1933) Finland	<i>Kira! Kira!</i>	Finnish Music Information Centre  fimic.fi	90'	Children's musical in two acts 10 major and minor roles; Keyboard, El. Bass, El. Gtr, Perc.	1972
Kyriakides, Yannis (b. 1969) Cyprus Lives in UK	Tinkling, or, Killing time in an airport lounge (and being arrested)	Netherlands Music Centre  www.muziekcentrumnederland.nl/en/	16'	Fl (Picc), Cl, Tbn, Perc, El. Gtr, Vln, Vlc, Pno solo.	1999 – 2006
Lachmann, Helmut (b. 1935) Germany	<i>Air</i>	Breitkopf & Härtel  breitkopf.com	20'	El. Gtr, El. Org, Perc, Harp, Strings, Wind.	1968 – 1969  Rev. 1994
Lafave, Kenneth Dates not available USA	<i>Gateways:</i> Concerto for Electric Guitar, Singers and Symphonic Band	Self Published  lafaveonthearts.com/	Not available	Concerto for El. Gtr, Singers and Symphonic Band.	2005

Lang, David  (b. 1957)  USA	<i>Warmth</i>	G. Schirmer, Inc. and  associated Music  Publishers, Inc.  musicsalesclassical.com  <i>For a comprehensive list of David Lang compositions featuring electric guitar see the website:  Sheerpluck.de</i>	7'	2 El. Gtr.	2006
Lanman, Anthony  (b. 1973)  USA	<i>Synaesthesiac</i>	American Music Centre  amc.net	10'	2 Fl, 2 Ob, 2 Cl, 2 Bsn, 4 Horn in F, 2 Tpt, 3 Tbn, 1 Tuba, 3 Perc (General), 1 Pno, 1 Strings (General), 1 Harp, 1 El. Gtr soloist(s).	2008
Lanman, Anthony  (b. 1973)  USA	<i>Eleven</i>	American Music Centre  amc.net	15'	1 Fl, 1 Cl, 1 Flugelhorn, 2 Perc (General), 1 Pno, 1 Vln, 1 Vla, 1 Cello, 1 Dbl Bass, 1 El Gtr.	2001
Lanza, Alcides  (b. 1929)  Canada	<i>Módulos IV (1986-I):</i> for guitar, electronic sounds and electronic extensions	Canadian Music Centre  musiccentre.ca	24'	For Classical or El. Gtr with MIDI Interface.	1986

Learo, Norman  (b. 1951)  Canada	<i>Jazz Atmospheres</i>	Canadian Music Centre  musiccentre.ca	11'50 "	For El. Gtr with Electronic (MIDI) Perc and Bass Gtr.	Not avail- able
Learo, Norman  (b. 1951)  Canada	<i>Places in the Sun</i>	Canadian Music Centre  musiccentre.ca	4'43"	El gtr.	Not avail- able
Ledroit, Christien  (b. 1975)  Canada	For Chamber Orchestra with Electric Guitar and Digital Audio	Canadian Music Centre  musiccentre.ca	16'	For chamber orchestra with digital audio and El. Gtr	2002
Ledroit, Christien  (b. 1975)  Canada	<i>Streamlined</i>	Canadian Music Centre  musiccentre.ca	22'07 "	For El. Gtr, tape and orchestra.	2004
Lentz, Georges  (b. 1965)  Luxembou rg lives in Australia	<i>'Ingwe' from 'Mysterium' ("Caeli enarrant..." VII) for solo electric guitar (2003- 2009)</i>	Universal Edition  universaledition.com	60'	Solo El. Gtr.	2003 – 2009
Lidholm, Ingvar  (b. 1921)  Sweden	<i>Motes Colores</i>	Swedish Music Information Centre  Mic.stim.se	12'30 "	El. Gtr, Orchestra.	1960

Lillmeyer, Haral  Dates and nationality not available	<i>Go Guitars</i>	Deutschen Musikinformationszentrum  miz.org/	Not available	5 El. Gtr.	1997
Lim, Liza (b. 1966)  Australia	<i>The Oresteia</i>	Ricordi  ricordi.co.uk	75'	Soprano, 2 Mezzo Soprano, Counter Tenor, Tenor, Baritone (Mezzo Soprano 2 also plays stage 'Cello) Dancer (also vocalising) Fl/Picc, Ob/Cor Ang, Cl/Bass Cl, Tpt/Picc Tpt, Tbn. Turkish Baglama Saz (played by Mandolinist) El. Gtr, Perc, Vla/Vla d'amore, Vc, D bass	1991 – 1993
Lim, Liza (b. 1966)  Australia	<i>Garden of Earthly Desire</i>	Ricordi  ricordi.co.uk	26'	Fl, Picc, Ob, Cl, Mand, El. Gtr, Harp, Perc, Vln, Vla, Vc, D Bass	1988 – 1989

Lindberg, Magnus  (b. 1958)  Finland	<i>Sculpture</i>	Finnish Music Information Centre  fimic.fi	10'	2 Fl, 1 Picc, 2 Ob, Cor Anglais, Cl, Cl in Eb, Bass Cl, Bsn, Double Bsn, A. Sax, 4 Horns, 3 Tpt, 3 Tbns, Perc (3 players), Pno, El. Pno (doubling Celesta), El. Gtr, Strings: 24- 10-8-6.	1981
Lindwall, Christer  (b. 1950)  Sweden	<i>Earth-bow</i>	Swedish Music Information Centre  mic.se  (Publisher SMIC)	10'	A. Sax, Tbn, El. Gtr, Perc.	1996
Lindwall, Christer  (b. 1950)  Sweden	<i>Wenn Sie so, dann ich so, und Pferd fliegt</i>	Swedish Music Information Centre  mic.se  (Publisher SMIC)	17'	Tpt, El. Gtr, Pno, Perc, Amplified Dbl Bass.	2000
Linkola, Jukka  (b. 1955)  Finland	<i>Hullu Hutikuu</i>	Finnish Music Information Centre  fimic.fi	55'	Fl, Cl, A. Sax, T. Sax, Tpt, Tbn, Perc, Drums, El. Gtr, Synthesizer, Pno, Strings.	1999
Linkola, Jukka  (b. 1955)  Finland	<i>Juhlafanfaari</i>	Finnish Music Information Centre  fimic.fi	1'20"	A. Sax, T. Sax, B. Sax, 2 Tpt, 2 Tbn, Pno, Synthesizer, El. Gtr, El. Bass, Vibes, Drums.	2002

Lizée, Nicole  (b. 1973)  Canada	<i>2600 Dollar Man</i>	Canadian Music Centre  musiccentre.ca	8'30"	El. Gtr, Vln, Dbl Bass, Perc, Keyboard/Samp ler and Atari 2600 Game Console.	2004
Lizée, Nicole  Canada  (b. 1973)	<i>Modern hearts: for electric guitar solo</i>	Canadian Music Centre  musiccentre.ca	Not avail- able	El. Gtr.	2008
Lyon, Eric  Dates and nationality not available.	<i>Greaseball</i>	Frog Peak Music  frogpeak.org	Not avail- able	El. Gtr.	Not avail- able
Lyons, Frank  (b. 1964)  Ireland	<i>Spiked</i>	Contemporary Music Centre Ireland  cmc.ie	6'	Ob, El. Gtr, Pno, Synth, Vln, Vlc [all amplified].	1998
Lynch, Graham  Dates not available  UK	Tango Quintet for Violin, Bandoneon, Electric Guitar and Double Bass	Tonos Music  tonosmusic.com	Not avail- able	Vln, Bandoneon, El. Gtr, Pno, Dbl bass.	Not avail- able
Lynch, Graham  Dates not available  UK	<i>Euredice Sings</i>	Tonos Music  tonosmusic.com	Not avail- able	Vln, Bandoneon, El. Gtr, Pno, Double Bass.	Not avail- able

Lynch, Graham  Dates not available  UK	<i>Spanish Cafe</i>	Tonos Music  tonosmusic.com	Not avail- able	Vln, Bandoneon, El. Gtr, Pno, Dbl Bass.	Not avail- able
Lutyens, Elizabeth  (1906– 1983)  UK	<i>Go, Said the Bird Op. 105</i>	University of York Music Press  uynp.cp.uk	12’	El. Gtr, String Quartet	1975
Mackey, Steve  (b. 1956)  USA	<i>Four Iconoclastic Episodes</i>	Boosey & Hawkes  Boosey.com	21’	Vln, El. Gtr, String Orchestra.	2009
Mackey, Steve  (b. 1956)  USA	<i>Deal</i>	Boosey & Hawkes  Boosey.com	20’	El. Gtr, Solo Drum kit (optional) and Orchestra.	1996
Mackey, Steve  (b. 1956)  USA	<i>Physical Property</i>	American Music Centre  amc.net  Boosey & Hawkes  Boosey.com	16’	El. Gtr and String Quartet.	1992
Mackey, Steve  (b. 1956)  USA	<i>Tuck and Roll</i>	Boosey & Hawkes  Boosey.com	32’	El. Gtr and Orchestra.	2000



Macmillan, Scott  (b. 1955)  Canada	<i>The Three That Seek My Heart</i>	Canadian Music Centre  musiccentre.ca	12'	SATB chorus, 2 Pno and El. Gtr.	1994
Maderna, Bruno  (1920– 1973)  Italy	Studi per 'Processo' di <i>Kafka</i>	Edizioni Suvini Zerboni  esz.it	20'	El. Gtr, Soprano, Reciter, Sax, Perc, Cel, 2 Harp, Pno, Strings.	1950
Maguire, Michael C.  Dates and nationality not available	<i>Got That Crazy, Latin/Metal Feelin'</i>  CD 1171	Canadian Music Centre  musiccentre.ca	Not avail- able	El. Gtr and Computer.	2003 – 2006
Malfatti, Radu  (b. 1943)  Austria	<i>Insinuations</i>	Edition Wandelweiser  wandelweiser.de	50'	El. Gtr	2003
Martland, Steve  (b. 1959)  UK	<i>Lotta Continua</i>	British Music Information Centre  bmic.co.uk	20'	Orchestra and Jazz band. Feat El. Gtr.	1981
Manca, Gabriele  Dates not available  Italy	<i>Acromatopsia</i>	Casa Ricordi  ricordi.it	Not avail- able	Vla, Vln. MIDI Gtr, El. Gtr.	1996

Mayo, Christopher (b. 1980) Canada	<i>In Those Apple Trees</i> : for three electric guitars and amplified dutar (or four electric guitars)	Canadian Music Centre musiccentre.ca	7'	3 El. Gtr, 1 Dutar (or El. Gtr)	2005
McDougall, Ian (b. 1938) Canada	<i>Three Canadian Folk Songs</i>	Canadian Music Centre musiccentre.ca	15'	For SATB chorus with String Orchestra and/or El. Gtr.	1989
McLachlan, John (b. 1964) Ireland	<i>Wonder</i>	Contemporary Music Centre Ireland cmc.ie	13'	Cl, Glock, Org El. Gtr, Pno, Vln, Db.	2008
McLeod, Jenny (b. 1941) New Zealand	<i>He Honore, He Kororia</i> ( <i>Honour and Glory to God</i> )	New Zealand Music Centre sounz.org.nz	90'	Orchestra with El. Gtr, Bass Guitar, SATB Choir.	1996
Meirering, Chiel (b. 1954) The Netherlands	<i>Where's John M.?</i>  ( <i>Part 1 +2</i> )	Refer to the composer's website  hubiware.nl  <i>For a comprehensive list of Chiel Meirering's compositions featuring electric guitar see the website:</i>  <i>Sheerpluck.de</i>	14'	El. Gtr, Tape.	2010

Moncey-Conegliano, Peter de (b. 1948) UK	Electric Guitar Improvisation (appears to be an improvisation that was recorded and released on CD, no score is available. The track can be found on the websites 'Yellow' sound archive.)	Scottish Music Centre scottishmusic centre.com	10'	El Gtr.	2000
Murail, Tristan (b. 1947) France	<i>Contes Cruels</i>	Editions Lemoine Publishers www.henry-lemoine.com	20'	2 El. Gtr, Orch.	2007
Murail, Tristan (b. 1947) France	<i>Vampyr!</i>	Editions Lemoine Publishers www.henry-lemoine.com	9'	El. Gtr.	1984
Murail, Tristan (b. 1947) France	<i>Randon Access Memory</i>	Editions Lemoine Publishers www.henry-lemoine.com	70'	El. Gtr (2), Perc, Computer.	1984 – 1987
Murail, Tristan (b. 1947) France	<i>Les Nuages de Magellan</i>	tristanmurail.com	13'	El. Gtr, Ondes Martenot (2), Perc.	1973

Murail, Tristan  (b. 1947)  France	<i>Ligne de non- retour</i>	Editions Salabert  salabert.fr	13'	El. Gtr, Piccolo, Cl, Harp, Perc, Vla, Db.	1971
Murphy, Greg  (b. 1963)  Ireland	<i>A Dog in the Hand</i>	Contemporary Music Centre Ireland  cmc.ie	130'	S-solo, T-solo, Bar-solo, 1011 1110, Perc, Pno, Sax, El. Gtr, 3 Vln, 2 Vlc, Bass. Gtr, Db.	1976
Muyazumi, Toshiro  (1929– 1997)  Japan	<i>Ectoplasme</i>	Edition Peters  edition-peters.de	6'	El. Gtr, Perc, Pno, Claviolin, Celesta, Harp, Strings.	1954
Nagorcka, Ron  (b. 1948)  Australia	<i>Colluricincla Harmonica</i>	Frog Peak Music  frogpeak.org	Not avail- able	Fretless El. Gtr and 2 MIDI Keyboards (5 octaves each) controlling “Vsampler.”	Not avail- able
Nagorcka, Ron  (b. 1948)  Australia	<i>Just Dance</i>	Frog Peak Music  frogpeak.org	Not avail- able	For the National Steel Gtr specially tuned in just intonation to play the music of Lou Harrison	Not avail- able

Naumann, Seigfried  (1919– 2001)  Sweden	<i>4 Favole di Fedro</i>	Swedish Music Infomation Centre  mic.stim.se	14'	El. Gtr, SATB, Chorus, El. Mandolin, Glass Harmonica, Drum kit, Vln, Db, Harp, Vibraphone, Tape.	1960
Newland, Paul  (b. 1966)  UK	<i>Frau (Velocity 2)</i>	British Music Information Centre  bmic.co.uk	12'	Tape of El. Gtr sounds for contemporary dance	1998
Neuwirth, Olga  (b. 1968)  Austria		<i>For a comprehensive list of Olga Neuwirth's compositions featuring electric guitar see the website:  Sheerpluck.de</i>			
Nilsson, Bo  (b. 1937)  Sweden	<i>Ein Irrender Sohn</i>	Universal edition  universaledition.com	8'- 10'	El. Gtr, El. Mandolin, Flute, Perc, Vln, Db, Harp, Celesta.	1959
Nilsson, Bo  (b. 1937)  Sweden	<i>Mädchentotenlie der</i>	Universal edition  universaledition.com	8'	El. Gtr, El. Mandolin, Flute, Perc, Vln, Cello Db, Harp, Celesta.	1957 – 1958
Nilsson, Bo  (b. 1937)  Sweden	<i>Und die Zeiger seiner Augen Wurden langsam Zurückgedreht</i>	Universal edition  universaledition.com	12'	El. Gtr, Sop, Alto, womens chorus, Orchestra, Perc.	1959

Nilsson, Bo  (b. 1937)  Sweden	<i>Versuchengen</i>	Universal edition  universaledition.com	5'	El. Gtr, Orchestra, Oerc, loudspeaker.	1958
Nuorvala, Juhani  (b. 1961)  Finland	<i>Flash Flash</i>	Finnish Music Information Centre  fimic.fi	Not avail- able	Opera in two acts and intermission 5 Amplified Voices: Soprano, Alto, Tenor, Baritone and Bass, Tap Dancer, 2 Keyboard Players, Perc, El. Gtr, amplified Vla, amplified Cl, sound tracks, live sound processing	2005
Nuorvala, Juhani  (b. 1961)  Finland	<i>Kellarisinfonia</i>  (Garage Symphony)	Finnish Music Information Centre  fimic.fi	15'	Fl (picc), Cl, A. Sax, B Sax), 2 Hns, Tpt, 2 Tbn, Tuba, Perc, El. Gtr, B Gtr, Pno	1996
Oehring, Helmut  (b. 1961)  Germany	<i>Bernarda Albas Haus (with Iris ter Schiphorst)</i>	Boosey & Hawkes  Boosey.com	90'	Deaf Soloist (female), Soprano (male); 7 dancers, El. Gtr, Db, live electronics	1999

Oehring, Helmut  (b. 1961)  Germany	<i>Das BLAUMEER (aus: Einkehrtag)</i>	Boosey & Hawkes  Boosey.com	Not avail- able	Voice, El. Gtr, Orchestra, Live- Electronics.	2003
Oehring, Helmut  (b. 1961)  Germany	<i>Phillip</i>	Boosey & Hawkes  Boosey.com	12'	El. Gtr.	1997 – 1998
Oehring, Helmut  (b. 1961)  Germany	<i>VERLORENWA SSER</i>	Boosey & Hawkes  Boosey.com	25'	9 Deaf soloists, solo Voice, solo El. Gtr, solo Dbl Bass, large orchestra and live electronics	2000
Oehring, Helmut  (b. 1961)  Germany	<i>Wrong</i>	Boosey & Hawkes  Boosey.com	Not avail- able	Deafs, Oboe, Bass Trumpet or Trombone, Violin or Viola, El. Gtr, Perc, Live Electronics	Not avail- able
Oliver, John  (b. 1959)  Canada	<i>11: for 9 electric guitars and 2 basses</i>	Canadian Music Centre  musiccentre.ca	7'10"	9 El. Gtr, 2 Ele. Bass.	2000
Oliver, John  (b. 1959)  Canada	<i>En Amitié</i>	Canadian Music Centre  musiccentre.ca	Not avail- able	Version for S. Sax, El. Gtr, El. Bass, Drum set & digital audio Sax, Soprano, Acoustic Gtr, El. Gtr, Bass, Battery.	1994

Oswald, John  (b. 1953)  Canada	<i>Improvised</i>	Canadian Music Centre  musiccentre.ca	Not avail- able	El. Gtr, Alto Sax.	1978
Padding, Martijn  The Netherland s  (b. 1956)		<i>For a comprehensive list of Martijn Padding's compositions featuring electric guitar see the website:  Sheerpluck.de</i>			
Parker, C.S.L.  (b. 1961)  UK	<i>The Mill Keeper's Children Dance for the Faeries on the Moon</i>	Contemporary Music Centre Ireland  cmc.ie	4'	El. Gtr, Pno Synth.	2007
Parker, C.S.L.  (b. 1961)  UK	<i>Clary Mastenbroek at the Temple of Choga Zanbil</i>	Contemporary Music Centre Ireland  cmc.ie	75'	S-solo, Mez- solo, S. Sax, El. Gtr, Pno, Kbd, B. Gtr, Perc [Drum kit], Strings.	2006
Part, Arvo  (b. 1935)  Estonia	<i>Miserere</i>	Universal Edition  universaledition.com	Not avail- able	Soloists/Mixed Choir, Ob, Cl in Bb, Bcl in Bb, Bsn, Tpt in C, Tbn, Perc (3), Organ, El. Gtr, El. Bass.	Not avail- able
Penderecki , Krzysztof  (b. 1933)  Poloand	<i>Actions</i>	Schott  schott-music.com	17'	El. Gtr, Fl, B. Cl, S. Sax, T. Sax, B. Sax, Bsn, Acoustic Gtr, Org, Db, Tpt, Flghn, Picc, Tpt, 2 Tbn.	1971



Penderecki, Krzysztof  (b. 1933)  Poland	<i>Partita</i>	Schott  schott-music.com	19'	El. Gtr, Hrp, Db, B. Gtr, Picc 2, B. Cl, Bsn, 2.2.2.0, Timp, 6 Perc, Cel, 12.0.4.4.2	1971  Rev. 1991
Pisaro, Michael  (b. 1961)  USA	<i>Ascending Series</i>	Edition Wandelweiser  wandelweiser.de	10- 38'	2 Fl, Cl, El. Gtr, Vlc.	2008  – 2009
Pisaro, Michael  (b. 1961)  USA	<i>Asleep, Street, Pipes, tones</i>	Edition Wandelweiser  wandelweiser.de	70'	El. Gtr, Cl, Electronics	2009
Pisaro, Michael  (b. 1961)  USA	<i>El Flora</i>	Edition Wandelweiser  wandelweiser.de	12'	El. Gtr, Harm.	2008
Pisaro, Michael  (b. 1961)  USA	<i>Black, White, Red, Green, Blue.</i>	Edition Wandelweiser  wandelweiser.de	55'	El. Gtr.	2004
Pisati, Maurizio  (b. 1959)  Italy		<i>For a comprehensive list of Maurizio Pisati's compositions featuring electric guitar see the website:  Sheerpluck.de</i>			

Piazzolla, Astor  (1921– 1992  Argentina	<i>Biyuya</i>	Tonos Music  tonosmusic.com	Not avail- able	Pno, Bandoneon, Vln, El. Gtr, Dbl Bass.	Not avail- able
Piazzolla, Astor	<i>Buenos Aires Hora Cero</i>	Tonos Music  tonosmusic.com	Not avail- able	Pno, Bandoneon, Vln, El. Gtr, Dbl Bass.	Not avail- able
Piazzolla, Astor	<i>Comarra I</i>	Tonos Music  tonosmusic.com	Not avail- able	Pno, Bandoneon, Vln, El. Gtr, Dbl Bass.	Not avail- able
Piazzolla, Astor	<i>Comarra II</i>	Tonos Music  tonosmusic.com	Not avail- able	Pno, Bandoneon, Vln, El. Gtr, Dbl Bass.	Not avail- able
Piazzolla, Astor	<i>Comarra III</i>	Tonos Music  tonosmusic.com	Not avail- able	Pno, Bandoneon, Vln, El. Gtr, Dbl Bass.	Not avail- able
Piazzolla, Astor	<i>Campo, Camino Y Amor per Quintetto</i>	Tonos Music  tonosmusic.com	Not avail- able	Pno, Bandoneon, Vln, El. Gtr, Dbl Bass.	Not avail- able
Piazzolla, Astor	<i>Canto de Octubre</i>	Tonos Music  tonosmusic.com	Not avail- able	Pno, Bandoneon, Vln, El. Gtr, Dbl Bass.	Not avail- able
Piazzolla, Astor	<i>Celos</i>	Tonos Music  tonosmusic.com	Not avail- able	Pno, Bandoneon, Vln, El. Gtr, Dbl Bass.	Not avail- able
Piazzolla, Astor	<i>Che! Tango Che!</i>	Tonos Music  tonosmusic.com	Not avail- able	Pno, Bandoneon, Vln, El. Gtr, Dbl Bass.	Not avail- able
Piazzolla, Astor	<i>Chin Chin</i>	Tonos Music  tonosmusic.com	Not avail- able	Pno, Bandoneon, Vln, El. Gtr, Dbl Bass.	Not avail- able

Piazzolla, Astor	<i>Coral</i>	Tonos Music tonosmusic.com	Not avail- able	Pno, Bandoneon, Vln, El. Gtr, Dbl Bass.	Not avail- able
Piazzolla, Astor	<i>Escualo</i>	Tonos Music tonosmusic.com	Not avail- able	Pno, Bandoneon, Vln, El. Gtr, Dbl Bass.	Not avail- able
Piazzolla, Astor	<i>Kicho</i>	Tonos Music tonosmusic.com	Not avail- able	Pno, Bandoneon, Vln, El. Gtr, Dbl Bass.	Not avail- able
Piazzolla, Astor	<i>La Muerta de Ángel</i>	Tonos Music tonosmusic.com	Not avail- able	Pno, Bandoneon, Vln, El. Gtr, Dbl Bass.	Not avail- able
Piazzolla, Astor	<i>Libertango</i>	Tonos Music tonosmusic.com	Not avail- able	Pno, Bandoneon, Vln, El. Gtr, Dbl Bass.	Not avail- able
Piazzolla, Astor	<i>Lunfardo</i>	Tonos Music tonosmusic.com	Not avail- able	Pno, Bandoneon, Vln, El. Gtr, Dbl Bass.	Not avail- able
Piazzolla, Astor	<i>No 5 Titulos</i>	Tonos Music tonosmusic.com	Not avail- able	Pno, Bandoneon, Vln, El. Gtr, Dbl Bass.	Not avail- able
Piazzolla, Astor	<i>Oblivion</i>	Tonos Music tonosmusic.com	Not avail- able	Pno, Bandoneon, Vln, El. Gtr, Dbl Bass.	Not avail- able
Piazzolla, Astor	<i>Retrato de Milton</i>	Tonos Music tonosmusic.com	Not avail- able	Pno, Bandoneon, Vln, El. Gtr, Dbl Bass.	Not avail- able
Piazzolla, Astor	<i>Romance de Diablo</i>	Tonos Music tonosmusic.com	Not avail- able	Pno, Bandoneon, Vln, El. Gtr, Dbl Bass.	Not avail- able
Piazzolla, Astor	<i>Tango de Diablo</i>	Tonos Music tonosmusic.com	Not avail- able	Pno, Bandoneon, Vln, El. Gtr, Dbl Bass.	Not avail- able

Piazzolla, Astor	<i>Tango para un Ciudad</i>	Tonos Music tonosmusic.com	Not avail- able	Pno, Bandoneon, Vln, El. Gtr, Dbl Bass.	Not avail- able
Piazzolla, Astor	<i>Triunfal</i>	Tonos Music tonosmusic.com	Not avail- able	Pno, Bandoneon, Vln, El. Gtr, Dbl Bass.	Not avail- able
Piazzolla, Astor	<i>Vayamos al Diablo</i>	Tonos Music tonosmusic.com	Not avail- able	Pno, Bandoneon, Vln, El. Gtr, Dbl Bass.	Not avail- able
Piazzolla, Astor	<i>Vibraphonissimo</i>	Tonos Music tonosmusic.com	Not avail- able	Pno, Bandoneon, Vln, El. Gtr, Dbl Bass.	Not avail- able
Piazzolla, Astor	<i>Zigue Zague</i>	Tonos Music tonosmusic.com	Not avail- able	Pno, Bandoneon, Vln, El. Gtr, Dbl Bass.	Not avail- able
Pisaro, Michael  (b. 1961)  USA	<i>Rapport Abstrait</i>	Edition Wandelweiser  wandelweiser.de	30'	2 El. Gtr	2003
Pisaro, Michael  (b. 1961)  USA	<i>Unter Eichen</i>	Edition Wandelweiser  wandelweiser.de	25'	El. Gtr.	2003
Pohjannoro , Hannu  (b. 1963)  Finland	<i>Hehku</i>	Finnish Music Information Centre  fimic.fi	7'	Vln, El. Gtr, El. Bass, Accordion, Piano.	2000

Polansky, Larry (b. 1954) USA	<i>II – IV – V.</i>	Frog Peak Music frogpeak.org	Not available	Solo or two El Gtr.	Not available
Polansky, Larry (b. 1954) USA	<i>34 Chords: Christian Wolff in Hanover and Royalton</i>	Frog Peak Music frogpeak.org	Not available	El. Gtr.	Not available
Polansky, Larry (b. 1954) USA	<i>51 Melodies ("Pride holds the multitudes in a continual, habitual process of readornment").</i>	Frog Peak Music frogpeak.org	Not available	Two El. Gtr (or two melody instruments) and optional rhythm section.	Not available
Polansky, Larry (b. 1954) USA	<i>51 Harmonies ("The sun sets and rises without saturation of the senses, rises and sets without redemption of the soul")</i>	Frog Peak Music frogpeak.org	Not available	Three Perc, El. Gtr, and optional live computer.	Not available
Polansky, Larry (b. 1954) USA	<i>The World's Longest Melody</i>	Frog Peak Music frogpeak.org	Not available	El. Gtr, Bass, Drums and optional soloists.	Not available
Power, Karen (b. 1977) Ireland	<i>Squeeze Birds to Improve Your Garden's Plant Variety</i>	Contemporary Music Centre Ireland cmc.ie	9'	A. Fl, Cl, Tbn, El. Gtr, Vln, Vla, Vlc, Db, Tape.	2008

Power, Karen  (b. 1977)  Ireland	<i>I Fought an Orag-utan</i>	Contemporary Music Centre Ireland  cmc.ie	11'	Fl, Cl, S. Sax, Kbd, Perc, El. Gtr, Vln. Db.	2000
Pozniak, Alex  (b. 1982)  Australia	<i>Illuminations</i>	Self published	12'	Fl, Cl, Sax, Vln, Vla, Cello, 1x Perc, 3 El. Gtr	2009
Pozniak, Alex  (b. 1982)  Australia	<i>Flying Vertices</i>	Self published	Not avail- able	El. Gtr.	2010
Psathas, John  (b. 1966)  New Zealand	<i>Calenture</i>	New Zealand Music Centre  sounz.org.nz	9'	2 Grand Pno, El. Gtr.	1995
Psathas, John  (b. 1966)  New Zealand	<i>Mal Occhio</i>	New Zealand Music Centre  sounz.org.nz	Not avail- able	S. Sax, El. Gtr, Perc, Pno.	2003
Psathas, John  (b. 1966)  New Zealand	<i>Spike</i>	New Zealand Music Centre  sounz.org.nz	11'	S. Sax, Ele. Gtr, Marimba/Vibra- phone, Vlc, Dbl Bass, Pno.	1996

Pulkkinen, Risto  (b. 1954)  Finland	<i>Eksynyt Op. 19</i>	Finnish Music Information Centre  fimic.fi	3'	Male Voice and Orchestra, Perc, Drum set, El. bass, El. Guitar, Pno and Strings	1993
Pulkkinen, Risto  (b. 1954)  Finland	<i>Käsi käteen Op. 15</i>	Finnish Music Information Centre  fimic.fi	3'	Male Voice and Orchestra, Perc, Drum set, El. bass, El. Guitar, Pno and Strings.	1991
Pulkkinen, Risto  (b. 1954)  Finland	<i>Aamu Sarastaa</i>	Finnish Music Information Centre  fimic.fi	3'	Male Voice and Orchestra, Perc, Drum set, El. bass, El. Guitar, Pno and Strings.	1991
Pulkkinen, Risto  (b. 1954)  Finland	<i>Rakkauteni</i>	Finnish Music Information Centre  fimic.fi	3'	Female Voice and Orchestra, Perc, Drum set, El. bass, El. Guitar, Pno and Strings.	1989
Quaranto, Felice  (1910– 1992)  Nationality not available.	<i>Strofe per 5/3</i>	Casa Ricordi  ricordi.it	12'	Pno, Vln, El. Gtr, Vlc, tamburello.	1970
Radauer, Irmfried  (1928– 1999)  Austria	<i>Curriculum</i>	Edition Peters  edition-peters.de  Austrian Music Information Centre  Musicaustria.at	Not avail- able	El. Gtr, Orchestra.	1956 – 1957

Radauer, Irmfried  (1928– 1999)  Austria	<i>Siau-Tschu</i>	Edition Peters  edition-peters.de	13'	El. Gtr, Orchestra.	1960
Rae, Allan  (b. 1942)  Canada	<i>Crack in the Cosmic Turtle</i>	Canadian Music Centre  musiccentre.ca	30'	Jazz group: 1 Reed (amplified A. Fl, B. Cl, S. Sax, T. Sax Trumpet, Bass Tbn, Tuba, El. Gtr, El. Bass, Pno (El. Piano), 2 Perc/222,2/222 1/2, Strings.	1975
Räisänen, Tomi  (b. 1976)  Finland	<i>Elevator Music on Mars</i>	Finnish Music Information Centre  fimic.fi	7'15"	A/S. Sax, El. Gtr, Synthesizer, Perc and Tape.	2003
Räisänen, Tomi  (b. 1976)  Finland	<i>Lacrimosa</i>	Finnish Music Information Centre  fimic.fi	3'	4 Voices (Soprano, Mezzo- Soprano, Tenor, Baritone) and ensemble of 14 players: 1 Fl, 1 Cl, 1 S. Sax, 1 A. Sax, 1 Tpt, 2 Horns, 2 Tbn, 1 Tuba, 1 El. Gtr, 1 El. Bass Gtr, Pno and Perc.	2003 – 2004



Rathburn, Eldon (b. 1916– 2008) Canada	<i>The Metamorphic Ten</i>	Canadian Music Centre musiccentre.ca	20'	For Accordion, Mandolin, 5- String Banjo, Gtr (El. Gtr), Double Bass, Harp, Pno (Celesta), and 3 Perc.	1971
Raum, Elizabeth (b. 1945) Canada	<i>Pheonix</i>	Canadian Music Centre musiccentre.ca	10'	For Fl, Cl, Tbn, Pno, Vlc, Perc. Original dance version for tape, Fl, El. Gtr (or synth.), Dbl Bass (or Vlc) and Pno withdrawn by composer 1990.	1986, rev. 1990
Rechberger , Herman (b. 1947) Austria	<i>Gobustan Rhythms</i>  (Ballet)	Finnish Music Information Centre fimic.fi	40'	Pre-recorded Recitation, Singer, Fl, S. Sax, El. Gtr, El. Bass, Vlc, Solo, 2 Tbn, Perc (4 players), String Orchestra.	2002
Rechberger , Herman (b. 1947) Austria	<i>II Nave di Pazzi</i>	Finnish Music Information Centre fimic.fi	20'	Harp, Pno, El. Gtr, Strings.	1996
Rechberger , Herman (b. 1947) Austria	<i>Tobá hanyé</i>	Finnish Music Information Centre fimic.fi	15'	El. Gtr, S/A. Sax, Tbn, Pno, Djembe and Udu.	2004
Reich, Steve (b. 1936) USA	<i>2x5</i>	Boosey & Hawkes Boosey.com	20'	2 Drum kits, 2 Pno, 4 El. Gtr, 2 Bass Gtr.	2009

Reich, Steve  (b. 1936)  USA	<i>Electric Guitar Phrase</i>	Boosey & Hawkes  Boosey.com	15'	El. Gtr, Tape.	2000
Reich, Steve  USA  (b. 1936)	<i>Electric Counterpoint</i>	Boosey & Hawkes  Boosey.com	12'	El. Gtr, Tape.	1987
Ríain, Ailís Ní  (b. 1974)  Ireland	<i>Metro:Gnome</i>	Contemporary Music Centre Ireland  cmc.ie	4'	Picc, Cl, S. Sax, A. Sax, Tpt, 2 Horn, 2 Tbn, Tuba, El. Gtr, B. Gtr, Perc, Pno.	2001 rev. 2005
Rabinovitch, Sid  Dates not available  Canada	<i>Shadowplay</i>	Canadian Music Centre  musiccentre.ca	15'52 "	El. Gtr, Orchestra.	Not avail- able
Risher, Tim  (b. 1957)  USA	<i>Festina Lente</i>	American Music Centre  amc.net	15'	1) Lentulus – Ob, Vla, A. Fl (horn), Pno, Synthesizer, El Bass Gtr. 2) Velox – Vln, Vla, Synthesizer, Pno, El. Gtr, El. Bass Guitar, Darabukha.	2002
Risher, Tim  (b. 1957)  USA	<i>The Wrong Sun</i>	American Music Centre  amc.net	10'	1 El. Keyboard soloist(s) ,1 Vln soloist(s) ,1 El. Bass soloist(s), 1 El. Gtr soloist(s).	2000

Rodrigues, Ernesto  (b. 1959)  Portugal	<i>Assemblages I</i>	Portuguese Music Information Centre  mic.pt	17'49 ”	El. Gtr, Cl, Vln, Perc.	2002
Rodrigues, Ernesto  (b. 1959)  Portugal	<i>Assemblages II</i>	Portuguese Music Information Centre  mic.pt	10'21 ”	El. Gtr, Vla, Cl, Perc, Inside Pno.	2002
Rodrigues, Ernesto  (b. 1959)  Portugal	<i>Assemblages III</i>	Portuguese Music Information Centre  mic.pt	9'39”	Vln, Vlc, Pocket Tpt, El. Gtr, Inside Pno and Acoustic Gtr.	2001
Rodrigues, Ernesto  (b. 1959)  Portugal	<i>Sable</i>	Portuguese Music Information Centre  mic.pt	20'22 ”	El. Gtr, Vla, Alto Sax.	2005
Rodrigues, Ernesto  (b. 1959)  Portugal	<i>Flip Coins</i>	Portuguese Music Information Centre  mic.pt	14'12 ”	Vla, Vlc (Pocket Tpt), A. Sax and El. Gtr.	2006
Rodrigues, Ernesto  (b. 1959)  Portugal	Over Turn	Portuguese Music Information Centre  mic.pt	22'10 ”	Vla, Vlc, A. Sax and El. Gtr.	2006
Rodrigues, Ernesto  (b. 1959)  Portugal	Sitting on a Fence	Portuguese Music Information Centre  mic.pt	18'48 ”	Vla, Vlc, A. Sax and El. Gtr.	2006

Rodrigues, Ernesto  (b. 1959)  Portugal	Refrain	Portuguese Music Information Centre  mic.pt	26'45 ”	El. Gtr, Cello, Pno, Electronics.	2008
Rodrigues, Ernesto  (b. 1959)  Portugal  and  Mota, Manuel  (b. 1970)  Portugal	Electric Trio	Portuguese Music Information Centre  mic.pt	Not avail- able	2 El. Gtr, Vla.	2005
Rodrigues, Ernesto  (b. 1959)  Portugal  and Mota, Victor  (b. 1970)  Portugal	Espinal	Portuguese Music Information Centre  mic.pt	6'26”	El. Gtr, Pno, vla	2003

Rodrigues, Ernesto  (b. 1959)  Portugal and Mota, Victor  (b. 1970)  Portugal	<i>Inflamación</i>	Portuguese Music Information Centre  mic.pt	5'08"	El. Gtr, Pno, Vla.  (Not mentioned on website but appears to be part of the following series writing in conjunction with Victor Mota in 2003, which all have the same instrumentation )	2003
Rodrigues, Ernesto  (b. 1959)  Portugal and Mota, Victor  (b. 1970)  Portugal	<i>Lesión</i>	Portuguese Music Information Centre  mic.pt	7'44"	El. Gtr, Pno, Vla.	2003
Rodrigues, Ernesto  (b. 1959)  Portugal and Mota, Victor  (b. 1970)  portugal	<i>Natural</i>	Portuguese Music Information Centre  mic.pt	6'39"	El. Gtr, Pno, Vla.	2003

Rodrigues, Ernesto  (b. 1959)  Portugal  and Mota, Victor  (b. 1970)  Portugal	<i>Tensión</i>	Portuguese Music Information Centre  mic.pt	12'11 ”	El. Gtr, Pno, Vla.	2003
Rodrigues, Ernesto  (b. 1959)  Portugal  (António Chaparrir o  Dates and nationality not available) (José Oliveira  Dates and nationality not available)	<i>Landscape with Persons and Furniture</i>	Portuguese Music Information Centre  mic.pt	14'19 ”	El. Gtr, Perc, Vla.	2001

<p>Rodrigues, Ernesto (b. 1959) Portugal (António Chaparreiro o Dates and nationality not available) (José Oliveira Dates and nationality not available)</p>	<p><i>Something is Going to Happen</i></p>	<p>Portuguese Music Information Centre mic.pt</p>	<p>19'03 ”</p>	<p>El. Gtr, Perc, Vla.</p>	<p>2001</p>
<p>Rodrigues, Ernesto (b. 1959) Portugal (António Chaparreiro o Dates and nationality not available) (José Oliveira Dates and nationality not available)</p>	<p><i>Round Angles and Sharp Lines</i></p>	<p>Portuguese Music Information Centre mic.pt</p>	<p>16'46 ”</p>	<p>El. Gtr, Perc, Vla.</p>	<p>2001</p>

Rodrigues, Ernesto  (b. 1959)  Portugal  (António Chaparrir o  Dates and nationality not available) (José Oliveira  Dates and nationality not available)	<i>Lateral Thinking</i>	Portuguese Music Information Centre  mic.pt	20'17 ”	El. Gtr, Perc, Vla.	2001
Romitelli, Fausto  (1963– 2004)  Italy	<i>An Index of Metals</i>	Casa Ricordi  ricordi.it	55’	Voice (con Megafono), Fl. Pitch pipe), Ob, Cl, Tbn, El. Gtr, Electronics, Video.	2003
Romitelli, Fausto  (1963– 2004)  Italy	<i>Audiodrome</i>	Casa Ricordi  ricordi.it	13’	2 Fl, Ott, 2 Ob, Cr. Ingl, 2 Cl. In Sib, B. Cl, 3 Fg, 4 Cr., 3 Tbn, 3 Tbn, Tu., 3 Perc, El. Gtr, Pno.	2003
Romitelli, Fausto  (1963– 2004)  Italy	Dead City Radio	Casa Ricordi  ricordi.it	13’	2 Fl., Ott., 2 Ob., Cr.Angl., 2 Cl. In Sib, Cl.b, 3 Fg., 4 Cr., 3 Trb., 3 Tr, Tbn, Perc, El. Gtr Pno.	2004



Romitelli, Fausto  (1963– 2004)  Italy	<i>Green Yellow Blue</i>	Casa Ricordi  ricordi.it	6'20' '	Fl, Ob, Cl, Tbn, Perc, El. Gtr.	2003
Romitelli, Fausto  Italy  (1963– 2004)	<i>Professor Bad Trip: Lesson I</i>	Casa Ricordi  ricordi.it	14'	Fl, B. Fl, Cl, El. Gtr, Pno. Electronics, Perc, Vl, Vla, Vlc.	1998
Romitelli, Fausto  (1963– 2004)  Italy	<i>Professor Bad Trip: Lesson II</i>	Casa Ricordi  ricordi.it	12'	Fl, Cl, B. Cl. B.Tbn. Chit. El. Bsn, Perc. Pno. (. Live Electronics) Vl. Vla Vlc	1998
Romitelli, Fausto  (1963– 2004)  Italy	<i>Professor Bad Trip: Lesson III</i>	Casa Ricordi  ricordi.it	15'	Fl, B. Fl, Cl, B. Cl, Tbn, El. Gtr, El. Bass, Pno, Perc, Vl, Vla, Vlc, CD audio.	2000
Romitelli, Fausto  (1963– 2004)  Italy	<i>TV Trash Trance</i>	Casa Ricordi  ricordi.it	12'	El. Gtr	2002

Roth, Nick (b. 1982) Ireland	<i>Innehølder</i>	Contemporary Music Centre Ireland  cmc.ie	17'	Fl, 3 Cl, S. Sax, 2 A. Sax, T. Sax, Tpt, Flgh, Horn, Tbn, Vln, Vlc, Pno, El. Gtr, B. Gtr, Drum kit.	2009
Roth, Nick (b. 1982) Ireland	<i>pliARS</i>	Contemporary Music Centre Ireland  cmc.ie	9'	Female voice, S. Sax, A. Sax, T. Sax, Tpt, Tbn, El. Gtr, B. Gtr, El. Org, Drum kit.	2008
Roumain, Daniel Bernard  Dates not available  USA	<i>Gheto Strings</i>	Subito Music  subitomusic.com	25'	For Acoustic or El. Gtr quartet.	2001
Roumain, Daniel Bernard  Dates not available  USA	<i>Reasons for Moving</i>	Subito Music  subitomusic.com	25'	Jazz band, El. Gtr, Digital sounds.	2004
Ryanhart, Dylan (b. 1981) Ireland	<i>Mouthpeice</i>	Contemporary Music Centre Ireland  cmc.ie	15'	Female voice, S. Sax, A. Sax, T. Sax, Tpt, Vlc, El. Gtr, B. Gtr, El. Org, Drum kit.	2008
Ryanhart, Dylan (b. 1981) Ireland	<i>There is so much to smile about</i>	Contemporary Music Centre Ireland  cmc.ie	10'	Female voice, S. Sax, A. Sax, T. Sax, Tpt, Vlc, El. Gtr, B. Gtr, El. Org, Drum kit.	2007

Ryanhart, Dylan  Ireland  (b. 1981)	<i>Spin Cycle</i>	Contemporary Music Centre Ireland  cmc.ie	8'	Female voice, Cl S. Sax, A. Sax, T. Sax, Tpt, Tbn, Vlc, El. Gtr, El. Org, 4 revolving loudspeakers.	2006
Ryanhart, Dylan  Ireland  (b. 1981)	<i>Dusty Time</i>	Contemporary Music Centre Ireland  cmc.ie	6'	Female voice, S. Sax, A. Sax, T. Sax, Tpt, Vlc, El. Gtr, B. Gtr, El. Org, Drum kit.	2005
Ryanhart, Dylan  Ireland  (b. 1981)	<i>History Revision</i>	Contemporary Music Centre Ireland  cmc.ie	12'	Female voice, S. Sax, A. Sax, T. Sax, Tpt, Tbn, Euph, El. Org, Vib, Drum kit, El. Gtr, B. Gtr, Vlc.	2005
Ryanhart, Dylan  Ireland  (b. 1981)	<i>The Difference Between Light and Hard</i>	Contemporary Music Centre Ireland  cmc.ie	7'	Female voice, S. Sax, A. Sax, T. Sax, Tpt, Tbn, El. Org, Drum kit.	2005
Ryanhart, Dylan  Ireland  (b. 1981)	<i>Humm..</i>	Contemporary Music Centre Ireland  cmc.ie	9'	Female voice, S. Sax, A. Sax T. Sax, Tpt, Vlc El. Gtr, B. Gtr, El. Org, Drum kit.	2004
Ryanhart, Dylan  Ireland  (b. 1981)	<i>Orimantal</i>	Contemporary Music Centre Ireland  cmc.ie	12'	Female voice, S. Sax, A. Sax T. Sax, Tpt, Vlc El. Gtr, B. Gtr, El. Org, Dru m kit.	2004
Ryanhart, Dylan  Ireland  (b. 1981)	<i>Natalis Musica</i>	Contemporary Music Centre Ireland  cmc.ie	9'	Female voice, S. Sax, A. Sax T. Sax, Tpt, Vlc El. Gtr, B. Gtr, El. Org, Drum kit.	2004

Ryanhart, Dylan  (b. 1981)  Ireland	<i>Twist Your Shape</i>	Contemporary Music Centre Ireland  cmc.ie	11'	Female voice, S. Sax, A. Sax T. Sax, Tpt, Vlc El. Gtr, B. Gtr, El. Org, Drum kit.	2004
Ryanhart, Dylan  (b. 1981)  Ireland	<i>Happy New Year</i>	Contemporary Music Centre Ireland  cmc.ie	4'	Female voice, S. Sax, A. Sax T. Sax, Tpt, Vlc El. Gtr, B. Gtr, El. Org, Dru mkit.	2003
Ryanhart, Dylan  (b. 1981)  Ireland	<i>Inside</i>	Contemporary Music Centre Ireland  cmc.ie	4'	Female voice, S. Sax, A. Sax T. Sax, Tpt, Vlc El. Gtr, B. Gtr, El. Org, Drum kit.	2003
Ryanhart, Dylan  (b. 1981)  Ireland	<i>No Fehr</i>	Contemporary Music Centre Ireland  cmc.ie	6'	Female voice, S. Sax, A. Sax T. Sax, Tpt, Vlc El. Gtr, B. Gtr, El. Org, Drum kit.	2003
Ryanhart, Dylan  (b. 1981)  Ireland	<i>Reflected Reasoning</i>	Contemporary Music Centre Ireland  cmc.ie	8'	Female voice, S. Sax, A. Sax T. Sax, Tpt, Vlc El. Gtr, B. Gtr, El. Org, Drum kit.	2003
Rypdal, Terje  (b. 1947)  Norway		<i>For a more comprehensive list of Terje Rypdal's compositions featuring electric guitar see the website:  Sheerpluck.de</i>			

Russo, William (1928–2003) USA	<i>Three Pieces for Blues Band and Symphony Orchestra op. 50</i>	Peer Music Classical Peermusic-classical.de Deutsche Grammophon 463 665-2	24'17 ”	Orchestra, El. Gtr, Harmonica, drums, El. Bass, El. Pno.	1960
Savery, Finn (b. 1933) Denmark	<i>Blues for Strygere</i>	sheerpluck.de	Not available	El. Gtr, String quartet	1956 – 1957
Savery, Finn (b. 1933) Denmark	<i>Den Forvandlede Prinsesse</i>	sheerpluck.de	20'	El. Gtr, Fl, Pno, Vibraphone, Cello	1957
Savery, Finn (b. 1933) Denmark	<i>Egetaepper</i>	sheerpluck.de	Not available	El. Gtr, Cl, Perc, Pno, Vibraphone, Db.	1959
Savery, Finn (b. 1933) Denmark	<i>Prolog-Epilog</i>	sheerpluck.de	Not available	El. Gtr, Sax, Horn, Tpt, Tromb, Perc Db.	1960
Savery, Finn (b. 1933) Denmark	<i>Sid ned!</i>	sheerpluck.de	Not available	El. Gtr, Sax, Horn, Tp, Tbn, Perc, Db.	1960

Savery, Finn  (b. 1933)  Denmark	<i>Trekanten</i>	sheerpluck.de	Not avail- able	El. Gtr, Pno, Db.	1958
Savery, Finn  (b. 1933)  Denmark	<i>Veil for Midnight</i>	sheerpluck.de	Not avail- able	El. Gtr, Pno, Db.	1958
Saunders, Rebecca  (b. 1967)  UK	<i>Dichroic Seventeen</i>	Edition Peters edition-peters.com	17'30 ''	Accordion, 2 Perc, Piano, El. Gtr, Vlc, 2 Vibraphones.	Not avail- able
Saunders, Rebecca  (b.1967)  UK	<i>A Visible Trace</i>	Edition Peters edition-peters.com	17'	Picc, A. Fl, Bcl, Pno, El. Gtr (Tenor- Banjo)—Str (1.0.1.1.1).	Not avail- able
Schnebel, Dieter  (b. 1930)  Germany	Compositio Versuche IV	Schott schott-music.com	11'	El. Gr, Orchestra.	1955 – 1956 Rev. 1964 – 1965

Scholes, Peter  (b. 1957)  New Zealand  and Zagni, Ivan  (b. 1942)  New Zealand	<i>Formations</i>	New Zealand Music Centre  sounz.org.nz	12'	El. Gtr, Cl.	1983
Scholes, Peter  (b. 1957)  New Zealand	<i>Who's There?</i>	New Zealand Music Centre  sounz.org.nz	Not avail- able	El. Gtr, Clarinet.	1983
Scholes, Peter  (b. 1957)  New Zealand	<i>Postcard</i>	New Zealand Music Centre  sounz.org.nz	Not avail- able	El. Gtr, Clarinet.	1984
Scholes, Peter  (b. 1957)  New Zealand	<i>Time for Three</i>	New Zealand Music Centre  sounz.org.nz	12'	El. Gtr, Clarinet, Drum machine.	1984

Scholes, Peter (b. 1957)  New Zealand	<i>Drum</i>	New Zealand Music Centre  sounz.org.nz	8'	El. Gtr, Clarinet/Sax Drum machine.	1984
Scholes, Peter (b. 1957)  New Zealand	<i>Solos</i>	New Zealand Music Centre  sounz.org.nz	12'	Fl, Cl, Vlc, 2 El. Gtr, Bass Gtr and Perc.	1983
Schönbach , Dieter (b. 1931)  Germany	<i>Canticum Psalmi Resurrectionis</i>	Universal Edition  universaledition.com	9'	El. Gtr, Sop, Fl, Tpt, Perc, Vla (2).	1958
Sculthorpe, Peter (b. 1929)  Australia	<i>Cantares: for Guitars and Strings</i>	Australian Music Centre  australianmusiccentre.co m.au	20'	Flamenco Gtr, Classical Gtr, El. Bass, Acoustic Gtr, El. Gtrs, String Quartet.	1979
Sermilä, Jarmo (b. 1939)  Finland	<i>A Prague Thoroughfare</i>	Finnish Music Information Centre  fimic.fi	11'- 13'	El. Gtr, 2 Vln, Vla, Cello.	1983



Schafer, R. Murray (b. 1933) Canada	<i>Loving</i>	Canadian Music Centre musiccentre.ca	70'	For Soprano, 3 Mezzo-Sopranos, 3 spoken roles, 2 Vln, Vla, Vlc, Contrabass, Harp, Pno (Harpsichord, Celesta), Spanish Gtr, El. Gtr, Banjo, Mandolin, 6 Perc, Electronic and Pre-recorded sounds on Tape.	1965
Schafer, R. Murray (b. 1933) Canada	<i>Vanity</i>	Canadian Music Centre musiccentre.ca	Not available	For Mezzo-Soprano, Harpsichord, Harp, Mandolin, El. Gtr, Banjo, Vln, Vlc, 2 Perc, and Prepared Tape.	1965
Shapiro, Harold (b. 1920) USA	<i>On Green Mountain</i>	Peer Music Classical Peermusic-classical.de	9'	El. Gtr, Orchestra.	1958
Sharman, Rodney (b. 1958) Canada	<i>The Black Domino: for three electric guitars</i>	Canadian Music Centre musiccentre.ca	Not available	Originally for Organ (1982) but a version for 3 El. Gtrs exists (1988)	1988

Sharman, Rodney  (b. 1958)  Canada	<i>In Praise of Shadows</i>	Canadian Music Centre  musiccentre.ca	Not avail- able	2 Fl, Bcl, S. Sax, A. Sax, Horn in F, Trpt in C, 2 Tbn, Tuba, El. Gtr, El. Bass Gtr, Pno, Perc (Vibraphone, Chimes, Triangle, Suspended Cymbal, Gong.	2003
Schiphorst, Iris ter  (b. 1956)  Germany	<i>Aus Kindertagen: verloren</i>	Boosey & Hawkes  Boosey.com	22'	2 Instrumental Ensembles, El. Gtr and performance CDs	2004 – 2005
Schiphorst, Iris ter  (b. 1956)  Germany	<i>Bernarda Albas Haus (with Helmut Oehring)</i>	Boosey & Hawkes  Boosey.com	90'	Deaf Soloist (female), Soprano (male); 7 Dancers; El. Gtr, Db, live Electronics.	1990
Schiphorst, Iris ter  (b. 1956)  Germany	<i>My Sweet Latin Lover</i>	Boosey & Hawkes  Boosey.com	15'	Plugged Fl, 2 Perc and 5 El. Gtr.	2002
Schick, Paul  Dates and nationality not available	<i>DÉLIRES.</i>	Frog Peak Music  frogpeak.org	Not avail- able	Song cycle on poems by Rimbaud, for Tenor, Alto, 2 Electric Guitar, Bass Guitar, Percussion.	Not avail- able

Schick, Paul  Dates and nationality not available	<i>MISANTHROPE</i>	Frog Peak Music  frogpeak.org	Not avail- able	Opera in 5 Acts. For Singers and El. Gtr.	Not avail- able
Schick, Paul  Dates and nationality not available	<i>OEDIPUS.</i>	Frog Peak Music  frogpeak.org	Not avail- able	Opera in 5 Acts. For Singers, English Horn, A. Sax, T. Sax, Bsn,El. Gtr, Mandolin, Harp.	Not avail- able
Sirulnikoff , Jack  (b. 1931)  Canada	Concerto for Springtime	Canadian Music Centre  musiccentre.ca	11'	Male vocalist and Jazz Orchestra, 2 A. Sax, T. Sax, B. Sax, Cl, Fl, 2 El. Gtr, El. Bass, El. Organ, Vibraphone, Perc.	1973
Slonimsky, Sergie  Russia  (b. 1932)	Concerto for Orchestra, 3 electric guitars and solo instruments.	Edition Wilhelm Hansen  ewh.dk  (schirmer)	27'	Orchestra, 3 El. Gtrs, Sax, Drums, Pno.	1973
Slonimsky, Sergie  (b. 1932)  Russia	<i>Exotic Suite for 2 vln, 2 elc gtr, sax, perc.</i>	Edition Wilhelm Hansen  ewh.dk  (schirmer)	33'	2 Vln, 2 El. Gtr, Sax, Perc.	1976

Smetanin, Michael  (b. 1958)  Australia	<i>Obsession</i>	Self published	8'	El. Gtr, Pno, Drum kit, Cello, Double Bass.	1995
Smetanin, Michael  (b. 1958)  Australia	<i>Hot Block I</i>	Self published	12'	El. Gtr, Perc, Electronic Sounds.	1992
Smetanin, Michael  (b. 1958)  Australia	<i>Hot Block II</i>	Self published	Not avail- able	El. Gtr, Perc, Electronic Sounds	1998
Smetanin, Michael  (b. 1958)  Australia	<i>Skinless Kiss of Angels</i>	Self published	Not avail- able	Not available	Not avail- able
Smetanin, Michael  Australia  (b. 1958)	<i>Gauguin</i>	Self published	Not avail- able	Sop (2), Ten (2), Bar (2), Fl, Ob, Sax, Tpt, Tbn, Perc, 4 Island Perc, El. Gtr, Vlc, Db, Harp, Keyboard (2)	1995 - 1996

Smetanin, Michael (b. 1958) Australia	<i>If You're Not Afraid</i>	Self published	Not available	Sop, Baritone, Fl, Ob, Cl, B. Cl, Perc, El. Gtr, El. Mandolin, Pno, Vla, Vlc.	1993
Smetanin, Michael (b. 1958) Australia	<i>Power of Everyday Things</i>	Australian Music Centre australianmusiccentre.com.au	10'	Fl, Cl, Sax, Horn, Tpt, Tbn, Tuba, Perc, El. Gtr, Bass Gtr, Pno.	2002
Smythe, Mark  Dates not available  New Zealand	<i>Music for "Gold"</i>	New Zealand Music Centre  sounz.org.nz	45'	Pno, Mandolin, El. Gtr, Pno Accordion, Gong.	1997
Solomons, David. W. (b. 1953)  UK	<i>A Tango Already</i>	Musik Fabrik Publishing  classicalmusicnow.com/	Not available	Vln, El. Gtr, Bandoneon, Pno, Bass.	Not available
Southam, Ann (1937–2010)  Canada	<i>Improvising Music</i>	Canadian Music Centre  musiccentre.ca	Not available	Fl, Cl, Bsn, S. Sax, Alto Sax, Tenor Sax, Baritone Sax, Tpt, Tbn, Drum Kit, Perc, El. Gtr, Pno, Vln, Vlc, El. (acoustic) Bass.	1988

Stalling, David  (b. 1971)  Germany, lives in Ireland	<i>En Trance</i>	Contemporary Music Centre Ireland  cmc.ie	9'	A. Sax, El. Gtr, 2 Vla, Vlc, Db, live Electronics.	2003
Staniland, Andrew  Dates not available  Canada	<i>1977 Devolution</i>	Canadian Music Centre  musiccentre.ca	Not avail- able	Flute, Clarinet, Bassoon, Horn, Trombone, Electric Guitar, Piano, Percussion, 2 Violins, Viola, Cello, Bass.	2009
Steen- Anderson, Simon  (b. 1976)  Denmark	<i>Amongst</i>	Edition Sanfundet  samfundet.dk	33'	Amplified Gtr, 3.0.3.0/4.3.3.0/ 3 Perc, Harp, Pno, 12.10.8.6.5.	2005
Steven, Donald  (b. 1945)  Canada	<i>Harbinger: a Fantasia</i>	Canadian Music Centre  musiccentre.ca	12'	Soprano Solo/2, Picc, 12 Bass Cl, 0/0000/3 Perc, Gtr (Acoustic & El), Piano (Celesta), Strings.	1969
Stockhau- se n, Karlheinz  (1928- 2007)  Germany	<i>Gruppen</i>	Universal Edition  universaledition.com	25'	El Gtr, 3 orchestras, Percussion ensemble.	1955 – 1957

Suilamo, Harri (b. 1954) Finland	Aiva	Finnish Music Information Centre  fimic.fi	9'	2232/4230/12/1 , Pno, El. Harpsichord, Accordion, El. Gtr, Sax, Strings: 8-8-6- 6-4.	1991
Suilamo, Harri (b. 1954) Finland	<i>Ssh! Ovi aamumaahan</i>	Finnish Music Information Centre  fimic.fi	9'	2232/4230/12/1 , Pno, El. Harpsichord, Accordion, El. Gtr, Sax, Strings: 8-8-6- 6-4.	1998
Sullivan, Timothy (b. 1954) Canada	<i>Frieze</i>	Canadian Music Centre  musiccentre.ca	15'	Pno, Fl (Picc), Ob, Cl, Bcl, Horn, 2 Tpt, Tbn, Accordion, Perc, El. Gtr, Vlc, and Dbl Bass.	1982
Sullivan, Timothy (b. 1954) Canada	<i>Rhythm sections for jazz band</i>	Canadian Music Centre  musiccentre.ca	7'	For 2 A. Sax, 2 T. Sax, 1 B. Sax, 2 Tpt, 2 Tbn, El. Gtr, Pno, Bass, Drum kit.	2001
Swoger- Ruston, Paul (b. 1968) Canada	<i>1968 The crow, the road, and the ramble</i>	Canadian Music Centre  musiccentre.ca	3'30"	T. Sax, El. Gtr, El Pno, Cello.	2004
Takemitsu, Toru (b. 1930- 1996) Japan	<i>Arc: Part I</i>	Editions Salabert  salabert.fr	16'	El. Gtr, Pno, Picc, A. Fl, Cor A, B. Cl, Db, 7 Perc, Harp, Cel, String Quartet, 12.10.8.6.6	1963 – 1966 Rev 1976

Takemitsu, Toru (b. 1930- 1996) Japan	<i>Arc: Part 2</i>	Editions Salabert salabert.fr	17'	El. Gtr, Pno, Picc, A. Fl, Cor A, B. Cl, Db, B. Tbn, 3 Perc, Cel.	1963 – 1966 Rev 1976
Takemitsu, Toru (b. 1930- 1996) Japan	<i>Cassiopeia</i>	Editions Salabert salabert.fr	20'	El. Gtr, Perc, Picc, A. Fl, Cor A, Cl, B. Cl, Db, B. Tbn, Harp 2, Perc 4.	1971
Tally, Mirjam (b. 1976) Estonia	<i>Rowan Rain</i>	Estonian Music Centre emic.ee/?lang=eng  also found on  Swedish Music Information Centre  mic.se  (Publisher SMIC)	Not avail- able	S. Sax, A. Sax, El. Gtr, Accordion and Live Electronics.	2008
Tally, Mirjam (b. 1976) Estonia	<i>2 Pages, 122 Words on Music and Dance</i>	Swedish Music Information Centre mic.se  (Publisher SMIC)	15'	4 male solo voices, male choir, El. Gtr, Perc, 2 singing bowls (ad lib) & tape (ad lib)	2005
Tenney, James (b. 1934) USA	Septet for Electric Guitar and Electric Bass	Frog Peak Music frogpeak.org	Not avail- able	El. Gtr, El. Bass Gtr.	Not avail- able



Tenney, James (b. 1934)  USA	<i>Water on the Mountainfire in Heaven</i>	Canadian Music Centre  musiccentre.ca	Not avail- able	For 6 Electric Guitars.	1985
Tian, Leilei (b. 1971)  China	<i>Xiu II</i>	Swedish Music Information Centre  mic.se	10'	2010 2121 01 0 A. Sax, T. Sax, El. Gtr, El. Bass, Pno.	2004
Tiensuu, Jukka (b. 1948)  Finland	<i>Passage</i>	Finnish Music Information Centre  fimic.fi	15'	Chamber Ensemble with live Electronics, Soprano, Bcl, S.Sax, Tbe, El. Gtr, live Electronics, Vln, Vla, Vlc, Dbl Bass.	1980
Thorne, Francis (b. 1922)  USA	<i>Electrified Elan</i>	Theodore Presser Company  presser.com	11'	El. Gtr.	Not avail- able
Top, Edward (b. 1972)  Netherland s	34, concerto for electric guitar and ensemble	Netherlands Music Centre  www.muzyiekcentrumned erland.nl/en/	15'	Fl, S. Sax, 2 B. Sax, Horn, 3 Tpt, 2 Tbn, B. Tbn, Perc, Pno, El. Gtr (solo).	2006
Toral, Rafael (b. 1967)  Portugal	<i>Firebee Drone</i>	Portuguese Music Information Centre  mic.pt	4'24"	El. Gtr, Accordeon and Live Electronics.	1994

Toral, Rafael  (b. 1967)  Portugal	<i>Sand Precision</i>	Portuguese Music Information Centre  mic.pt	Not avail- able	Electric Guitar, Bass Guitar and Prepared Acoustic Guitar	1990
Toral, Rafael  (b. 1967)  Portugal	<i>Harmonic Series</i>	Portuguese Music Information Centre  mic.pt	45'	El. Gtr and Live Electronics.	2003
Toral, Rafael  (b. 1967)  Portugal	<i>Skyrocket</i>	Portuguese Music Information Centre  mic.pt	4'47"	El. Gtr, Violin and Live Electronics.	1994
Toral, Rafael  (b. 1967)  Portugal	<i>Concorde</i>	Portuguese Music Information Centre  mic.pt	13'47 "	El. Gtr, Gtr and Live Electronics.	1995
Toral, Rafael  (b. 1967)  Portugal	<i>Aardvark</i>	Portuguese Music Information Centre  mic.pt	13'46 "	El. Gtr, Pno and Live Electronics.	1995
Toral, Rafael  (b. 1967)  Portugal	<i>Blackbird</i>	Portuguese Music Information Centre  mic.pt	8'05"	El. Gtr, Accordeon and Live Electronics.	1995

Tüür, Erkki-Sven (b. 1959) Estonia	<i>Architectonics</i>	Estonian Music Centre emic.ee/?lang=eng	12'	El. Gtr, Amplified Piano.	1991
Tüür, Erkki-Sven (b. 1959) Estonia	Symphony No. 5	Estonian Music Centre emic.ee/?lang=eng	37'	Symphony Orchestra, Big Band and El. Gtr.	2004
Tüür, Erkki-Sven (b. 1959) Estonia	<i>Town Council Custom</i>	Estonian Music Centre emic.ee/?lang=eng	7'30"	Mixed Choir, Early Music ensemble, El. Gtr, Chamber Orchestra.	1982 - 2004
Tüür, Erkki-Sven (b. 1959) Estonia	<i>The Tropic of Capricorn</i>	Estonian Music Centre emic.ee/?lang=eng	15'	Fl, Cl, Vibraphone, Vln, El. Gtr (2 <sup>nd</sup> El. Gtr ad libitum), MIDI Electronics.	1991
Vähi, Peeter (b. 1955) Estonia	<i>Forty Two</i>	Estonian Music Centre emic.ee/?lang=eng	Not avail- able	El. Gtr, Organ and Chamber Orchestra.	1997

Van Hove, Luc (b. 1957) Belgium	<i>Stacked Time: Concerto for Electric Guitar Op. 26</i>	Netherlands New Music Centre matrix-new-music.be/en	Not avail- able	El. Gtr, Orchestra.	1990
Varah, Sean (b. 1968) USA, lives in Canada	<i>Cygnificant Other</i>	Canadian Music Centre musiccentre.ca	9'02"	For Fl, Ob, Acoustic Gtr, El. Gtr, Vln and Vlc.	1996
Veretti, Antonio (1900- 1978) Italy	<i>Elegie in friulano</i>	Casa Ricordi ricordi.it	12'	Canto, Vln, Cl, El. Gtr.	1964
Victory, Gerard (1921- 1995) Ireland	<i>Chanson Rose</i>	Contemporary Music Centre Ireland cmc.ie	Not avail- able	El. Gtr (solo), 2120 1330, 2 Perc, Pno, Str.	1971
Vierk, Louis, V. (b. 1951) USA	<i>Go Guitars.</i>	Frog Peak Music frogpeak.org	Not avail- able	5 El. Gtr.	Not avail- able
Vierk, Louis, V. (b. 1951) USA	<i>Io.</i>	Frog Peak Music frogpeak.org	Not avail- able	Amplified Fl, Amplified Marimba, El. Gtr.	Not avail- able

Vierk, Louis, V.  (b. 1951)  USA	<i>Red Shift</i>	Frog Peak Music  frogpeak.org	Not avail- able	Vlc, El. Gtr, Perc, Synthesizer.	Not avail- able
Vilén, Asko  (b. 1946)  Finland	<i>In Time! What Time?</i>	Finnish Music Information Centre  fimic.fi	Not avail- able	Suite in 6 parts Vln, Accordion, El. Gtr, Pno and El. Bass.	1999
Virtaperko, Olli  (b. 1973)  Finland	<i>Cantatori sauna finlandese</i>	Finnish Music Information Centre  fimic.fi	5'	Fl, Cl, Bcl, S. Sax, A. Sax, B. Sax, 2 Tpt (including Flugelhorn), 2 Tbn, 2 Vln, Vla, Vlc, El. Gtr, Vibraphone, Accordion, Dbl Bass, Drums.	1998 rev 2003
Voegelin, Fritz  (b. 1943)  Switzerlan d	<i>Formzustände</i>	Editions BIM  editions-bim.ch/	25'	El. Gtr, English Horn.	1995

Weaver, Carol Ann (b. 1948) USA, lives in Canada	<i>Fourteen women: Quatorze femmes</i>	Canadian Music Centre musiccentre.ca	20'	Cl, Bsn, Fl, A. Sax, T. Sax, B. Sax, Tpt, Tbn, Amplified Vln, Amplified Vlc, El. Gtr, El. Bass, Pno. (Synthesizer), Percussion, Drums.	1990
Weaver, Carol Ann (b. 1948) USA, lives in Canada	<i>I Have Been a Traveller</i>	Canadian Music Centre musiccentre.ca	38'	Mezzo-Soprano, El. Gtr, Dbl Bass and Pno. (Instrumentalists also play Ocarina, marimba and Hand Drums).	1996
Weinstange, Sasha  Dates and nationality not available	<i>Hanukah suite: Medley of traditional Hanukah melodies</i>	Canadian Music Centre musiccentre.ca	8'	For Orchestra with El. Gtr and Drum kit.	2001
White, Frances (b. 1960) USA	<i>Winter Aconites</i>	American Music Centre amc.net	15'	Cl, 1 Vibraphone, 1 Pno, 1 Vlc, 1 Dbl Bass, 1 El. Gtr, 1 Pre-recorded sound.	1993
Whyms, Kevin (b. 1971) Ireland	<i>A Short Air for a Strange Ensemble</i>	Contemporary Music Centre Ireland cmc.ie	2'	Ob, Bn, Acoustic Gtr, El. Gtr [with vibrato arm], Vla, Vlc, Db.	2005

Wiegold, Peter  (b. 1949)  UK	<i>The Circle of Forms</i>	British Music Information Centre  bmic.co.uk	18'	El. Gtr, Db.	1972
Wilson, James  (1922– 2005)  Ireland	<i>The Temptation of St Anthony</i>	Contemporary Music Centre Ireland  cmc.ie	10'	Fl, Vln, El. Db, El. Gtr, Acoustic Gtr, 2 Perc, Pno, the works exists in two version with an alternate instrumentation :  Vln, El. Db El. Gtr, Acoustic Gtr, 2 Perc, Pno.	1985
Wimberger , Gerhard  (b. 1923)  Austria	<i>La Battaglia (Stage work)</i>	Schott  schott-music.com	90'	El. Gtr, SATB, Orchestra, Perc.	1959 – 1960
Wolff, Christian  (b. 1934)  USA	<i>Quartet for Frederic, Larry, Michael and Robyn</i>	Edition Peters  edition-peters.com	19'	El. Gtr, Pno, B. Cl, Perc.	2005 – 2007
Wolff, Christian  (b. 1934)  USA	<i>Another Possibility</i>	Edition Peters  edition-peters.com	9'	El. Gtr.	Not avail- able

Wolff, Christian (b. 1934) USA	<i>Rukus</i>	Edition Peters edition-peters.com	14'	El. Gtr, T. Sax, Db.	1990 – 1991
Wolff, Christian (b. 1934) USA	<i>Basel</i>	Edition Peters edition-peters.com	25'	A. Sax, El. Gtr, Tbn, Pno, Vlc, + additional players (free instrumentation ).	2007
Zagni, Ivan (b. 1942) UK Lives in New Zealand	Seven Pieces for Electric Guitar	New Zealand Music Centre sounz.org.nz	14'	El. Gtr.	1980
Zagni, Ivan	<i>Mao Fantasies</i>	New Zealand Music Centre sounz.org.nz	12'	El. Gtr.	1988
Zagni, Ivan	<i>Who's There</i>	New Zealand Music Centre sounz.org.nz	8'	El. Gtr, Cl.	1983
Zagni, Ivan	<i>Iris Moana</i>	New Zealand Music Centre sounz.org.nz	17'	El. Gtr.	1986
Zagni, Ivan	<i>Weather Patterns</i>	New Zealand Music Centre sounz.org.nz	20'	El. Gtr.	1986



Zagni, Ivan	<i>Punch and Judy</i>	New Zealand Music Centre sounz.org.nz	4'	El. Gtr, Cl.	1985
Zagni, Ivan	<i>Guava</i>	New Zealand Music Centre sounz.org.nz	4'	El. Gtr, Cl.	1983
Zagni, Ivan and Scholes, Peter	<i>Formations</i>	New Zealand Music Centre sounz.org.nz	12'	El. Gtr, Cl.	1983
Zagni, Ivan UK Lives in New Zealand (b. 1942)	<i>Mr Granite</i>	New Zealand Music Centre sounz.org.nz	8'	El. Gtr, Cl.	1984
Zagni, Ivan	<i>Four Structures</i>	New Zealand Music Centre sounz.org.nz		El. Gtr, Drum Machine, Digital Delay.	1987
Zagni, Ivan	<i>Glances</i>	New Zealand Music Centre sounz.org.nz	15'	El. Gtr, Cl, Pno, Perc.	1985
Zimmermann, Bern Alois (1918– 1970) Germany	<i>Metamorphose</i>	Schott schott-music.com	25'	El. Gtr, Orchestra.	1954

Zingaro, Carlos (b. 1948) Portugal	<i>Jubanzi Iznabuj</i>  ( <i>Musical Theatre</i> )	Portuguese Music Information Centre  mic.pt	20'	Voice, Fl, Perc, 3 Strings, Vln, Gtr and El. Gtr.	1972
Zingaro, Carlos (b. 1948) Portugal	<i>Yi Nié</i>	Portuguese Music Information Centre  mic.pt	60'	Voice, Vln, El. Gtr, Perc, and Live Electronics.	1992 – 1994