

**MUSIC AND HEALING:
PROGRESS TOWARDS ELYSIUM**

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Abstract

Music and Healing: Progress towards Elysium

This dissertation explores some of the many roles music, as a healing and nurturing art, plays in support of health and wellness. The fundamental question is “how does music nurture, revive, animate, and inspire us to lead healthier and richer lives?” Historical and modern sources, ranging from ancient philosophical works to reports of laboratory-based investigations, suggests that music is a remarkably positive and therapeutic element in the development of happier, healthier individuals, and well-adjusted societies.

This study is the outcome of three deeply personal impulses: a) the experience of one who has personally benefited from music as a healing balm; b) the performer's desire to better understand the positive reactions, both emotional and physical, of audiences to specific musical selections and genres; and c) growing evidence that society is weakened and dulled (“nor can foot feel, being shod”) by the loss of the collective experience of live music due to the proliferation of digital technologies that facilitate access to a complexity of recorded music choices. There is compelling scientific documentation that experience listening to and creating live music when very young is especially beneficial. If the “positive seeds” of music are not planted in youth, the continued disintegration of the long-standing cultural musical institutions that serve a vital role in maintaining the social fabric is threatened.

The dissertation documents the author's own response to the diminution of opportunities for participation in live music: the establishment of Euterpe, a non-profit charitable organization that presents live interactive classical and jazz performance programs for children in the public school system. The work is captured and analyzed in several ways: video recordings; art work produced by the children during Euterpe programs, and analysis extracted from previously published Qualitative Research Studies which were designed by leading scientific researchers in the field.

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Glossary of Specialized Terms

Dissonance/Consonance (Musical)

For my research a broad definition of dissonance is more easily conceived if consonance is seen as proceeding from nature and the resulting series of overtone pitches constituent with the natural laws of the vibrating bodies in physics. The western system of music has a tonal centre which provides a sonic home for the listener. Scientists have discovered that the natural born musical appetite of humans is consonant music, that it has a healing effect for the listener. For example, human babies are predisposed to it and are inwardly and outwardly calmed by consonant lullabies.

Happy (of individuals and society)

“Happy” as defined in the *Oxford English Dictionary*: “Feeling or showing a deep sense of pleasure or contentment, esp. arising from satisfaction with one's circumstances or condition; (also) marked by or expressive of such a feeling... Esp. of a group or community: exhibiting harmony or cooperation; marked by a pleasant sense of harmony and mutual goodwill.” See also Thompson, *Music in the Social and Behavioral Sciences*, pp. 1014-16; MacDonald, Kreutz, and Mitchell, *Music, Health and Wellbeing*, chapters 6, 8.

Health (of individuals and society)

The principal definition of “health” in the Oxford English Dictionary, “soundness of body; that condition in which its functions are duly and efficiently discharged,” focuses on the physical. There is however, a further definition: “Spiritual, moral, or mental soundness or well-being; Salvation.” Examples given for this sense date back to 1000 CE, and the dictionary classes this usage of the word as “archaic.” Yet it is the broader understanding of “health,” the spiritual and mental as well as physical that has again become current in recent decades. It is in this broader sense that the dissertation examines the role of music as a healing agent from the perspective of the physical, psychological and spiritual, as well as in academic and social learning.

Holistic

This term is used in both senses given in the *Oxford English Dictionary*: “*Philosophy* Characterized by the belief that the parts of something are intimately interconnected and explicable only by reference to the whole. *Medicine* Characterized by the treatment of the whole person, taking into account mental and social factors, rather than just the symptoms of a disease.”

Music Therapy

The profession of Music Therapy is widespread in psychiatric centres and institutions, hospitals and care facilities of all types as well as in schools for children with special challenges. Music Therapy is recognized as an established academic and

professional discipline. The profession of Music Therapy focuses on healing people when they are already afflicted with a medically defined condition or state of being whether from birth or in later life. Music Therapy “involves the creating of special conditions where musicking can happen for people who cannot create the conditions on their own, whether this is due to physical, cognitive, or emotional reasons.” Music Therapy has also been defined as “a systemic process of intervention wherein the therapist helps the client to achieve health using musical experiences and the relationships that develop through them as dynamic forces of change.” Music Therapy is distinguished from other practices involving music in its use of therapeutic processing of assessment, treatment and evaluation; and the range of musical experiences offered to the patient; and the relationship with the patient that evolves through the music.

Quality Music (including Classical Music and Jazz)

The music I focus on in this paper is Western tonal music and the interrelated genres of classical, jazz and related popular styles. The “quality” music under this encompassing umbrella is highly melodic, consonant (see definition of consonance in this glossary) and has a tonal centre. Classical music includes repertoire under the broader category of the term classical, not just music from the baroque and classical eras (late 17th to early 19th centuries), although music from those eras is included. Jazz originated in the United States early in the twentieth century and has grown in geographical scope and diversity of styles. These include ragtime (considered to be the grandfather of jazz), Tin Pan Alley standards, including music by George Gershwin, Cole Porter, Richard Rogers

et al.; classics by pops composers such as Leroy Anderson; Latin music of Astor Piazzolla, Egberto Gismonti; and others. The wide-ranging diverse musical styles and forms referred to as “quality” music in this dissertation have proven, based on my experience and research, to provide nurturing, liberating and other positive and therapeutic benefits for the listener on multiple levels.

Self-esteem

The basic definition given in the *Oxford English Dictionary*, “[f]avourable appreciation or opinion of oneself,” is elaborated by one of the examples of historical usage: “1667 Milton *Paradise Lost* viii. 572 Oft times nothing profits more Then self-esteem, grounded on just and right Well manag'd.” See also the discussion in Thompson, *Music in the Social and Behavioral Sciences*, pp. 994-96.

Well-adjusted (of individuals and of society)

The second definition in the *Oxford English Dictionary*, “[m]entally and emotionally stable; (now) *spec.* fully adapted psychologically and behaviourally to one's (social) environment,” is well illustrated by two examples of usage: “1809 *Monthly Rev.* July 607/2 That happily arranged, and well-adjusted mind, which is not easily thrown into disorder by the external agitations of life, in every scene, and upon all occasions, gives an incalculable superiority and advantage...” and “1940 R. S. Woodworth *Psychol.* (ed. 12) xviii. 590 If an individual is participating intelligently and wholeheartedly in

what is going on in his environment, we have no hesitation in calling him well adjusted.”

See also the entries for “happy” and “well-being.”

Well-being (of individuals and of society)

The *Oxford English Dictionary* definition, “[w]ith reference to a person or community: the state of being healthy, happy, or prosperous; physical, psychological, or moral welfare,” includes an excellent example of historical usage that captures the link between the well-being of individuals and of society: “1646 J. Benbrigge *Vsvra Accommodata* 8 The publicke-Weale wherein our owne Being, and Well-being are wrapped up.” See also the entry for “health.”

Introduction

This dissertation explores the role that music plays in support of health, healing, wellness and well-being. The principal definition of “health” in the *Oxford English Dictionary*, “soundness of body; that condition in which its functions are duly and efficiently discharged,” focuses on the physical. There is however, a further definition: “Spiritual, moral, or mental soundness or well-being; Salvation.” Examples given for this sense date back to 1000 CE, and the dictionary classes this usage of the word as “archaic.” Yet it is the broader understanding of “health,” the spiritual and mental as well as physical that has again become current in recent decades.¹ It is in this broader sense that the dissertation examines the role of music as a healing agent from the perspective of the physical, psychological and spiritual, as well as in academic and social learning. Research suggests that music is a positive element in the development of happier, healthier individuals and well-adjusted societies.² The effect of early exposure of children to music in various scenarios including live concerts is a particular focus for the work.

As a scholar/practitioner with an interest in the healing powers attributed to music, my investigations will begin with an historical perspective that seeks to inform and enlighten contemporary perspectives. The thrust of this research is to investigate

1. For a fuller discussion of this broader meaning of “health” and related terms, the sense in which they are used in this dissertation, see MacDonald, Kreutz, and Mitchell, *Music, Health and Wellbeing*, pp. 6-7.

2. See entry for “Happy” in the Glossary of Specialized Terms. For discussion of the social role of music see Thompson, *Music in the Social and Behavioral Sciences*, pp. 1014-16; MacDonald, Kreutz, and Mitchell, chapters 6, 8.

concepts of the use of music as a remedy for ill or, as the anonymous Medieval poet states, a “bote of bale.”³ The research seeks to reveal how concepts and procedures have changed or remained constant in different contexts over many centuries. Key ideas and procedures, articulated in historical documents and creative products of an artistic nature (poetry, songs, prose, folk idioms, etc.) will be considered. Evidence indicates the power of music as a mood altering method but the “normality” of prescribing music as a healing treatment for any number of physical, mental, and emotional ailments has waned over past centuries. This tendency to ignore the healing aspects of music now appears to be reversing.⁴ Interdisciplinary source materials including ancient and modern philosophy, anthropology, musicology, and the science of the brain will be considered. This is not a study in the health sciences, music therapy or psychology although aspects of these disciplines are relevant.

The dissertation will also document and analyze the field work of Euterpe, a not-for-profit charitable interactive performance organization that seeks to bring the benefits of music to children by presenting live music events in schools. The work will be captured in several ways: video recordings; art work review, and analysis extracted from the published Qualitative Descriptive Research Studies, designed with the help of leading scientific researchers in the field.

3. Roughly translated, “succour from sorrow,” Anonymous, “Piers Ploughman,” B.iv.92, Oakden and Innes, *Alliterative Poetry in Middle English*, p. 268.

4. MacDonald, Kreutz and Mitchell, pp. 3-10. An important development was the opening of the McMaster Institute for Music and the Mind (MIMM), at McMaster University, Hamilton, ON, on 27 September 2014, at which the author performed with Ensemble Vivant. McMaster Medical School is holding an inaugural Medical Humanities conference, “‘A Palpable Thrill’: An Introduction to Medical Humanities” on 6-7 May 2016, at which the author made an invited presentation.

Assumptions, Scope, and Limitations

My credo embraces the holistic philosophy of the interconnectedness of the mind, body and spirit. I believe that listening to quality music, music-making, and musical training can be nurturing and healing and can provide many other benefits to the individual and to society over-all. My belief in the power of music as a preventative, and for recuperation, is rooted in my personal experience of benefit from quality music while enduring enormous strife throughout my childhood. My belief is also rooted in some thirty years' experience as a concert performer, in Canada and internationally for diverse audiences of all ages, in regular concert performances, as well as programs specifically for children, seniors, and terminally ill patients in care facilities. I have recognized some of the benefits by audience members through their response during performances, through the emotional comments shared with me by audience members following concerts, and their subsequent unsolicited written testimonials.⁵

The music I focus on in this dissertation is Western tonal music in the interrelated genres of classical, jazz, and related popular styles. The “quality” music under this encompassing umbrella is highly melodic, consonant, and has a tonal centre. Classical music includes repertoire under the broader category of the term classical, not just music from the classical era (the seventeenth and eighteen centuries), although music from that era is included. Some of the styles in the jazz genre include ragtime (considered to be the

5. A few examples of unsolicited written testimonials from a variety of audience members over the years can be referenced by visiting www.ensemblevivant.com (and view Testimonials). These testimonials express the *effect* the music-making had on these listeners during my performances.

grandfather of jazz), Tin Pan Alley standards, including music by George Gershwin, Cole Porter, Richard Rogers, et al.; classics by pops composers such as Leroy Anderson; Latin music of Astor Piazzolla, Egberto Gismonti; and others.

There is widespread documentation from the scientific community about the importance of quality music for the young developing brain, and the multiple benefits that can last a life-time. These opportunities are known to enhance academic learning, social skills, an individual's sense of purpose and much more. Nevertheless, the vast majority of children in our public school system are not exposed to live performances of classical and jazz musical forms or to musical training and music-making opportunities. It was for this reason I founded the charitable organization Euterpe, to provide interactive music performances, particularly for children, but also any one disadvantaged by lack of access to live, quality music.

The perspective I bring to the research reported in this dissertation is that of a musical performer, with experience in wide ranging aspects of the profession, including leadership of a chamber ensemble, sound and visual recording, development of musical programs, and research in repertoire. It is from this experience that I treat diverse sources that include poetry, philosophy, and visual art from ancient times to the present, and studies in anthropology, evolution, neuro-science, and music therapy.

Although this dissertation deals with genres of Western tonal music that have benefited me and been the focus of my career, this does not exclude benefits of other forms of music that are not treated here.

Importance of Subject

The research grew out of three impulses: the experience of one who has personally benefited from music as a healing balm; the performer's desire to better understand the positive reactions of audiences, both emotional and physical; and the danger that much of society today is losing the collective experience of live music.⁶ With the proliferation of technology the most common access to music is now through headphones connected to digital devices. Yet there is compelling scientific documentation which has demonstrated that active participation in listening to and making live music has profound educational and health benefits, and that the earlier a child is given the opportunity to engage in these opportunities, the better.⁷ These opportunities foster a love of quality music in an individual and allow for life long enjoyment and enrichment whether at an amateur or professional level. If the seeds of music are not planted in our youth, we threaten the continued disintegration of the long-standing cultural musical institutions that are such a vital part of our society's fabric. At one time, most children were exposed to classical, jazz and related popular styles and to music-making in public school programs, but over recent decades there have been continual cutbacks in these programs. Today, music barely survives in the public school curriculum due to inadequate funding, and many children are taught by teachers who

6. For evocative statements see, for example, Stewart, *Music, Power, Harmony*, pp. 19, 23, 44; Storr, *Music and the Mind*, p. x.

7. For good overviews see Thompson, *Music in the Social and Behavioral Sciences*, pp. 8-10, 533-36; MacDonald, Kreutz, and Mitchell, chapters 1-2.

have no music background or training whatsoever.⁸ This was one of the principal reasons why I founded the organization Euterpe. My work with Euterpe was, in turn, the impetus for pursuing doctoral level research.

The initial strategy for the dissertation had two tracks. The first was to discover through reading in various disciplines (initially identified in my course work, and subsequently broadened) the views of writers from ancient times to the present about how and why music is beneficial to the well-being of individuals and societies. The second track was to test those views on the basis of feedback I have received from audience members, including those who participated in interactive music programs delivered by Euterpe. There were two major developments in the course of this work. I soon found that the philosophical, poetic, and scientific readings resonated strongly with my own life experience, which brought further systematic thought and writing on those experiences and how they relate to perspectives and findings in the literature. Meanwhile, consultation with the McMaster Institute for Music and the Mind opened for me the large body of literature on laboratory based research into the role of music in human intellectual and social development. The institute also provided invaluable assistance with more systematic collection of responses from the public school children who participated in Euterpe musical programs.

8. Storr, p. x; "Majority of Music Teachers Lack Musical Background: Survey," *Toronto Star*, 4 November 2010.

Working Hypothesis

The inquiry grew out of personal experience as a performer, in trying to understand the positive, emotional reactions of audiences. Was there something more than just the surface musical level of notes and rhythms—something deeper that speaks to people on a different level? My personal discovery of a large and varied literature, dating back to ancient philosophers and poets seems to reinforce the idea that music creates positive effects on human development of both individuals and societies. In our own times, there are scientific investigations, using such techniques as brain imaging, to demonstrate those positive effects.

The central idea that inspires the present project is that all humans have the right to be exposed to good quality music from birth and to continue to be nurtured by good quality music at all ages. The same music that is calming and healing psychically, physically and spiritually when one is ill or when one is old and dying is just as effective all through one's life. Thus, this dissertation thus will investigate the importance of young children being exposed to live, high quality performances of classical, jazz and related popular styles. The research will also explore possibilities for various types of activities for interaction between the performers and audience to enhance the beneficial effects.

Method and Structure

The exercise of research and writing has brought the realization that many of the key ideas that inspired the work and framed the key questions gradually surfaced and

then took shape during a considerable voyage from the discovery of music in my youth through my formal education and then the period of a career as a performer. Chapter One, “Situation of Self: Professional Career History and Personal Awakening,” endeavours to trace the experiences that gave rise to the questions pursued in the program of research and elaborated those questions in the course of the work.

Early reading brought two exciting discoveries that opened the main lines of inquiry. The first of these was the fact that some of the most ancient writers in civilization celebrated, and philosophers (the earliest scholars) studied the role of music in human well-being. The second was that since the mid-nineteenth century scholars have been revisiting insights by the ancients, and these have become the focus of modern research in several disciplines into the benefits of music for the health and development of individuals and society more generally. This work in the literature, which includes classical studies, musicology, anthropology, evolutionary studies, and neuro-science, is the basis for chapters two through five. These are organized chronologically, moving from the earliest writings on music through to current research. The final chapter returns to my own work as a performer engaged in the development and delivery of musical programs to those who have little opportunity for such exposure, especially children. The experiences reported in the final chapter, like those in the first chapter, informed the work in the literature, and those discoveries also influenced my ongoing development of musical programs designed to bring the benefits of music to those who had little or no opportunity to participate in live performances of quality music.

Thought about music in ancient civilizations, particularly by Greek philosophers, and the rediscovery of this learning in the nineteenth and twentieth centuries is the subject of Chapter Two, “Origins and Lineage.” This chapter presents a selection of sources revealing the “roots” of various concepts and theories associated with “music and healing.” Examples also include various poetic excerpts which are more contemporary in creation but whose content references and resonates with a “lost” or disconnected tradition. Indeed one of the major questions is to what extent do the ancient authors articulate a tradition that reflects the reality of curative practices rather than employing the content as metaphors for a life-affirming process which existed in the spiritual, emotional, or aesthetic realms. Emerging from this idea for contemporary society is an overriding issue that seems to point to cultural loss and a broken lineage.

Music’s part in human experience extends beyond the emotional and physical effects now being investigated by scientists and the caregiving professions into the realm of mysticism and magic, the subject of Chapter Three, “Into the Mystic: The Essence of the Ephemeral ‘Magic’ in Music.” Thinkers and artists from ancient times to the present have explored the bond of music between human kind, the earthly environment, and the heavens above. The communicative power of music was not easily explained or understood so descriptive terms such as magical, mystical, or other worldly became common. Although mysticism and magic are not the focus of the present work, expressions since civilization’s beginnings of the power of these musical bonds must be addressed as they give context to the treatment in other chapters on the palpable—and today measurable—effects of music on people and societies.

Chapter Four, “Music in Homo Sapiens,” discusses the struggle of ideas in the past five centuries over the relationship between music and the development of humankind. Literature arising from the “scientific revolution,” originating in the work of the French mathematician and philosopher René Descartes (1596–1650) and continuing to the present, sharply distinguished the spiritual from the physical. These writers thus treated—and in important instances still treat—music, and the arts more generally, as the product of culture, something quite separate from the physical world and the development of human intellect.

The clear distinction between the physical and what had been termed ephemeral was challenged in the mid nineteenth century by a further scientific revolution, the theory of the evolution of species formulated by Charles Darwin (1809-1882). Key to the evolution of homo sapiens was the development of the very large brain. This was the species’ most powerful tool for survival, not least because it was instrumental in communication and cooperation, the foundation of society. Homo sapiens has thrived through the growth of cohesive family and progressively larger social groups who work together to nurture the young and provide the necessities of life for all members. In this way Darwin highlighted the importance of culture in the development of the brain, and suggested music—dance and chanting—was central not only to the growth of social cohesion, but also the capacity for speech.

Very significantly, theories of evolution confirmed insights by ancient Greek philosophers concerning the central place of music, including dance, in the education of youth, and for personal health and emotional well-being of people of all ages. Indeed,

these thinkers argued that music was essential to wholesome social relationships, and thus strong and productive community life. Those insights had in fact been revived in musicological studies from the eighteenth century (and continuing to the present) that also demonstrated that music played a similar role in other ancient cultures, and in tribal societies through to the modern era.

The idea that music is central to the development of the brain has stimulated a great deal of work in the recent decades in three broad areas, and these literatures are treated in Chapter Five, “Emotion, Movement, and Therapy.” One of these is cultural analysis that focuses on the different and changing forms and styles of music in relation to mental and societal development. Another is scientific analysis in which researchers use modern instrumentation to map and measure the response of the brain to music. A third might be described as therapeutic, in which researchers examine the impact of music on the stressors and other factors that affect mental and physical health.

Chapter Six, “The Vision in Action: Euterpe,” documents how I personally am contributing to the subject, including as an active concert performer as well as through the work with Euterpe, the musical organization I founded for the purpose of ensuring that as many young children, as well as others, are exposed to live, high caliber performances of classical, jazz and related popular styles. This chapter, together with material presented in the appendices, and CDs and a DVD presented separately, will show how the ideas treated in the literature review shaped the development of Euterpe and the inter-active performances it has presented to thousands of Toronto area school children. The joy and stimulation experienced by the children, both individually and in

their social bonding, is palpable at every inter-active performance. This dissertation captures and analyzes the benefits in several ways: video recording of a performance at one school presented in a DVD⁹; art work created by the young students during performances; together with the methods and results of qualitative descriptive research studies, designed with the help of leading scientific researchers in the field.

9. Available online: www.euterpemusicarts.com.

Chapter One. Situation of Self: Professional Career History and Personal Awakening

1.1 Overview of Chapter One

The subject of this dissertation grew out of my own life experience. Indeed, the exercise of research and writing has brought the realization that many of the key ideas that inspired the work and framed the key questions gradually surfaced and then took shape during a considerable voyage from the discovery of music as a safe place in my youth, through my formal academic education, and then over a long career as a performer. This chapter endeavours to trace the experiences that are the foundation of this work.

1.2 Early Days

My personal odyssey involves a steady and gradual awakening to the true nurturing and healing powers inherent in all music of high quality. While some might claim that great music or the music of genius master composers is “art,” the nature of my investigations does not hinge on the “musical masterpieces.” As the veracity of the power of the “sacred art”¹⁰ became ever more apparent in my personal life, I began to notice and search for evidence of this “capacity” affecting others. Eventually these personal observations which, in retrospect often seemed to be on a subconscious level, led me to

10. Franz von Schober, “An die Musik,” the inspiration for Franz Schubert’s song of the same name.

consider certain historical materials, multilateral personal life experiences, and empirical scientific data. Each of these offered proof in support of my credo and thesis that music functions as an element that generates a positive therapeutic process and serves as a remedy for much of what ails the human condition. This introductory section provides a filtered synopsis of my early life through my professional career development and sets the stage for a fuller understanding of the roots and flowering of my credo. In certain disciplines and methodologies such as anthropology and ethnography the issue of emic and etic is valid with respect to the “location” of the researcher. In this study, my personal geography is clearly centered at an inside location while at certain times there is an obvious move to an outside location.

For a variety of unfortunate circumstances, my childhood years were fraught with family strife that created personal challenges which seemed insurmountable. My mother managed to acquire an old upright piano for the house when I was in grade school and music became the single thing that provided a safe haven—a personal “sonic space” radiating solace and healing which ultimately nurtured me and enabled me to “surface.” Lessons and practice time were very sporadic but somehow a musical personality emerged. Music seemed to “carry me” as I floated on its tones and created performances that were consistently described as expressive, sensitive and heart-felt. My musical world was to expand when I was invited to join the Northlandia Concert Band when in junior high school. This experience proved to have a profound effect in my life, including from the standpoint of resulting friendships, some of which are still significant in my life to this day. I should note that upon entering junior high I was selected to play violin as part

of the junior high school orchestra, however, my home situation made this impossible. Having the opportunity to play the violin would of course have been wonderful, but it was not meant to be. I remain grateful for the opportunity to play clarinet in the concert band led by Charles Mills, a gifted musician and teacher, who also conducted the Northlandia Concert Band. My years in Northlandia gave me a positive community experience that took me outside of a very dark and debilitating home environment. My band experience catapulted me into a different orbit and changed the course of my life. I had a feeling of belonging and this musical world became “family” to me. I believe that this experience laid the ground work for what became my long career in chamber music, continuing the interactive music-making experience with wonderful colleagues. In addition to my good fortune of playing in the band, I was to eventually receive a small amount of advanced classical piano training which ultimately resulted in the attainment of formal diplomas and degrees from the Royal Conservatory of Music in Toronto (Associate of the Royal Conservatory of Music (ARCT) in Piano Performance), the Faculty of Music, University of Toronto (Honours Bachelor of Music Degree in Piano Performance), and the University of Michigan, Ann Arbor (Masters of Music Degree in Piano Performance). Later in my career, the attraction of pursuing doctoral studies may have been subconsciously related to the need to better understand the extra-musical aspects of my career and thus facilitated further research into the music and health theme which has shadowed me throughout my life.

1.3 Establishment of Performance Career

While still studying as an undergraduate in university, invitations to perform in commercial settings and venues (conferences, restaurants, hotel dining rooms, banquet halls, etc.) became more and more common. The financial benefits of playing piano professionally in elegant settings with generally appreciative audiences was attractive both musically and financially. The Courtyard Café in the Windsor Arms Hotel (“the in-place” at the time) engaged me fairly regularly over a period of a half-dozen years. Patrons expressed their appreciation, often stating how wonderful and satisfying my playing made them *feel*. Many would offer “thank you” gifts—drinks, meals, desserts (the Café was famous for spectacular desserts) and aside from being pleased that I was starting to build a professional career, I felt personal satisfaction that my performances were bringing joy to people. It began to dawn on me that the music was an agent that touched people in a very unique manner that went far beyond any aspect of entertainment or casual amusement. In those early days, it was already apparent that the music was affecting certain people in significantly positive ways—touching their hearts and souls. Individuals from audiences, festival adjudicators, examiners, music critics and peers always commented on my musicality and the rich communicative qualities of my playing. Sometimes people would speak of being “transported” to another place or time while others mentioned being in a “trance” or a “dream” while the music was sounding.

At first I perceived these remarks simply as compliments and naturally these comments fed my artistic ego with positive effects in my confidence, professional development and career possibilities. Eventually my comprehension became much fuller

and deeper, with the awareness that I was unwittingly sharing an enormously important element, a therapeutic balm. The music came through me as if I were simply a “medium” with my education and nurtured talent enabling me to act as a sort of conduit which enabled a “flow” of content between the listener and the musical messages. It became more and more obvious to me that music positively impacts people. Music helps promote relaxation, intellectual health, emotional healing, and wellness in spiritual and physical ways. For me, this epiphany was foundational and has generated the most rewarding and meaningful realization and feeling—one which continues to return every time I share the gift of music with people through the medium of performance.

1.4 Professional Connections

My performances were noticed by many, including people who became important supporters. CKEY radio commentator Pete McGarvey (1928–2014), a classical music lover with a passion for J.S. Bach, was attracted to my musicality and the genre diversity of my repertoire (unusual for a classical pianist at that time) and arranged an interview on his radio show *About Town*. Not only was Pete a consistent promoter of my music, but from those early days a life-long friendship with him, his wife Eileen, and their family developed, a close friendship which continues since Pete’s passing in 2014.

Another extremely important relationship was with the artists’ relation personnel at Yamaha Canada Music Ltd. I was frequently invited to perform for Yamaha events, and as my career continued to grow, Yamaha provided sponsorship in the form of exceptional concert grand pianos for recordings and for concert tours and more. I’ll

always be grateful for the kindnesses and support extended to me by Rob Barg, who recently retired from Yamaha after a forty-two year career, with many of those years spent in the position of artist relations, and later as a senior vice president. Yamaha and Rob's support of Euterpe continues to this day. So too does the wonderful collaboration with recording engineer Ashley Clarke, who originally heard me performing at an event at Yamaha where he is a pro-audio specialist.

Other artists heard me perform at various events and aspects of my stylistically diverse repertoire were often the focus when they suggested new endeavours. One example includes the attention my performances of ragtime attracted, including several repeat invitations as a featured soloist at such festivals as the Scott Joplin Festival in Sedalia Missouri. Esteemed composers and performers of ragtime, including William Albright (1944–1998) who had heard me perform in Ann Arbor Michigan when I was still a student, wanted me to perform their music and to collaborate in performance with them.

The creation of Trio Vivant¹¹ to perform at various functions opened additional professional career opportunities. The name reflects the “vivant” (lively) qualities and the collective spirit of the colourful and imaginative repertoire selected to reflect the group's membership. Evenings and afternoons were soon occupied with performances of an eclectic mix of beautiful music in various upscale settings including private engagements for corporations, parties, charities, dignitaries, and heads of state, including the prime minister of Canada and Queen Elizabeth II. Repertoire selections segued between Bach

11. www.ensemblevivant.com.

and Chopin, Joplin and Gershwin, tangos, waltzes, popular show tunes, standards, and more, carefully chosen to reach out to broad audience constituencies. The regularity of professional concert performances throughout North America and Europe continued to increase and establish my professional performance career. National and international concerts led to an initial recording contract which thus facilitated frequent radio broadcasts.

1.5 Recording Focus

Julien Rice, President of Fanfare Records, who first heard me perform at the Courtyard Café, signed the trio. Our diverse repertoire inspired his idea for our debut recording, *Palm Court Pleasures*, which was selected by the Columbia Record Club, and our pioneering efforts in championing a diversity of genres became recognized internationally. This compact disc featured a selection of compositions representative of the glamorous palm court era, ranging from baroque, romantic, and classical, to tango, ragtime, Tin Pan Alley, plus an original composition of mine. CBC's Bob Kerr, on his daily classical show *Off the Record*, referred to the group's interpretations and performances as "desert island favourites," while radio host Jurgen Gothe regularly featured Trio Vivant on his CBC Radio Show *Disc Drive*. To this day, the group receives frequent radio air-play nationally and internationally, including on the various National Public Radio (NPR) Stations throughout the United States. The Atlanta based recording company Pro Arte, picked up *Palm Court Pleasures* which led to *Palm Court Encores* and continued success. Jazz arranger and saxophonist Rick Wilkins who worked with

established Canadian artists such as Rob McConnell and the Boss Brass, Oscar Peterson, and Anne Murray, recognized our unique artistic ability to segue between styles and was keen to write for the trio. He described our performances as “so deeply sensitive yet virtuosic and enchanting” and of the “highest caliber chamber music-making.”

Christmas Tidings, featuring carols arranged by Wilkins, was produced in 1992 and still receives regular international air-play. Wilkins wrote dozens of arrangements over some twenty years, produced many recordings, and was inspired to compose an original three movement suite for the group, “Divertissement” (“I Circa 1910”; “II American Ballad”; “III Ragtime”). The first movement captures the mood of classical composition during the early 1900s. The second movement is reminiscent of music from the Gershwin era, while the third movement combines various aspects of ragtime since its inception in the late 1890s through to the present. The world premiere recording was included on *Audience Favourites*.

The classical music market began to suffer a down turn in the 1990s and many fine recording companies (e.g., Pro Arte) were forced to suspend operations. The trio’s repertoire expanded with the addition of varied instrumental configurations, and Ensemble Vivant was christened. Following Pro Arte’s closing, Ensemble Vivant was offered good distribution by recording companies such as IBS, Doremi, and Spy Records, which produced *The Romantics*, *Classical Potpourri*, *Chamber Suite* and *The Music of Leroy Anderson*. In 2008, the Opening Day Entertainment Group picked up Ensemble Vivant and repackaged the group’s entire back catalogue. The release of *Audience*

Favourites (2008) was followed by *Fêtes françaises* (2009), *Homage to Astor Piazzolla* (2011) and *Mysterium: Music from the Labyrinth* (2014).

1.6 Composition

Palm Court Pleasures includes my original composition “Sackville Street Ballad,” and this piece has also been featured in concerts with various orchestras. Composition was not a natural career choice, but from time to time over the years I have notated melodies, or motific ideas that became manifest during moments of inspiration. I regret not capturing all the many melodies that came to me “like an ever rolling stream” before they vanished “as a dream at break of day.”¹² Author and columnist George Jonas (1935–2016), required original music for his CBC Radio Drama Show, *The Scales of Justice* and commissioned me to compose the music for three seasons. It was an honour working with George, whose keen intelligence and fine character made the experience a joy. Another original, “Knollwood Place,” is included on *Classical Potpourri* and this was eventually also realized in video by New York videographer and film director Peter Rosen. Additional opportunities to compose developed, including material for CBC’s *Morningside Radio Drama*, but I was not naturally proactive in this area as my focus was performing and recording. In retrospect, it is clear that based on my natural gifts my professional path followed the more natural route.

The various pieces I have composed all evolved from musically inspired moments and situations typically connected to specific personalities who had entered my life

12. Isaac Watts (1674–1748), “Our God, Our Help.”

through music. Some of these people were to become life-long friends. Presented separately as part of the dissertation submission are three compact discs with musical examples of repertoire that I recorded over the years (solo, ensemble, and some originals). These examples represent some of the musical “catalysts” that have revealed the power to move people by enriching their lives and communicating lasting feelings of excitement as well as elements of joy and solace.

1.7 Expanding the Sonic Palette

Searching out and performing beautiful, yet unknown or obscure classical repertoire has always attracted me. I love bringing this music to life and introducing its power and charm to listeners so that individuals are able to communicate across the generations through music. This attitude has been consistent throughout a long career. The trio's original violinist, Marie Bérard discovered “Four Pieces for Piano, Violin and Cello” by French composer Charles-Marie Widor on a European release. A colleague who worked for the Library of Congress in Washington, D.C. procured the score through microfiche and we performed this charming suite on numerous occasions. When next performing in Paris, a visit to the Bibliothèque Nationale de France produced more of Widor’s music. Known mostly as a brilliant organist and prolific writer of organ music, I was delighted to learn the extent of music this interesting composer had written for various configurations of piano chamber music. Even the least known of his output speaks to people and the comments have been very positive.

The Romantics includes the North American premiere of Widor's "Four Pieces for Piano, Violin and Cello" while *Fêtes françaises* includes "Soirs d'Alsace," a work unearthed during research in Paris. This represents the North American premiere and possibly the world premiere recording of extremely worthy yet unknown music. Much of Widor's music had been buried due to restraints of his estate.

Chamber Suite features the rarely heard "Trio in C Minor" by Max Bruch; Felix Mendelssohn's "Sextet in D Major for piano and strings"; and "The Old Toronto Klezmer Suite" by the late Canadian composer Srul Irving Glick (1934-2002), which he wrote for the ensemble. The composer was present for the world premiere recording and remarked:

I couldn't be more moved. Ensemble Vivant's performance of the Old Toronto Klezmer Suite is rich with colour, imagination and deep soulful playing that reveals a profound understanding of this music. I was brought to tears by the tenderness and depth of pianist Catherine Wilson's playing, and it is a joy to hear Catherine paired with the incomparable Joel Quarrington on double bass, and violinist supreme, Marie Bérard. The entire quintet is outstanding—this is a world-class ensemble in every way.

The opportunity to record *The Music of Leroy Anderson* is one of many examples that demonstrate the range and depth of experience across diverse genres. Known as a master of the three-minute vignette, Leroy Anderson (1908–1975), created his own genre and produced numerous imaginative descriptive works of light orchestral music that continue to delight contemporary audiences. Some well-known titles by Anderson are: "Blue Tango," "Holiday for Strings," "Sleigh Ride," "Bugler's Holiday," "Fiddle Fiddle," "Jazz Pizzicato," and "The Syncopated Clock," among many others. He was one of many composers of non-classical music who was victimized by prevailing attitudes of

“classical snobbery” and his music was labeled as “not serious.” Despite many triumphs, Anderson was understandably distressed by that prevailing attitude in the classical music world. The topic of “elitism” in classical music is far too complex and extensive for further consideration in this dissertation, but acknowledgement of its negative impact is essential in understanding Anderson.

Rick Wilkins had suggested “Blue Tango” for *Classical Potpourri*, and arranged this piece for piano, violin and cello. Vermont resident Rolf Anderson, a son of the late Leroy Anderson, heard the recording on Gordon Sinclair’s CBC Radio Show *What’s New*.

I was used to hearing my father’s music as he originally wrote it for symphony orchestra. But this performance by Canadian pianist Catherine Wilson and her group Ensemble Vivant of a new arrangement of Blue Tango by Rick Wilkins was most unusual and very well done indeed! That my Father’s music was still being recorded was not news to me, but this was quite unique. Hearing this popular orchestral piece of 1952 in a small ensemble performance excited me as I imagined how my Father’s music could be brought to a new, larger audience with this fresh interpretation. I couldn’t wait to tell my family.

The Anderson family made contact and a long professional collaboration resulted. Peter Rosen had previously created the series of short videos of my work, including “Knollwood Place.” Rosen was approached by Mrs. Anderson to make a documentary of her husband’s life, however neither he nor the Anderson family knew of their mutual connection with me! Anderson’s “Piano Concerto” was to be included in this documentary and many fine pianists who performed this work were possible choices for this opportunity. A three-week window before the audition in New York City allowed me to learn the work before conductor Skitch Henderson made his choice of soloist. Having

worked closely with Anderson, Henderson was a veteran of Anderson's music and felt that my interpretation of this work captured the desired "feel" and "sentiment" intended by Anderson, combined with the necessary technical virtuosity. A couple of months later, a successful recording of the concerto with The Toronto Symphony Orchestra at Toronto's Massey Hall occurred. The third movement is now part of the PBS Documentary on the life of Leroy Anderson, *Once Upon a Sleigh Ride*. Mrs. Leroy Anderson was inspired to remark: "Catherine Wilson plays the Leroy Anderson Piano Concerto with brilliance, clarity and passion."

Skitch Henderson and his producer wanted the concerto to be recorded so that soloist and orchestra were not separated, as this sort of "canned" recorded sound was representative of earlier times. As successful as the performance was, I believe that from a listener's point of view the quality would have been much better if not recorded in this stylistically dated manner. However it remains a wonderful performance completed with only two "takes," and all while being filmed.

The serendipitous event that allowed Rolf Anderson to hear "Blue Tango" on CBC ultimately led to a two-CD compilation recording with many intimate piano solos and piano chamber settings. Rick Wilkins wrote twenty-four arrangements for this big project. The remaining additional arrangements on this recording were given to me by Mrs. Leroy Anderson, seven charts that were arranged for various piano chamber combinations, including piano, violin and cello by Anderson himself, "as if through some

sort of occult connection.”¹³

The Music of Leroy Anderson presents a unique combination of his delightful compositions and includes well-known favourites. A number of less familiar but equally delightful compositions are included. His work, “I Never Know When,” which comes from his only Broadway Musical *Goldilocks*, is one of the more unfamiliar of Anderson’s works which continually delights audiences. The recording of five of Anderson’s own arrangements for piano chamber ensemble represent the world premier release. The concerto recording resulted in a contract for the Main Stage Concert Series at Carnegie Hall, with the New York Pops under Maestro Skitch Henderson. In April 2005, I performed to a sold-out Carnegie Hall audience which included Mrs. Leroy Anderson and two sons, Rolf and Kurt.

Among many Latin stylings and genres that we champion are the *nuevo tangos* of the Argentinian composer Astor Piazzolla. Just hearing Piazzolla’s piece “Milonga for Three” somehow “demanded” that it be added to the repertoire. Lacking a published score, Wilkins “lifted” the music and created a stunning and hauntingly beautiful arrangement for piano, bass, cello and percussion. At the time, I held a teaching position at Wayne State University in Detroit, Michigan and met award-winning accordianist and bandoneonist Julien Labro. Steeped in Piazzolla’s music all his life, Julien was eager to arrange Piazzolla’s music, and another long and wonderful musical collaboration began.

13. Nat Worman “Canadian Trio (Ensemble Vivant) Brings the Sparkle and Beat of Leroy Anderson’s Genius to Montgomery, Vermont.”

The first piece Julien arranged was another of Piazzolla's compositions that the group yearned to embrace. The compelling "Fuga Y Misterio" has since become a signature piece and is recorded on *Homage to Astor Piazzolla*. The timing was appropriate as Wilkins was in the process of retiring after an illustrious career.

Labro's expertise in this genre is profound and has assisted our interpretations of Piazzolla's music in garnering accolades and respect in both classical and jazz worlds. Julien completed the remaining arrangements which are exclusive to Ensemble Vivant. He also adapted Piazzolla's work "Oblivion" for solo piano which was realized in an art film by the Toronto film maker/musician Robert Divito. The chance to perform this music in a film setting has proven to be an additional means of exposing this genre to youth, the vast majority of whom have never been exposed to this repertoire. Piazzolla has become quite popular among classical artists over the last several years and published arrangements of the music are now available.

1.8 Manifesting the Elusive Dream

Another important aspect of my performance experiences relates more specifically and directly to "music and health" research. This includes the numerous live, interactive, educational performance programs created by Euterpe for public school children and others. A philosophical rationale for planting the musical seeds among our youth is reviewed later in chapter five, "The Vision in Action." This has resonated with many, and numerous professionals have voluntarily contributed to broadening the scope and ways that Euterpe's artists can benefit people of all ages and walks of life. Included

among those professionals is the Canadian composer John Burke who has for years included among his compositional approaches music for walking the labyrinth.

Walking the labyrinth is an ancient practice. Burke writes: “In Jungian psychology, ‘the circumambulation of the Self,’ the alchemical path to individuation, is walked symbolically.”¹⁴ Burke wrote his piece “Mysterium” which he donated to Ensemble Vivant as his ensemble of choice. The world premiere for piano trio was included on *Audience Favourites*. This recording was also realized in a video by Robert Divito in 2014. Burke's vision was to write a much longer work which is not traditional concert music per se and which could be likened “to the sonic driving of shamamic drumming, which is not percussion music,” but “an auditory horse of a different colour, meant to ridden by the mind.”¹⁵ His work “Heiratikos” was the result of this vision, a 55 minute work which is included on the Ensemble Vivant 2014 release *Mysterium: Music from the Labyrinth*. The composer’s guiding principle with this piece is “that this music is internalized differently while walking than when passively ensconced in the concert hall ...,” this being the case “whether at the Chartres Cathedral labyrinth in France, a labyrinth of wilderness trails, a labyrinth of neighbourhood streets—or a virtual labyrinth of the mind ... walking to this music effects *a therapeutic experience*” (John Burke). Burke pays homage to Ensemble Vivant, writing: “The necessary catalyst is musicianship beyond ego. The profound depth of artistry and musicianship of pianist Catherine Wilson, and that of the extraordinary musicians with whom she collaborates in her group

14. Liner notes, Ensemble Vivant, *Mysterium, Music from the Labyrinth* (Toronto: Labyrinth Recordings, 2014).

15. Ibid.

Ensemble Vivant, perfectly embodies that. These wonderful artists establish an unerring connection to communicative source.”

There are three world premieres on this 2014 recording released by Labyrinth Recordings: a solo piano improvisation “Lungta,” realized with 18 chords that Burke created for extemporization; “Heiratikos”; plus the sextet version of “Mysterium,” the entire CD being bookended with two versions of this work. Toronto music critic Bill Watt wrote in his column “Bill Watt’s Worlds”:

Composed by Canadian composer John Burke, is a four-part orchestral work of damnably difficult pieces...intended to invoke and accompany contemplative states conducive to meditation. We’re prepared to recommend a listen if no other reason than to experience Ms Wilson’s pianistic skills and artistry especially on the wickedly difficult Heiratikos ... her touch never falters ... Brava! CODA: The piano played on Heiratikos is a Bosendorfer which is considered to be a king of pianos, and Ms Wilson plays it as one born to be its queen.

Music critic Roger Knox of *WholeNote Magazine* in Toronto wrote: “... precisions of sonority, dynamics and rhythm that Ensemble Vivant, led by pianist Catherine Wilson, fully deliver ... (Burke’s) intricate ensemble writing is performed magnificently ... a moving experience ... Wilson’s playing is evocative.”

Ensemble Vivant was indeed a pioneer among classical piano chamber ensembles. However, at the time when the group came onto the international concert and recording scene in the late 1980s, the classical music world was still not ready for the kind of genre-diversity that we were offering.

A classical group with such a repertoire was outside of the “elitist” mind-set, a mind-set that has always been polar-opposite to my philosophy about music-making and what quality music-making, no matter the genre, has to offer. At that time, the prevailing

attitude in the die-hard classical world was that a “serious” classical chamber ensemble would not mix classical with such genres as ragtime, Tin Pan Alley, Latin and other jazz persuasions, especially in concert or on a recording. At most, “serious” classical artists might throw a non-classical “bon bon” to the audience as an encore.

It is this “high-brow” thinking about what constitutes “serious” music that contributed to the shrinking of classical music audiences and the classical music market the world over. Lawrence Kramer suggests in his book *Why Classical Music Still Matters* that, “Classical music turns deadly when we venerate it.”¹⁶ Now classical concert presenters are desperately trying to think of ways to attract younger classical and jazz audiences. This is becoming harder and harder to do as the vast majority of our youth today are not exposed to classical and jazz music or to musical training.

Today, with classical audiences having shrunk so significantly, many classical artists are realizing the need to have more broadly based repertoire. Broadening of repertoire opens up audience markets and also sends the message to classical concert presenters that this type of programming, although outside of the traditional classical music programming edict, is an important development. One example is classical performers playing the music of the Argentine tango master Astor Piazzolla, notably the renowned cellist Yo Yo Ma. His performances helped significantly in bringing Piazzolla’s works to the classical music world, even though Piazzola’s unique music is very much jazz-based. Cultivating a true affinity for jazz and jazz-based genres is not an over-night accomplishment. As with all art that endures, it is an ever-evolving journey.

16. p. 219.

Ensemble Vivant's thirty year history to date performing and recording these diverse genres, has provided a model for other piano chamber ensembles.

1.9 Towards a Healthy Buoyancy

I believe in promoting collaboration among classical artists, collaboration in the sense of mutual support, encouragement and recognition among peers. I feel this attitude and approach contributes very positively in music communities, helping to create and maintain a buoyancy that can help reverse the long term contraction of the classical music market.

Certainly I have personally benefited from a commitment to mutual support, blessed in being always able to return to my calling and picking up where I left off despite some serious injuries including but not limited to three hand surgeries for dupuytron contractures that resulted in me not playing for the better part of a year on each occasion. Many high-level classical performers have suffered injuries and set-backs that have ended their careers. The support and compassion an artist receives from colleagues and peers is critically important.

Our culture features many wonderful virtuoso concert performers. I believe that a focus on virtuosity can often be at the expense of that much more elusive element of the nurturing effect the music can have on the listener during the concert experience. High caliber performers need to have mastered their instruments technically, and this can be appreciated on its own for just that, but dazzling technical mastery does not in itself necessarily communicate the soul of the music, the depth of the emotional content of the

music to the listener. Although there is important and obvious gratification that the concert performer receives through applause and positive comments, I believe it is the nurturing effect the music has on the listener during the concert experience that is most important.

It has been documented that a relatively small percentage of our youth in our culture today, and for some time, are exposed to musical training, music-making and live performances of classical music and jazz music. I am of the school of thought that the focus of the musical training experience for children should be the individual's enrichment and enjoyment. It seems that teaching approaches that emphasize competitive elements can send the wrong message to students and drive many away, thereby denying the student the life-long benefits that this music can provide. Naturally not everyone is meant to become a concert performer, but I believe that everyone has the right to be nurtured by the multiple benefits that this quality music can provide.

A positive development in relatively recent times in traditional classical music teaching methods has been the inclusion of some non-classical musical genres in the practical classical music grade books of such leading institutions as the Royal Conservatory of Music, for example. This sends the message that it is the benefits the students receive from music-making, and the engraining of a love of music that matters. For students of classical music, exploration of various jazz and popular styles is a positive approach that can help them become more well-rounded musicians from both the practical and theoretical perspectives. I have found that one genre helps the other in profound ways. Thus a student of classical music might play a Bach minuet alongside a

piece by Oscar Peterson or by Scott Joplin as well as a favourite movie theme, which is a pleasure in itself, and, if the student is also praised for doing so, encourages an unbiased, non-snobbish attitude and feeling about quality music no matter the genre. It also allows the student to explore and learn about the interrelated aspects of these genres. Exposure to diverse genres alongside classical music might also help in sustaining the young classical music student's interest in listening to and playing this music and in attending classical and other concerts later in life. Traditional classical music teaching edicts did not allow for inclusion of non-classical music, which often succeeded for various reasons in turning students away from classical music altogether.

Sadly at present, opportunities to experience quality music of any genre, particularly the classical and jazz genres, are reserved for a shockingly minute percentage of children. Without these opportunities for everyone, I fear we are further threatening the health of individuals and of communities as a whole. I believe that the opportunity to make quality music and to hear quality music throughout one's life should not be limited to those who have the financial means. The absence of these opportunities for the vast majority of the population perpetuates the polarization between so called "high" and "low" culture that deepens from generation to generation, helping further to shrink the classical market to the point that it has currently reached, that of loud desperation.

1.10 The Musicians of Ensemble Vivant

Ensemble Vivant assumed a pioneering role among classical piano chamber ensembles. The caliber of the group's artistry, and the ever-growing diversity of the

repertoire have attracted some of the finest musicians from Toronto's classical and jazz communities. Classical double bassist Joel Quarrington, principal bassist of the National Arts Centre Orchestra and former principal bassist of the London Philharmonic Orchestra in England, has performed and recorded with Ensemble Vivant often. In December 2006, jazz bassist David Young, OC, who among other achievements was Oscar Peterson's bass player for over ten years, joined Ensemble Vivant, with his first tour with the group occurring in January 2007. Dave continued to concertize, tour and record with us until the summer of 2014 when he had to retire from the group because of surgery, but is now on the way to full recovery. Succeeding him as Ensemble Vivant's bassist is Jim Vivian who, like Dave, is equally at home in both the classical and jazz worlds.

One of Canada's great jazz pianists and vibraphonists, Don Thompson, OC, who performed with the likes of George Shearing, joined Ensemble Vivant in 2010 and continues to concertize, tour and record with us to this day, whenever possible. In Ensemble Vivant, Don plays the vibes and he has also written some arrangements for the group. Since joining Ensemble Vivant, Don has also become active with Euterpe, and children of all ages are inspired by him. Violinist Marie Bérard, concert master of the Canadian Opera Company Orchestra, was the original violinist of Trio Vivant, and a long-standing member who is on three of Ensemble Vivant's recordings. She was succeeded by Adele Armin, whose musical passions, like myself and bassist Jim Vivian, include segueing from the classical genre through to all kinds of jazz based idioms and styles. Violinist Erica Beston is another of that ilk of player who shines no matter the genre, as is Corey Gemmell, who became the group's violinist in 2014.

Trio Vivant's original cellist was Dorothy Lawson, the cellist on the group's first recording, *Palm Court Pleasures*, along with myself and Marie Bérard. Dorothy then moved to New York City, where she lives to this day. Dorothy is a founding member of the string quartet, Ethel. For one season Marie and I joined forces with cellist Amanda Forsythe, who is the cellist on the group's second release, *Palm Court Encores*. On the heels of that season, Amanda moved to Calgary to assume the position of principal cellist of the Calgary Philharmonic, ultimately becoming principal cellist of the National Arts Centre Orchestra in Ottawa. She currently concertizes extensively as a soloist and in chamber music collaborations including with her husband, violinist Pinchas Zukerman. Sharon Prater, the original cellist of the Colorado String Quartet, performed and recorded with Ensemble Vivant for ten years. Since early 2011 the group's cellist has been Sybil Shanahan, who is also equally comfortable in the classical and jazz genres. From the group's beginning, Norman Hathaway has played viola as needed. Norman is another "natural" who walks easily among diverse genres. Norman has been key in many overlapping roles, including tour manager and assistant recording producer, and has also been the president of Euterpe since that organization's founding.

Recently Don Thompson commented on his performance experiences with the group: "about as musically good as it gets...these are among the greatest artists in Canada, indeed in the world." He was struck by the camaraderie: "everyone in the group are such nice people and so easy to work with ... these are really good guys and girls." There is a terrific synergy in the group and we all get along famously both on stage and off stage. As Corey states, "this contributes greatly to the overall concert experience for

the audiences, all of whom are in complete awe of the whole dynamic.” We bring so much pleasure and enrichment to audiences of all ages wherever we perform, and “both the audiences and the group just don’t want this to stop.”¹⁷

17. “Ensemble Vivant, Live on Tour: From Bach to Piazzolla,” excerpts from concerts and interviews in BC, ON, and NY State in 2015, www.ensemblevivant.com.

Chapter Two. Origins and Lineage

2.1 Overview of Chapter Two

This chapter presents a selection of sources and relevant materials revealing the “roots” of various concepts and theories associated with “music and healing.” Examples also include various poetic excerpts which are more contemporary in creation but whose content references and resonates with a “lost” or disconnected tradition. Indeed one of the major questions is to what extent do the ancient authors articulate a tradition that reflects the reality of curative practices rather than employing the content as metaphors for a life-affirming process which existed in the spiritual, emotional, or aesthetic realms. Emerging from this idea for contemporary society is an overriding issue that seems to point to cultural loss and a broken lineage.

2.2 The Nature of the Challenge

Many other questions also emerge. What exactly was the pedagogical tradition? What was the nature of Orpheus, the mythical musician prominent in ancient Greek religion and culture?¹⁸ Who specifically taught Orpheus? What role did musical talent play in the healing process? When, how, and why did the world ignore the process and

18. While most contemporary thought considers Orpheus as part of a mythological system, the ancient Greeks saw him as part of their belief system or religion. He was “real” for many believers and this point is crucial for a full appreciation of his position. A somewhat similar parallel exists today with the “Christ of faith” and the “Christ of history”— there are “believers” and “non-believers” on both sides.

practice? Why was the philosophy which underlays “music as healing” abandoned? How can the “lost” knowledge (skills, treatments, prescriptions, etc.) be “re-created” and can this knowledge serve modern society as a functioning practice or must it remain in the ephemeral domains of history, literature, and poetry? Was music limited to spiritual and emotional healing or were musical techniques prescribed to cure diseases and counter unhealthy physical conditions? Some of these questions have obvious and direct links to various traditions while others remain obscured and blurred by historical distortion and cultural and religious change.

Many ancient cultures believed that an individual was an integrated unity of body and soul and believed that music (sound and vibration) was akin to the soul and therefore the key to an individual’s healthy soul and body. Plato (c. 427–347 BCE) believed that gymnastics were important to exercise the body and that the body could only remain healthy if the soul were healthy. He maintained that the two principles of human nature, the spiritual and the philosophical, are served by gymnastics and music respectively. This concept of holism permeated the entire ancient world. In antiquity music was considered to be a necessity, not a luxury, or something that was dispensable. Music embodied schooling and religious ceremonies, public and private festivities. The civic theatres were places of singing, of hymn, paeon and dithyramb with instruments and dance. Ritual, an aspect of temple worship and everyday life, had a musical element.¹⁹ “Indeed,” as Joan Breton Connelly concludes in *The Parthenon Enigma*, “music may have served to summon the essence of the divine... We must not mistake the primary function of music

19. For a recent discussion see Francesco Pelosi, *Plato on Music, Soul, and Body*.

in sacred ritual: it is a means of communicating with the divine, bringing the community together in a shared experience that transcends the quotidian, an altered state of being.”²⁰

2.3 Music in Ancient Greece and Other Ancient Cultures

In Greece, music was woven into almost every aspect of life accompanying religious rituals and other ceremonies. Poetry and music went hand in hand, and poets were typically composers who sang and accompanied themselves. Famous early examples include the *Iliad* and the *Odyssey*, and the oral traditions attributed to Homer.²¹ There are numerous other works and fragments by artists such as Hesiod (c. 750–650 BCE), Proclus (c. 412–485 BCE), Sappho (c. 600 BCE), Alcaeus (c. 600 BCE), Pindar (c. 522–443 BCE), among others. The ancient Greeks saw music coming from the Muses and their arts (poetry, singing and/or playing music, interpretative dancing) were constructed on harmony (melody and rhythm) as major constituents. From childhood onwards the Hellene was steeped in poetry, singing, dancing and the playing of instruments. The aulos²² was prominent, but the lyre was the principle instrument learned in schools, where children learned to sing and accompany themselves in “the cherished

20. p. 258.

21. There is considerable scholarly debate and controversy concerning Homer's true identity and whether or not the poet was an actual individual - a “blind bard” or a woman or simply an “icon” representing the whole legacy of the bardic tradition. A parallel academic debate also exists concerning the true identity of the author called “Shakespeare.” Some scholars claim the name Shakespeare was used as a “cover” or *nom de plume* for some other individual such as the Duke of Oxford.

22. The aulos is often considered to be a double reed but this designation does not equate with the use of the term “double reed” as understood today. Visual depictions often show two “pipes” and one assumes both have a vibrating reed. There is also visual evidence of a single reed or flute-like aulos.

poetry of antiquity.”²³ Common string instruments were lyres (kithara, kitharis, phorminx, barbiton) which functioned much as the guitar for today's singer/songwriter.

Plato and other philosophers such as Aristophanes (c. 446–386 BCE) and Aristotle (c. 434–322 BCE) maintained that training in singing constituted the highest education that a state could offer a student. Aristotle believed that music could influence the ethos of the soul and therefore the young must be musically educated. He believed that music had the functions of education *paideia* or education, *katharsis* and diversion. Plato felt that the young souls of children must be enchanted by melody and that music should be employed as an educational tool to promote self-control and develop character.²⁴ Socrates (469–399 BCE) maintained that education in poetry and music was critical as “rhythm and harmony sink deep into the recesses of the soul and take the strongest hold there, bringing that grace of body and mind which is only to be found in one who is brought up in the right way.”²⁵

The view of *paideia* meant good training in chorus singing, which embraced both singing and dancing. Plato maintained that chorus singing inclined men towards excellence and moral excellence and *paideia* enabled appreciation of the best in music. Damon, the Pythagorean philosopher, had a similar view; “Song and dance necessarily

23. Anderson, *Ethos and Education in Greek Music: The Evidence of Poetry and Philosophy*, p. 10.

24. *Ibid.*, p. 70.

25. *Ibid.* p. 68.

arise when the soul is in some way moved, liberal and beautiful songs and dances create a similar soul, and the reverse kind create a reverse kind of soul.”²⁶

Paideia was treated as a lifetime activity spanning childhood to old age, and important for both the religious and secular dimensions of human existence. Plato believed that mimetic practices, the influence of habit, stimulated both physical and intellectual development especially if begun at an early age. These habits were best acquired through choric training and Plato “traced the beginnings of music back to man’s natural impulses ... in man this impulse is the origin of the dance, of choric song, and of play.”²⁷

Music was thought to be an incitement to bravery. Athenaeus refers to the courageous Lacedaemonians who marched to battle to the accompaniment of flutes, the Cretans to the accompaniment of lyres, and the Lydians to that of panpipes and flutes. “Many of the foreigners also conduct peace negotiations to the accompaniment of flutes and citharas to soften the spirits of their enemies.”²⁸ When building the city of Messene, the Greeks worked to the accompaniment of music. Plato and Aristotle both noted that whole herds and flocks of animals responded to the melodious rhythms of music. In Egypt the sowing and harvesting of the crops was accompanied by flutes and dancing as well as singing, which “facilitated the rhythmical motions of the wine-treaders; the toil of rowing on the Nile boats was alleviated by singing; in general, every profession requiring a regularized rhythmic activity was facilitated by singing, such as the threshing of the

26. Ibid., pp. 39, 91.

27. Ibid., p. 104.

28. Meinecke, “Music and Medicine in Classical Antiquity,” p. 62.

corn, the milling of the wheat, the work of the carpenter and the like.”²⁹ Trumpets, drums, and clappers accompanied warriors. Sendrey says this was common to the ancient practices of the peoples of the Orient in all epochs. Indeed it was in western armies as well. Music not only instilled courage, but the rhythm enabled large groups of soldiers to manoeuvre together in battle formation, while trumpet calls and drum beats were also an essential method to signal movements and pass intelligence in the era before radio communication and when the clouds of dust raised by battle made visual signaling ineffective.³⁰ Sendrey also notes that music “played an increasingly important role in courtly life and in the entertainment of the nobles and the wealthy.”³¹

Aristotle, the son of a physician, argued, more generally, that music was an important factor in achieving intellectual virtue, for “music in its melodies and rhythms contains images of anger and gentleness, of courage and temperance, and all their opposites, and other moral qualities that correspond most closely to the true nature of these qualities...music contains in itself imitation of character, reproduced variously by the different modes: the Lydian is decorous and educative, the Phrygian is violently exciting and emotional, the Dorian is more composed and manly.”³² Pindar (c. 522–443 BCE), the first Greek poet to be a professional musician, described the Dorian mode as being the most dignified. “Mode expresses man’s reaction to outward circumstance. A belief in modal ethos supposes that the modes can qualify man’s nature ethically ...

29. Sendrey, *Music in the Social and Religious Life of Antiquity*, p. 39.

30. McNeill, *Keeping in Time: Dance and Drill in Human History*.

31. Sendrey, p. 38.

32. Meinecke, p. 59.

music was credited with the double power of expressing and also of influencing our moral nature.”³³ The need for musical education as an influence on human nature was emphasized since the soul rules the body, appropriate melodies, harmonies and instruments must affect both soul and body. Thus musical training was all the more important if a society were to truly benefit. Aristotle states:

It follows from all this that music has indeed the power to induce certain conditions of mind, and if it can do that, clearly it must be applied to education and the young must be directed to music and must be educated in it and by it. And teaching music is particularly apt for the young; for they because of their youth do not willingly tolerate anything that is not made pleasant for them, and music is one of those things that are by nature made to give pleasure. Moreover there is a certain affinity between us and music's harmonies and rhythms; so that many experts say that the soul is a harmony, others that it has harmony.³⁴

Plato was convinced of the importance of music for the entire nation. When the soul loses its harmony, it is melody and rhythm that can restore it to order. “He who is diligent in molding his body must in turn provide the soul with motion by cultivating music. When there is a coincidence of beauty in the soul and corresponding and harmonious beauties of the same type in the body, this interrelation of beauty leads to the philosophy of universal love, and the union of soul and body in one common motion one may properly call perception.”³⁵ Plato supported Aristotle's belief that young children would benefit from music education. “Must we not rather regard music as a stimulus to goodness capable of having an effect on the character, in just the same way as gymnastic

33. Anderson, pp. 31-32.

34. Aristotle, p. 310.

35. Meinecke, p. 57.

training produces a body of a certain type. And so capable of forming men who have the habit of right critical appreciation?"³⁶

Pythagoras (c. 570–495 BCE), while exploring the physical effects of music, discovered powerful mathematical relationships. Many of his concepts were based on the premise that man's soul is harmony, and that the most momentous thing in human life is to win the soul to virtue; for virtue is harmony, and likewise all good and health, mental and physical. Since order, proportion, and measure were to him the essence of life, he and his school devoted themselves ardently to music to attain ethical perfection. He believed that if one employed music in daily life according to a prescribed manner, it would make a salutary contribution to one's health. Pythagoras investigated the physics of sound and his research, his "discovery" of natural harmonic ratios (1:1, 2:1, 3:1, 4:1, 5:1, etc.) common to vibrating bodies³⁷ lay the ground work for the study of acoustics and music theory. The perfect consonances (intervals of the perfect unison, perfect octave, perfect 5th, and arguably the perfect 4th) remain fundamental as the structural units of the western tonal system and are common structural elements in many different music systems. Pythagoras used his knowledge of music for his daily singing and playing, which were an inseparable part of his process of spiritual catharsis or purification of the soul.

For the Pythagoreans, by whom Boethius was largely influenced, both music and the soul share a basis in number. Music is demonstrably numerical, as

36. Aristotle, p. 306.

37. The story of Pythagoras noticing the sound of the blacksmith's hammer as it struck various anvils is well known. The monochord (single vibrating string which enables various lengths to serve as vibrating generators) served as his investigative instrument and enabled research which has, over the intervening centuries, informed everything from speaker design to alternative tuning systems.

experiments with the monochord had shown them. In the Pythagorean tradition the soul is also made from number because it reflects the structure of the World-Soul, whose mathematical formation is set out by the Pythagorean philosopher Timaeus in Plato's dialogue of that name.³⁸

After Pythagoras the concept of the "harmony of the spheres" was central to the Greek view as a symbol of universal order. The principle is that the entire universe is divided into a double octave, with the sun at its centre. The octave (ratio of 2:1) and the fifth (ratio of 3:2) were considered to rule the universe and serve as the fundamental basis of music. The intervallic subdivisions represented the link between nature and the soul and revealed the direct relations between pitch and numbers. Sound (musical intervals) was physical and could be experienced as such. The number ratios correspond to particular feelings and have sympathetic capabilities. The biblical account of the destruction of Jericho through the use of a trumpet, although somewhat curious and at odds with empirical and scientific thinking re that specific instruments ability to generate enough vibrational force to facilitate a "sympathetic" collapse of the walls, seems to reference this aspect of acoustic phenomenon. The musical intervals have been found to correspond directly to the proportions of the human body.

Furthermore the proportions of the human body correspond to the mathematical relationships between the planetary cycles. If the nipples divide the body roughly in the ratio 4:3, this corresponds not only to the musical 4th, but also to the relationship between the synodic periods of Mars and Venus... Thus the two worlds of sound and planetary motion find in the human body a direct, visible

38. Godwin, *Harmonies of Heaven and Earth: Mysticism in Music from Antiquity to the Avant-Garde*, p. 21.

expression. Here the links between man and cosmos are the musical ratios, which represent in the truest sense of the term a principle of universal order.³⁹

There are other proportions of the human body from man's inner organs, glands and their "underlying chakras." Vibration, relating to the various levels of consciousness, is found in certain types of chanting, such as that of the Tibetan monks. These have been known to the Mongolian shamans and the Tibetan monks in their chants. The bodily proportions between their associated inner centres no doubt reflect the harmonic series as well. Hamel writes: "Tone-colour permits certain specific effects on the listener. If used correctly, music can heal, remove anxiety and bring relaxation through the linking of the inner tone-colour zones, in other words, the relative proportions of the 'upper sounds' of a harmonic series, with the corresponding parts of the body and of the inner man...tone-colour is the music of the elemental nature of sound."⁴⁰

"One of the most enduring models for the relationship between music, consciousness, and the universal creation, was that of the lyre. The use of the lyre was based upon precise attributes and harmonic patterns that are physical rather than allegorical."⁴¹ "Music is effective as a therapeutic agent because, under the right circumstances, it can realign patterns of emotion, structures of consciousness or psychic energy...Music has the power to move us out of rigid or self-devouring negative states of consciousness."⁴²

39. Hamel, *Through Music to Self*, p. 122.

40. *Ibid.*, p. 129.

41. Stewart, *Music Power Harmony*, p. 54.

42. Stewart, p. 62.

The concept of the Four Elements, which dates from pre-Socratic times, had widespread influence on much of humanity throughout history. These elements correspond to and harmonically resonate within various energy centres in the human organism: Earth—Feet; Water—Genitals; Fire—Heart; Air—Throat. Elemental balance or imbalance was believed to exist in man in the manner of humours, or moods. These were energy patterns or subtle substances, energies of fluids within the body that corresponded to the four elements. So if one suffered melancholy, one of the humours, it was believed that this was because of an elemental imbalance. The octave, or next spiral was above the head and frequently attributed to the Spirit.

The existence of archetypal elements is recognized in the healing traditions of many cultures, all of which refer to sound. The ancients did not use the word “energy,” rather they used the concept of “sacred sound.” For example, Chinese healing is based upon the concept of the five elements of Wood, Fire, Earth, Metal and Water, all of which encompass natural phenomena. The Sufi, Hazrat Inayat Khan expresses sacred sound as the word “music” and it was Pythagoras, who having conceived of the universe as a musical instrument, called the sacred sound of the universe the “Music of the Spheres.” The seers, or ancient *rishis* of India, referred to sacred sound as *Shabda*.

Everything was a manifestation of the underlying frequencies of “sacred sound” or sonic vibration. Pythagoras explored overtones (the upper harmonic partials of the fundamental tone) and their relationship to and in nature, geometric proportion, and sound theory. The sound emanating from an activated string on a monochord represented the genesis of creation: pulse, wave, and form result. The fundamental pitch (or

frequency f) and its organic overtones which are produced by the division of the vibrating body ($2f$, $3f$, $4f$, $5f$, etc.) supported an explanation of the mysterious merging of the one and the many. The whole length of the sounding string of a monochord generates a fundamental tone (often referred to as the generating frequency, tonic pitch, or primary partial) which is the “goal” from which all sound comes and to which all sound returns, another manifestation of the creation myth. Healing attempts to facilitate a return to the fundamental and “normal” state of well-being—a sort of natural or fundamental level of existence. The individual needs to be able to resonate with a part of him/herself in order to remain healthy and not lose inner harmony and become dissonant or dis-eased.

Harmony is from the Greek word *harmos*, meaning “to fit together.” The partials must be in sympathy and in proper alignment with the fundamental. “The inner experience of this harmony is an experience of our own fundamental.”⁴³

“In the *Li Chi*, the ancient *Chinese Book of Rites*, whose compilation was begun by Confucius (551–478 BCE) there is a long discourse on how music should be used in conjunction with ceremonies to bring civilization into a proper state of harmony and order.”⁴⁴ For the ancient Chinese the balance of the yin and the yang was the basis of all healing, all of which originated from the fundamental Wu Ch’I: “When the two poles yin and yang work together they create a balance.”⁴⁵ In dividing the string of the monochord, the 5th degree (dominant or fifth above) and the 4th degree (lower dominant or fifth below) work together as a yin and yang. Scholars are increasingly discovering parallels

43. Beaulieu, *Music and Sound in the Healing Arts*, p. 44.

44. Godwin, p. 31.

45. *Ibid.*, p. 45.

and affinities between ancient Chinese and ancient western societies. In this case, Plato seems to express the essence of Chinese thinking: “music is a heaven-sent ally in reducing to order and harmony any disharmony in the revolutions within us...because rhythm and harmony find their way into the inward places of the soul.”⁴⁶ This idea remained as part of western thought through the ages. Leonardo da Vinci (1452–1519) stated the matter of existence in a simple phrase that vibrates across the centuries, “Do you know that our soul is composed of harmony?”⁴⁷

To the Greeks and Romans “disease was a disharmony of the component elements composing his physical and psychological nature; a harmony of these elements indicated health, and were the embodiment of the whole man, whose medical ideal is pertinently expressed by Juvenal’s maxim: healthy mind in a healthy body. Homer, poet and singer, had already recognized a dual nature in man, and he ennobles the dignity of the Greek man...thinkers from Thales to Plato sought to integrate both soul and body.”⁴⁸

Homer recommended music as a tonic to:

... avoid negative passions such as anger, sorrow, worry, fear, fatigue and to promote healthful recreation for elevating soul and body.” He urged that “minstrels from all men on earth win their reward of honour and reverence, since the Muse teacheth them the path of song, and loveth the tribe of minstrels. They spread cheer with the lyre when men feast, for music is the crown of the festive board...but their crowning glory lies in the moral power of their music, whereby they were charged to protect the chastity of Penelope and Clytemnestra, Phemuis the one, Demodocus the other, during the absence of their husbands.”⁴⁹

46. Storr, *Music and Mind*, pp. 24, 125.

47. “The reply of King Mathias to a poet who competed with a painter,” in Jean Paul Richter, *The Literary Works of Leonardo Da Vinci*, vol. 1: 66.

48. Meinecke, p. 52.

49. *Ibid.*, p. 55.

Medical and musical functions were attributed to various ancient deities by the Greeks and Romans, but particularly Apollo and Aesculapius. The Greeks believed the healing powers of Apollo and Aesculapius to be a form of naturalism as both gods represented the healing powers of nature: Apollo preserved the harmony of life by divination, music, and medicine. He bequeathed all his functions to his son, Aesculapius. Apollo had more influence in Greek and Roman religion than any other god. "He represents the pure intellect, and is the god of mental and moral purity; therefore his godhood is the very essence of the Greek idea that the aim of life is the purest harmony of soul and of body."⁵⁰ He was leader of the Muses and god of music and was also known as Musagetes and Citharoedus; as a health-giving deity named Apollo Iatromantis (physician and seer, or, physician of the soul). Medicine and music were united in Apollo's divinity as inseparable unity. One of his functions as physician and seer, was to purge the soul of man of guilt, cleansing his body of ills and preserving the harmony of life by dispelling evil. Bruno Meinecke, the American professor of classics and a musician, captured these ideas in verse:

Music, thou gracious, pure art,
With thee vanish grief and pain;
Thou dost adorn the spirit with joy and grace,
Thee I clasp forever in my heart.⁵¹

The Romans dedicated many temples to Apollo and one early construction in 430 BCE was built as a means of countering a pestilence. In Roman times Apollo was a

50. Ibid., p. 48.

51. Ibid., p. 47; "B. Meinecke: Memoir," Proceedings of the Board of Regents [University of Michigan, 1957], pp. 94-95.

favourite god and his temples were often connected with medicinal waters. The hot sulphur springs at Aquis Granum where pilgrims worshipped Apollo Granus was famous for its therapeutic value in the cure of gout, arthritic ailments and scrofula. The magic melodies and captivating power of pure harmonic invention was represented by demigods such as Orpheus who discovered sonic mysteries, performed purification from transgressions, cured various diseases and possessed the means to avert the anger of the gods.

The man whose song moved Thracian swordsmen
To surrender arms, who charmed alike wild beast and stone,
Who summoned from the fresh-leafed hills whole herds
Of forest creatures, great flocks of broad-winged birds.
The man whom legend reminds us once intoned a chord
So deep in the heart of the underworld
The damned fell silent and the Furies wept.⁵²

Like Apollo, Orpheus was associated with oracular gifts and purificatory ritual: through the medium of poetry, music (as medicine?) and he also administered remedies to soul and body through music. His power was sympathetic and resided in song and in the responses of nature.

As the tidal flats resounded
With the pathos of his song,
Unnumbering broad-winged
Shorebirds circled overhead,
And fishes leapt straight from the sea.⁵³

The power attributed to Orpheus through his musical gifts generated a poetic tradition that resonates across the centuries taking lasting root in the minds of western culture.

52. Damagetus (c. 300 BCE), trans. Santos.

53. Simonides (c. 556– 468 BCE), trans. Santos.

William Shakespeare (1564–1616) often referenced the sympathetic relationship between music and the situation in which people find themselves. Though the Bard has “small Latin and less Greek” according to Ben Jonson, he was well aware of various Greek and Latin dramatic sources and was constantly willing to develop, adapt, and reinforce the ideas and concepts of past cultures, established themes, and extant work by authors. His take of the Orpheus myth and the power of music is telling.

Orpheus with his lute made trees
And the mountain tops that freeze
Bow themselves, when he did sing:
To his music plants and flowers
Ever sprung; as sun and showers
There had made a lasting spring.

Everything that heard him play
Even the billows of the sea,
Hung their heads, and then lay by.
In sweet music is such art
Killing care and grief of heart
Fall asleep, or hearing die.⁵⁴

Aristophanes (c. 448–380 BCE) said that Musaeus, a priest, poet and physician introduced us to the complete cure of diseases and oracular responses. The close affinity between the two deities, music and medicine, is substantiated by Pindar, to the effect that Aesculapius delivers those who suffer from festering sores or wounds received in battle or whose bodies waste away with the excessive heat or cold of the seasons, and others who suffer diverse pains of body or soul, healing them with soft, enchanting strains,

54. William Shakespeare and John Fletcher, *The Oxford Shakespeare: Henry VIII, or All is True*, Jay L. Halio, ed., III/i.iii.

applying soothing potions to others or treating their limbs with simples or restoring them by surgery.⁵⁵

The inseparableness of music and medicine in Roman times was authenticated by Cicero (c. 106–43 BCE). Cicero shared the belief that man is both soul and body, and he approved of music and song as therapies for mental health. The Greeks and Romans believed that it was necessary to create an ecstatic experience in the patient in order to activate or awaken the curative power of the soul. This situation would thus restore the harmony between soul and body and in this way, the recuperative powers of Apollo and Aesculapius merged into an elemental psychotherapy, which was efficacious because the patient believed in the process.

It was also felt that music could positively influence politics by softening the hardness in the character of a people and thus humanize a whole nation. Polybius attributed the brutality and criminality of the Cynanetheans to the fact that they had “abandoned” music, in contrast to the virtuous Arcadians who “cultivated” all forms of music and dance as central elements of public life.⁵⁶

The ancient story of the artist Theon demonstrates the psychological effect of music as he attempted to use music to create mood and magnify the artistic impact and acceptance of his painting. “He stationed a trumpeter near the picture and had him sound

55. Meinecke, pp. 49-50.

56. *Ibid.*, p. 60.

a warlike melody such as was usually employed to stimulate the soldiers for an attack...At the proper moment, he unveiled the picture portraying the soldier in action.”⁵⁷

Plutarch (c. 46–120 CE) believed that the musical education of youth inclines the individual to embrace traits that are noble and generous and to observe decorum, temperance, and to develop good habits. Homer's *Illiad* shows how the gods tried to inspire a hero's courage through music and poetry. Achilles, Hercules and many others made “use” of music for this purpose and to raise their spirits. Indeed in the *Illiad*, Achilles, his pride wounded due to the insult of his king, refuses to fight and remains in his tent by the hollow ships on the shores of Troy attempting to sooth his wounded pride and saddened soul with music.⁵⁸

Music accompanied feasts and banquets in Greek and Roman culture as an aid for digestion and as a calming tonic for mind, soul and body. The positive effects of rhythm and melody produced by dancing and the music of the lyre effected physical behaviour. Plutarch claims Homer had music at banquets to “counteract the intemperance of wine, which weakens both body and mind; for music by its harmonious order and symmetry assuages and reduces these to their natural condition.”⁵⁹ There is the story of the intoxicated Sicilian youth who became enraged listening to music in the Phrygian mode. He was rushing to the house of his mistress and planned to burn it down as he had heard she had received a rival suitor. The music enraged him more and more. Observing this, Pythagoras ordered the flute player to change modes, and at once the youth calmed down.

57. Ibid.

58. Homer, *Iliad*, trans. Mitchell, IX.183-188.

59. Meinecke, p. 70.

Pythagoras fully understood the use of music, poetry and dance as a means of generating emotional stability.

The Roman philosopher Seneca is quoted as proclaiming:

The care of the soul is man's most important duty, because from our soul issue our thoughts, from the soul our words, from the soul develop our dispositions, our expressions, and indeed our very gait...Whoever has no knowledge of music, knows other things to no purpose.⁶⁰

The deep interrelation between music and medicine is also shown by the famous Alexandrian physician Herophilus (c. 335–280 BCE) who “regulated the arterial pulsation according to the musical scale correspondingly with the age of the patient.”⁶¹

Cassiodorus believed that the spiritual benefit of musical training was operative in every act of one's life, physically and morally:

Our speech is regulated by musical rhythm, and our pulse; and this in turn, through harmonious symmetry, is associated with our character. For music implies a harmonious relation with the Creator. His reflections on the curative influence of music as it affects the soul lead to the following characteristics of Greek modes: the Dorian influences to modesty and purity; the Phrygian stimulates to fierce combat; the Aeolian composes mental disturbances and induces sleep; the Ionian whets dull intellects and kindles a desire for heavenly things; the Lydian soothes the soul when oppressed with excessive cares.⁶²

Boethius (c. 480–525 CE) agreed with Plato's ideas linking the universe and its soul with musical harmony; and all ages of mankind respond to its soothing strains. He also supported Plato's belief that the music of well-chosen modes will invade the heart and mind with proper morals.

60. Ibid., p. 67.

61. Ibid., p. 67.

62. Ibid., p. 68.

The power of pure harmony to unify discordant elements and by sweet concords to restore tranquility to a soul rent asunder by different psychoses and phobias is symbolized as early as pre-Homeric times by such well-known demigods as Amphion and Orpheus. Their entrancing tunes becalmed the surging rage of wild beasts and caused rocks and stones, mountains and forests, to bow to their will.⁶³

There are numerous other examples of music acting as healing. “From the Pythagorean Cleinias, who was well known for his exemplary conduct and character, who achieved this distinction by calming himself down by playing on the lyre; to Terpander, who invented the seven-string lyre, who appeased treasonable conduct among the Lacedaemonians ...” when this people became embroiled in civil strife, an oracle stated that they would again be reconciled if Terpander of Methymna should sing to them to the accompaniment of the cithara. He did sing to them and his harmonies so played on their emotions that he brought harmony again into their midst. They were completely changed, embracing and tearfully kissing one another.⁶⁴

Music has charms to soothe a savage breast,
To soften rocks, or bend a knotted oak.
I’ve read that things inanimate have moved,
And, as with living souls, have been inform’d,
By magic numbers and persuasive sound.⁶⁵

In cases of mental and nervous disorder, music played a major role. Maecenas, Augustus, a vice-regent and arts patron, was cured of insomnia by hearing distant strains of music. Indeed, there are many forms of music that are concerned with inducing

63. *Ibid.*, p. 70

64. *Ibid.*, p. 72

65. William Congreve (1670–1729), “The Mourning Bride,” *I/i*, in *Bell’s British Plays*, p. 13.

relaxation and even sleep—the healthiest of all activities.⁶⁶ Psychiatric cases of many types were treated by music among the Greeks and Romans. Boethius believed that the harmonious symmetry of soul and body were innate and understood how sweet lullabies charmed infants.

“Aristides believed that music shapes and fashions man’s moral ideas through harmonious experiences, and renders the body more harmonious through rhythm...music as a pedagogical element is ideally adaptable to all periods of life and to all of life’s conditions. In fact, no activities in human affairs are consummated without music.”⁶⁷ Aristides also said, “a sorrowful mood can plunge many into incurable diseases if relief be not applied ... the emotions of melancholy and of rage are cured by music ... and by degrees, through an unconscious purging, restores them to a normal state.”⁶⁸

That music was regarded as a therapeutic agent for the body and for the soul can be verified by sources of evidence found in both medical and non-medical authors of the Greeks and Romans. In his work on *Deadly Infections*, Democritus, the pre-Socratic philosopher, stated: snakebites should be treated by the skillfully and melodious playing of the flute. Orpheus had the same effect with his magical lyre playing. Although he was able to “revive” his wife Eurydice, his music was unable to return her to life on this

66. The lullaby, nocturne, aubade, serenade, vespers, evensong, and night music are common musical “evening” forms with a focus on relaxation. Mozart's *Eine Kliene Nachtmusik* and the piano nocturnes by Chopin are famous examples from the western classical tradition. Stephen Sondheim develops and expands this theme for his Broadway musical “A Little Night Music.”

67. Meinecke, p. 76.

68. *Ibid.*, p. 78.

earth.⁶⁹ The Orpheus legend is perhaps most easily interpreted as a metaphor for a gentle passing into what Dylan Thomas called “that good night.”⁷⁰ Today harp music is used in cases of severe illness and in some sense this sonic blanket serves as travelling music that facilitates the journey of passing from one state to another—the physical to the spiritual or from this world to the next. “How strange the change from major to minor, every time we say goodbye.”⁷¹

Martianus Capella who played a major role in developing the liberal arts noted the use of music to cure fevers and treat wounds.⁷² Asclepiades used the trumpet to treat patients suffering from extreme deafness. One might speculate that he focused and magnified the sound to employ tonal reverberation and sympathetic vibrations as part of the process. “The physical malady of ischialgia was very common among the Greeks and Romans and music was especially recommended to cure this. Theophrastus recorded in his work *On Inspiration* that persons subject to sciatica would always be free from its attacks if one played the ancient flute in the Phrygian mode over the part affected.”⁷³

Theophrastus recommends music for relieving epilepsy with music of the flute. Theophrastus also recommended music for chronic cases of insanity and for various phobias. “For purposes of healing, the auloi were considered the most potent of all musical media. Their playing could heal madness as well as all the violent emotions, and

69. E.g., Trsaskoma, Smith, and Brunet, *Anthology of Classical Myth*, pp. 19, 96.

70. “Do not go gentle into that good night,” Gardner, ed., *The New Oxford Book of English Verse*, p. 942.

71. Cole Porter, “Ev’ry Time We Say Goodbye” (1944), Wilder, *American Popular Song*, pp. 247-49.

72. Meinecke, p. 83.

73. Ibid.

even physical illness. In Homer we read how Odysseus, during a hunt on Parnassus, was attacked and severely wounded by a boar. His hunting companions, the sons of Autolykos, came to his rescue, and through their magic song were able to stop his bleeding, which led to his complete recovery.”⁷⁴

The Greeks and Romans were able to dispel diseases and plagues from their people through music:

So Thaletas of Crete, poet and musician, Tyrtaeus, who combined his energies with the music of the flute, as well as Terpander of Lesbos and Alcman, a flutist, were all summoned by the Lacedaemonians from foreign states, whenever they were smitten by diseases and pestilence, to allay the divine scourge by their several musical arts in accordance with Apollo’s oracle. Also, Arion, a celebrated cithara player for Methymna in Lesbos, and Terpander also rescued the Lesbians and Ionians from grievous diseases with the aid of their music.⁷⁵

Music that cured sickness also had the power to chase away evil spirits. At sacrificial rites this was originally achieved by the loud outcries of women, called oloygo, and later by the piercing sounds of the auloi.⁷⁶ For moral purification (katharsis) the Apollian strings were used, but the auloi was also used for healing rage, madness, passionate love and bodily sickness. “Plato mentions the healing of corybantic frenzy through dance and the music of the auloi.”⁷⁷ In ancient Greece a shaman was called an *iatromantis* and Aristotle states:

This is a kind of excitement which affects some people very strongly. It may arise out of religious music, and it is noticeable that when they have been listening to

74. Sendrey, p. 320.

75. Ibid., p. 81.

76. Sendrey, p. 352.

77. Ibid., p. 253.

melodies that have an orgiastic effect they are, as it were, set on their feet, as if they had undergone a curative and a purifying treatment.⁷⁸

He develops this idea further by adding, “to them all comes a pleasant feeling of purgation and relief. In the same way cathartic music brings men an elation which is not harmful.”⁷⁹ Pindar’s odes were typical of Greek and Roman practice to use public singing, accompanied by flute and lyre and combined with dancing, to raise the “moral tone” of athletic competitions, increase the power of ritual in religious festivals, and also to soothe the public mood at moments of crisis, such as epidemics. While music thus served as a form of psychotherapy, it had the function of being both curative and preventative, both among groups and for individuals. Just as music inspired “harmony” in relations among people, it also strengthened a person’s constitution, to alleviate illness, or to ward it off.

The healing of psychic maladies through music was true of almost all ancient cultures. In Egypt the poets and musicians were considered to be “improvers of the mores.”⁸⁰ Playing the lyre or flute was a virtue that was considered essential as it was felt that this discipline developed character. Along with singing and playing instruments, dancing in all the religions of the ancient Orient was essential. Like the Greeks, the Egyptians believed in the harmony of the spheres. This belief may have even preceded the Greeks as: “there are traces of it in ancient texts found in burial chambers of the pyramids. In a hymn to the goddess Hathor, found in the temple of Dandera: To thee, the

78. Aristotle, p. 314.

79. Ibid.

80. Sendrey, p. 41.

heaven and its stars make music, Sun and moon sing praises to thee, The whole earth is making music for thee.”⁸¹ Plato, who had travelled in Egypt between 398 and 385 BCE, commented on the melodies that were meant to govern human emotions and to purify the spirit of men.⁸² The British poet and scholar Alexander Pope (1688–1744) developed this theme in his acknowledgement of the patron saint of music, Cecelia. The link to the divine is never far from the surface.

Music the fiercest grief can charm,
And fate’s severest rage disarm.
Music can soften pain to ease,
And make despair and madness please.⁸³

Shakespeare again reveals his deep understanding of the relationship between music and the nature of the individual and returns to the wellspring of Greek mythology in Lorenzo’s speech to Jessica in *The Merchant of Venice*.

Therefore the poet
Did feign that Orpheus drew trees, stones, and floods;
Since nought so stockish, hard, and full of rage,
But music for the time doth change his nature.
The man that hath no music in himself,
Nor is not mov’d with concord of sweet sounds,
Is fit for treasons, stratagems, and spoils;
The motions of his spirit are dull as night,
And his affections dark as Erebus.
Let no such man be trusted. Mark the music.⁸⁴

81. Ibid., p. 48.

82. Plato, p. 45.

83. “Ode for Music on St. Cecilia’s Day,” in William Roscoe, *The Works of Alexander Pope, Esq.*, p. 242, line 123.

84. William Shakespeare, *The Oxford Shakespeare. The Merchant of Venice*. Jay L. Halio, ed., V/i.

The musical practices among the peoples of Near Eastern Antiquity such as the Phrygians and Lydians had an influence on Greece, and in all these ancient cultures it was known that music stirred the emotions and also subdued them. It was the Hebrews and Greeks of Antiquity who treated music as an art and who “pursued through their musical culture a higher, ethical and educational level.”⁸⁵ According to the Old Testament, Saul was periodically tormented by evil spirits and his servants recommended that David, a skilled performer on the lyre, serve as “the cure.” “And it came to pass, when the evil spirit from God was upon Saul, that David took an harp and played [it] with his hand: so Saul was refreshed, and was well, and the evil spirit departed from him.”⁸⁶

In numerous cultures across many traditions it was the job of the medicine man and shaman to treat the patient with healing chants. Along with rattles and drumming the evil spirits of disease were driven out. In many Eastern and African ancient cultures

the gods of wind, water, fire and war have their own special drum signals...which consist of minute rhythmic hesitations, short gaps and pauses between the beats and the minutest gradations of volume. These acoustic signs are detected with the bell, or rather in the human consciousness. The drum rhythm of the shaman appeals primarily to man’s centre of magical consciousness. In the early animistic cultures of Africa this centre in the human abdomen was associated with the heartwood of a tree. The hollowed out tree, which was also the original form of the drum, was never allowed to be seen by the uninitiated. For the African tribes, as for the Asian peoples of the Arctic, the drum is the voice of “the One above,” the Thunderer, the Father of all, the Almighty.⁸⁷

In the early epoch of Egyptian history the sound of instruments, as in other primitive civilizations, had mainly magical connotation. Musical instruments were used to ward off evil spirits ...For the Egyptians, music was the way to the hearts of the gods of the higher and lower regions, as well as evils spirits...it was

85. Sendrey, p. 76; see also Sachs (1943), pp. 59-62.

86. I Samuel 16:23, King James Version.

87. Hamel, pp. 77-78.

performed mainly by priests and priestesses, the latter functioning at the same time as sacred temple dancers.⁸⁸

In many ancient non-Western cultures, the drum was the means by which the shaman was able to communicate with the world above and the world below. It was the instruments that made contact with god, spirits and demons as well as with the souls of ancestors and mythical beasts.

Not very far from the sing-song rendering of the sorcerer or Shaman, but nearer to the chanting of the priest, was the role of music in healing... This power attributed to music has remained unchanged throughout the history of early civilizations. "Music" in the sense of singing or playing of instruments has equal importance for healing ... For a long time witch-doctors as well as priests, perpetuated the idea that music had healing powers.⁸⁹

Ethnomusicologist Curt Sachs, who did pioneering work on music in antiquity partially based on field work among contemporary aboriginal peoples with neolithic cultures, says that singing gave meaning to early existence and determined the nature of poetry, helped in healing, providing the necessary background for ritual magic and inspiring dancers and intoxicating warriors. The shaman invoked great spirits to heal and protect individuals, families, and tribes. It was believed that music and sound magically allowed the powers above and below to come together.⁹⁰

Sachs observed the connection between primitive medicine and music: "When the medicine man (shaman) performs religious ceremonies, the music approaches the liturgical intonation. And from the chants of the witch doctor it has descended by a long

88. Sendrey, p. 38.

89. Hamel, p. 26.

90. Sachs (1943), pp. 20-23; Sachs (1962), pp. 80-83.

chain of heredity to the liturgy of higher religions; it lives on in the Shaman of the Hindu as in the Leinen of the Jews and the Lectio of the Christian Churches.”⁹¹ The Jews believed in the healing powers of music until late Talmudic times. “We even find in the Talmud the mention of a song (*Shir peg ‘ayim*) that was allegedly capable of serving as protection in times of epidemic.”⁹² Of course issues of folkloric traditions often conjure images of superstition and ignorance and these sorts of attitudes tend to downplay the potential of music as a therapeutic process.

From the earliest times the shamans of Mongolia appreciated the secret of music, and consciously practiced the phenomenon of the “monotone.” The Chinese musical system is the oldest and philosophically most highly-developed in history. The ancient music of China influenced the music of Japan, Korea, Mongolia and Tibet. For over two thousand years many cultures in Peru had Peruvian “whistling vessels” which are believed to have played an important spiritual part in the Peruvian’s life, producing vibrations that induced an expanded state of consciousness.⁹³ Jonathan Goldman wrote: “Such vessels were undoubtedly sacred tools, used under the guidance of a shaman or priest and utilized only at specific times and for specific purposes.”⁹⁴ The Tibetan bells, or Ting-Sha’s, along with the Peruvian Whistling Vessels are examples of ancient Shamanic tools that employed the concept of sonic entrainment for the brain, which as a phenomenon has been used by shamans from different cultures since pre-historic times.

91. Sachs, (1937), pp. 201-2; the point is further developed in Sachs (1943), pp. 21-23.

92. Sendrey, p. 244.

93. Wright in Campbell (1992), p. 156.

94. Campbell (1992), p. 229.

Goldman says, “the ability to create altered states of consciousness through drumming and chanting is probably as old as music itself.”⁹⁵ These as well as drumming and chanting were used by shamans to alter consciousness. Shamanism goes back to the very origin of our species. In the shamanic culture, illness or disease was viewed as being a result of disharmony and imbalance in the personal energy field of the individual. The ancient shaman’s purpose and belief was to bring the psyche of the afflicted person back to wholeness and health. Shamans viewed the human being as a part of nature and not as being separate from nature. This was true whether in Greece, India, Tibet, Africa, China or elsewhere in the ancient world.

The ancient cultures’ views of the interconnectedness of body and soul and the healing powers of music as a preventative and as a curative for psychic and physical maladies prevailed in Western culture until the 17th century. It was the 17th century philosopher René Decartes, who in his book *Traité de l’Homme*, portrayed the universe as being divided into two separate parts. The universe of man he claimed had two divisions that were separate from each other, those being the mind or spirit and the body. The body became the domain of the medical doctor and the soul, mind and life force, became the domain of the church and were not to be interfered with by medical doctors. Later in the 17th century Sir Isaac Newton validated Decartes’ philosophy pioneering a physics based upon the principle that mass and energy constitute two separate closed systems. This philosophy of separateness endured until very recent times. So strict were the laws concerning this philosophy, that any doctor who went against the realm of the

95. Ibid., p. 228.

church was punished by death or imprisonment. This was the fate of Dr. Wilhelm Reich, a scientist who had earned an international reputation as a scientist of integrity. Only a few decades ago his remarkable findings challenged the foundations of traditional medicine.⁹⁶ What he had discovered was nothing short of the energy responsible for the biological, orgiastic pulsation of life on Earth (and possibly the universe). Alfred Einstein is reported to have exclaimed that this would be a “bombshell” to physics.⁹⁷ Tragically, Reich was labeled a quack by the politically-motivated American government and by the American medical system. Rather than embracing his discoveries, it was ordered that his documents be destroyed and that he be imprisoned. He died in prison in 1957.⁹⁸

“The ‘rational’ sciences of the 18th and 19th centuries will be looked upon as temporary aberrations, aberrations for which we may yet pay the extreme price of self-destruction. This time may become known as The Very Dark Ages.”⁹⁹ Yet, even in 1997, as noted above, Steven Pinker of Harvard dismissed music as “auditory cheesecake.”¹⁰⁰

The findings of present day philosophers, cognitive psychologists, ethnomusicologists and neurologists have verified conclusively the inestimable powers of music upon the human organism, including its enormous role in healing, and produced evidence that challenges Pinker’s view (Carroll was an early, powerful response; for a review of subsequent responses see Fromm). In Western culture today, many alternative medical practices exist, indicating a desire for a holistic approach, for the

96. Beaulieu, p. 21

97. Mallove (2001), p. 6

98. Morton (2003).

99. Hamel, p. 38.

100. Pinker, *How the Mind Works*, p. 534.

interconnectedness of mind and body. Helen Bonny and Oliver Sacks have helped move the practice of music therapy from the fringes into the mainstream of medical science. It is now commonly viewed as a vitally integral part of the healing process in places such as hospitals, nursing homes, and psychiatric institutions. The American singer and songwriter Tom Waits speaks of a certain cultural “loss” when he states: “You know, in the old days they said that the sound of the guitar could cure gout and epilepsy, sciatica and migraines. I think that nowadays there seems to be a deficit of wonder.”¹⁰¹

As the ancient Greeks and ancient cultures knew intuitively, the human organism is an interconnected whole of mind/soul and body. They understood the tremendous healing powers of music and its undisputed role as a preventative of disease in the life of the individual and in the lives of societies and communities as a whole. The need for children to be educated in music from an early age is known by modern science and there are movements within our Western culture to that end, including “The Promise of Music” initiative in Venezuela. Music has been drastically reduced in most schools in our culture, with many schools lacking music completely, and apparently over 50 percent of other schools offering some form of music that is taught by teachers who themselves are completely uneducated in music.¹⁰² Thankfully there are organizations here in Canada, including Euterpe (see Chapter Six: The Vision in Action), who are rallying to effect a return to the wisdom of the ancients who knew that music, and the education in it, is a

101. Quoted in Richards, *Life*, p. 519.

102. Ingrid Whyte, Former Executive Director of the Coalition of Education, Toronto, Canada, quoted in Brown (2010).

necessary health-giving element that is vitally important to the individual and to the nation as a whole.

Hazrat Inayat Khan echoes the ancients in his writings: “Illness is inharmony either physical inharmony or mental inharmony. This inharmony is caused by lack of tone and rhythm...the mind and body stand face to face. The body reflects its order and disorder upon the mind, the mind reflecting at the same time its harmony and disharmony on the body. Man is music—life is music.”¹⁰³

An individual need not be in an advanced stage of Parkinson’s disease, or of any illness or disease, to benefit from the curative and sustaining powers of music. Music appears to be a necessity, and evidence suggests a return to the philosophy and practice of the ancients would be beneficial to the health of the nations. One positive idea is that music be taught to all children and be allowed to penetrate their psyche and their souls enabling them to experience an integral oneness and wholeness within themselves through music.

The Greeks suggested that music is innate in our species, and from Darwin to present day scientific findings, a growing body of evidence suggests that this is not unfounded speculation. Further investigation, research, and information gathering are necessary to enable contemporary medical systems to fully consider embracing the power of music as part of a preventative and positive health process. A healing method that may become common practice in future visionary cultures—a means of enriching and

103. Khan, *The Music of Life*, p. 267.

benefiting people throughout their lives thereby creating happier, healthier individuals and nations.¹⁰⁴

104. MacDonald, Kreutze, and Mitchell, pp. 17-31.

Chapter Three. Into the Mystic: The Essence of the Ephemeral “Magic” in Music

3.1 Overview of Chapter Three

Music’s part in human experience extends beyond the emotional and physical effects now being investigated by scientists and the caregiving professions into the realm of mysticism and magic. Thinkers and artists from ancient times to the present have explored the bond of music between human kind, the earthly environment, and the heavens above. Although mysticism and magic are not the focus of the present work, expressions since civilization’s beginnings of the power of these musical bonds must be addressed as they give context to the treatment in other chapters of the palpable—and today measurable—effects of music on people and societies.

3.2 Sound as Signal

Throughout much of the history of artistic creation the role of musical “sound as signal” remains omnipresent. Whether it is Virgil describing the trumpets of Mars signaling war in the *Aeneid*¹⁰⁵ or Van Morrison waiting for the fog horn to announce the moment of “sailing into the mystic,”¹⁰⁶ the reality of change is accompanied by sound and most often that sound is music. The references to this unstated sonic shadowing are seemingly infinite. Kerouac has one of his *On the Road* characters tell of the “old tenor

105. VII. 615-630 in Ruden, trans., *The Aeneid Virgil*, p. 162

106. “Into the Mystic,” by Van Morrison, first recorded 1969.

man” who creates “true relaxation and knowledge”¹⁰⁷ while Shakespeare “sings this to thee: thou single will prove none.”¹⁰⁸ The motif is not limited to the artistic imagination however and there are countless examples of musical markers in the everyday world. These signals are many and varied across many cultures and include conch shells, rams horns (gemshorn), drums in a multiple of sizes and forms, vocal yells, calls, and chants, bagpipes, digeridoos, among other items. Bells, the aural element of signaling over a wide area to a large constituency, were most common to western civilization prior to the invention of electricity and dependent sound media instruments such as telegraph, telephone, loud speakers, radio, TV, the internet, etc. Bells are musically conceived, tuned, and arranged in schema based on pitches matching the acoustic laws of vibration which serve to classify them as music instruments. Their harmonic essence, similar to most musical “machines” known to humanity, is founded on the natural overtone series which Schenker termed *Der Klang der Natur* in his 1906 speculative treatise *Harmony*. Bells, humanity’s sonic timekeepers, marked the regular hours from European church steeples, tolled the death knell of countless human passings, marked royal weddings and coronations, and continued with the annual duty of ringing in the change promised with every new year. Those assembled as revelers on December 31, upon hearing the change respond immediately with the old Scottish tune to mark the temporal change into another large scale beginning of another year which brings all the hope and belief in a better future while also somehow banishing the negatives of the past. Bells signal a change—a

107. (New York: Penguin Books USA, 1976; 1st ed. 1957), pp. 133-34.

108. Sonnet 8.

moment of transition, the passing of the old and the birth of the new. No more exotic use of bells for a spiritually elusive moment are when they are rung to make articulate the miracle of transubstantiation during the Eucharistic service of the Roman Catholic church. Bells do not ring of their own accord. The human imagination demands that sound occur in parallel with change—marking, announcing, encouraging, supporting, proclaiming, and acting as catalyst.

The musical sound of change is sometimes generated by and of nature itself such as when Romeo and Juliet, lamenting the coming dawn, ponder whether the birdsong they hear is that of the lark or nightingale. Spring (birth and re-birth) and summer (life) are universally and everywhere linked to song. This is especially true of spring and the emergence from the grave of winter: “the time of the singing of birds has come” from Song of Songs; and in the medieval Reading rota “Sumer is icumen in llude sing cucu”¹⁰⁹; in Heinrich Heine’s poem, “Als alle Vögel sangen,”¹¹⁰ which Robert Schumann set as part of his 1823 song cycle *Dichterliebe*,¹¹¹ the poet speaks of autumn (decay) and winter (death) as quiet. “All the leaves are brown and the sky is grey” is the opening line from the American popular hit tune “California Dreamin’”¹¹² which links the thematic concept of seasonal change with personal escape—personal depression and sickness of the soul metaphorically represented as winter. The concept of re-birth or new birth—change in some form or manner—leads to the consideration of music as an

109. Booth (1979).

110. Untermeyer, trans. and ed., *Poems of Heinrich Heine*, p. 27.

111. Berton, Singer, Delattres, *Word-by-Word Translations of Songs and Arias*, p. 449.

112. “California Dreamin’,” J. and M. Phillips, best known recording by the Mamas and the Papas in 1965.

essential and required factor or operator in the progression or motion into an alternate state of existence or being. Music serves to open the mind and functions as a method to create exposure to unconscious or sub-conscious fantasies or creative musings and expressions—daydreams. There is a curious similarity to a non-texted incantation. The essence of meaningful communication occurs on some level and this may trigger new visionary thoughts to help recover hidden memories.

3.3 Transformation

As the musical sound serves as a signal indicating the beginning of a shift in time, in being, in mood, in state of existence, so too it serves to facilitate the shift by creating a sonic pathway for the human personality to travel towards a new positive space. This concept is perhaps most evident in the western canon in literature and the visual arts and, most specifically, in poetry and painting respectively, although other forms such as stained glass, sculpture, and prose are also relevant. The roles played by musical angels is well worth consideration for the universality of the theme and the direct relevance to the concept of music being an essential aspect which accompanies transfer of status—even of transmutation not to forget the previously mentioned sacred mystery of transubstantiation.

The role of music as the sound signifier that serves to connect or move the soul and spirit from the physical to the metaphysical is directly linked to the visual images of angels in painting and sculpture throughout the history of western culture. These supernatural beings link heaven and earth and their roles are often directly portrayed as

musical. The obvious link between the birds of the natural world and the artistic representation of angels is worth noting as both have wings, feathers, song and music, serve as messengers, and are travelers able to cover vast areas of physical geography. Birds and angels are elusive, are often “found” in choirs, and answer only to God! This point will be developed further in this chapter.

The regular reference in literature to sound and music to mark passages referring to exotic, extra sensory, strange, magical, eerie, bizarre, supernatural, etc. moments or change or transformation is astounding and remarkably rich and varied. The artistic link between music and the exotic seems an omnipresent theme with sound being an essential element to confirm the strangeness of events. Gerard Manley Hopkins’ mermaids assemble in a half circle and “can make full plaintively a piteous Siren sweetness on the sea, Withouten instrument, or conch, or bell” before returning to the deep.¹¹³ T. S. Eliot’s Prufrock doubts (somewhat hopefully or wistfully?) that the mermaids will sing a love song to him even as his years pass.¹¹⁴ Odysseus has his men lash him to the mast so that he does not succumb to the seductive song of the Sirens thus enabling his ship to pass.¹¹⁵ Shakespeare’s island in *The Tempest*, an altered universe of twilight awakenings, is “full of noises, Sounds and sweet airs” that “make me sleep again” so that once awakening for a second time “I cried to dream again.”¹¹⁶

113. “A Vision of the Mermaids,” in Bridges, ed., *The Poems of Gerard Manley Hopkins*.

114. Eliot, “The Love Song of J. Alfred Prufrock,” *Poetry*6(3) (1915): 130-35.

115. Homer, *The Odyssey*, trans. McCrorie, 12.158-200.

116. *Complete Works of Shakespeare: The Tempest*, III/ii.

Music marks the inner and the outer change but also causes and precipitates change. The illustrious bard sings and Ulysses, sitting among strangers on his journey home from a decade of war at Troy, hides his face and weeps. Upon hearing the bard for yet a second time, he weeps again.¹¹⁷ “Music hath charms to sooth the savage breast.”¹¹⁸ It is clear that when music happens it is a positive force, whether the catalyst was positive or negative. The hills may well be “alive with the sound of music”¹¹⁹ but Maria seems to know that to be able to hear the hills and thus be at one with music is to be alive. Music is vibration and all living things vibrate to their own frequencies—the sympathetic matchings of the fundamental and the upper partials creates the harmonious bond between the mountains and Maria. Is this not the message she teaches to the children and also the medicinal salve she employs to heal Captain Von Trapp back to a full sense of healthy living? Their salvation is in singing together—matching their personal beings (voices) to the harmony of “*der klang der natur.*”¹²⁰

The powerful effects of music on the individual is noted universally and even in the shallowness of popular culture’s dance world believes it possible that “Last Night a D. J. Saved my Life.”¹²¹ The mood change when the lover leaves a relationship (even on a temporary basis) is metaphorically linked to the art form with a phrase such as “how strange the change from major to minor.” However, the vast oeuvre of musical and artistic reference and visual images speak of a higher and more elusive change—that of

117. Homer, *Odyssey*, 8. 62-97, 530-48.

118. William Congreve (1670–1729), “The Mourning Bride,” *I/i*, in *Bell’s British Plays*, p. 13.

119. “‘The Sound of Music’ (1965).”

120. *Ibid.* This is Schenker’s term from *Harmony* (1906).

121. “Last Night a D. J. Saved My Life,” Michael Cleveland, recorded by Indeeep, 1981.

moving or travelling from the worldly or physical state of being to one of the heavenly or spiritual state—from the heaviness of the human condition to the lightness of communing with the divine in some mystical, if temporary, sonically enhanced transformation. Music lifts, moves, transports the listener out of their gravity bound body and tired existence into a higher plane of reception, existence, or awareness of being. This “condition of transformation” is articulated and presented in countless representations (in text and visual media) over many centuries.

Perhaps the most universally known example of the link between the spiritual or heavenly space and the natural world is the angel choirs singing at the Nativity of Christ. “Angels We have Heard on High” and “Hark! The Herald Angels Sing” are but two of the many such references found in carols known to every mall shopper. These examples mark or celebrate the movement from the heavenly to the earthly (God made flesh or divinity merging with the human form to become one) yet the opposite motion is far more commonly depicted. No matter the direction, the “integrated relationship” is universally offered. Emily Dickinson writes of “the fascinating chill that music leaves” as it refers to or represents “to something upper wooing us.”¹²² Rilke refers to the “holy departure”¹²³ and Dryden links the high and the low with “from harmony, from heavenly harmony this universal Frame began”¹²⁴ while Robert Herrick refers to music as “thou

122. Poem 1480, in Thomas H. Johnson, ed., *The Poems of Emily Dickinson*, vol. 3: 1023-24.

123. “To Music,” in Stephen Mitchell, ed., *The Selected Poetry of Rainer Marie Rilke*, p. 147.

124. “A Song for St. Cecilia’s Day, 1687,” in Arthur Quiller-Couch, *The Oxford Book of English Verse 1250-1900*, p. 467.

Queen of Heaven” and asks it to help him take “flight for heaven.”¹²⁵ George Herbert believes that if traveling in music’s company “You know the way to heavens doore”¹²⁶ while Pope claims that music does “antedate the bliss above”¹²⁷ and Milton claims music will dissolve him “into ecstasies, and bring all heaven” before his eyes.¹²⁸ Da Vinci remarked that “our soul is composed of harmony.”¹²⁹

There is a long history referring to the idea that music can move us, enable us to travel to a different spiritual state, a different consciousness, and can effect transformative experiences and reactions within us. Much of this concerns things we cannot explain, define specifically, or about which we cannot gather empirical or scientific data. I have touched upon this in previous chapters and in this chapter I provide evidence of the spiritual, as separate from the psychic, experiences that link music to health and well-being. The topic of music and mysticism is outside the scope of my dissertation, but mysticism in music has existed for thousands of years and is not an area that is possible to measure empirically, at least not in conventional ways. Providing a variety of examples is meant to include the inexplicable as part of what can affect us spiritually and emotionally in a positive way and thereby in a healing way, healing having many facets.

125. Poem 225 in “To Music: A Song,” in Frances Tuner Palgrave, ed., *Chrysoloma: A Selection from the Lyrical Poems of Robert Herrick*, p. 160.

126. “Church Music,” in H. C. Beeching, ed., *Lycra Sacra: A Book of Religious Verse*.

127. “Ode for Music on St. Cecilia’s Day,” in William Roscoe, *The Works of Alexander Pope, Esq.*, p. 242, line 123.

128. “Il Penseroso” in Samuel Thurber, ed., *Milton Minor Poems*, p. 22, lines 166-67.

129. “The reply of King Mathias to a poet who competed with a painter,” in Jean Paul Richter, *The Literary Works of Leonardo Da Vinci*, vol. 1: 66.

All ancient authors concur that Orpheus had miraculous powers and that his music played on the lyre could

move stones and trees, charm beasts and even receive obeisance from the “mountain tops that freeze”...a sweet music arose from the trees, a melody arising from their contact as the breeze whispered through them. The highest, middle, and lowest branches produced, (said the fifth-century poet Martianus Capella), the basic intervals of octave, fifth, fourth, and whole-tone, thus pouring forth, “with melodious harmony, the whole music and song of the gods.”¹³⁰

Pythagoras conceived of the universe as a musical instrument, with everything being a manifestation of the underlying frequencies of “sacred sound” or sonic vibration. The “Music of the Spheres”¹³¹ has created a lasting impression and the concept of the universal vibrating instrument relates to the divine nature of the vast, ever vibrating cosmos. Joscelyn Godwin states that there is unheard music all around us and that it permeates our bodies: “sound and aether are the very first manifestations of objective consciousness...the first in the hierarchy of being... The primal, aetheric sound is perceived directly by the receptive mind.” All matter vibrates on a continual basis.¹³² In the poetry of Lord Byron (1788–1824) we find a tidy summation:

There’s music in the sighing of a reed;
There’s music in the gushing of a rill;
There’s music in all things, if men had ears;
Their earth is but an echo of the spheres.¹³³

The French Romantic writer François de Chateaubriand (1768-1848) expands upon the concept of music in sympathy with nature and divine love.

130. Godwin, *Harmonies of Heaven and Earth: Mysticism in Music from Antiquity to the Avant-Garde*, p. 8.

131. See “Chapter Two: Origins and Lineage” above.

132. Godwin, p. 6.

133. *Don Juan*, “The Fifteenth Canto.”

Music never ceases in these places: music which one hears everywhere but which is nowhere; sometimes it is a murmuring like that of an Aeolian harp which the soft breath of Zephyr strokes on a night in a divine (glass)-harmonica, those vibrations which have nothing terrestrial about them and which swim in the middle region of the air. Voices, brilliant modulations, suddenly break from the depths of the celestial forests, then dispersed by the breath of the Spirits these strains seem to have expired. But soon a confused melody revives afar off, and one distinguishes perhaps the velvet sounds of a horn wound by an angel, or the hymn of a seraph who sings the splendours of God on the banks of the River of Life ... The ether, so subtle, would still be too material for this place; the air one breathes is divine love itself: air which is like a sort of visible melody which fills all the white plains of souls with splendour and harmony alike.¹³⁴

Godwin refers to “transcendent principles which have a perpetual existence in a higher order of being.”¹³⁵ Once again the transformative aspect is articulated.

In the Hindu philosophy *Samkhya*, sound is considered to be the parent of the five elements: air, fire, water, earth, and ether. Ether (aether—akasa) is the fifth element out of which the universe emerged into consciousness, a sense of selfhood. Ether “is transformed into subtle matter, vibratory, radiant and instinct with energy, and the tanmatras (subtle essences) of sound, touch, colour, taste and smell arise.”¹³⁶

British composer Cyril Scott wrote, “Music has always played and continues to play a very important part in affecting the development of the subtler bodies, the aura, and the three domains of the mental, emotional and physical bodies of humans.”¹³⁷ Scott describes the subtler bodies as the “aura or auric egg” which surround the physical body.¹³⁸ Many people tend to refer to this idea of “aura” as mood or feeling. “The art of

134. Godwin, p. 66.

135. Ibid., p. 5.

136. Ibid., pp. 5-6.

137. Scott, *Music: Its Secret Influence Throughout the Ages*, p. 114.

138. Ibid., p. 113.

music ... is operative in two ways—grossly and subtly; on the physical plane “heard strains” by their charm possess the power to “soothe the savage beast,” while “unheard strains” possess hidden powers of a “telepathic” nature which affect our subtler bodies directly or through the “emotional atmosphere,” and so educate the “soul.”¹³⁹

Robert Fludd (1574–1637), the English physician and theosopher wrote: “The Sun or Apollo ... showers down each year the ‘notes and harmonious sounds of his lyre into the aethereal matter concealed in earth and sea.’ These ‘tones’ remain concealed in creatures, as fire lies hidden in wood, whence whoever can strike a light or apply another fire can bring it forth.”¹⁴⁰ Godwin claims that the word “Spirit” “... tends to mean the most divine part of the human being, equivalent to the Greek Nous or Higher Intellect, hence superior to its companions Soul and Body. The other meaning ... is of something far lower on the scale of being that is neither body nor soul but in some way unites them...*spiritus* or ‘spirits’.” Typically regarded as invisible, *spiritus* has been described by the mystical philosopher “... as a luminous substance, varying in quantity and quality from one person to another.”¹⁴¹

The Renaissance Platonist Marsilio Ficino (1433–99) maintained that music is one of the best ways of improving the *spiritus*: “This is because the medium of sound, air, is the most similar to its substance ... Musical sound by the movement of the air moves the body: by purified air it excites the aerial *spiritus* which is the bond of body and soul:

139. *Ibid.*, p. 116.

140. *Ibid.*, p. 16.

141. *Ibid.*, pp. 16-17.

by emotion it affects the senses and at the same time the soul.”¹⁴² Spiritus was considered to act as the link between the body and the soul and that singing helps augment the *spiritus*. Scott speaks of the Hermetic philosophy and the maxim: “As above, so below.”¹⁴³

What is actually heard of music is only its physical manifestation consequent upon its vibrations; these pertain to the ‘below’...we only perceive the effects of those musical vibrations on the physical plane, but we do not perceive the much farther-reaching effects created by that music on the higher planes; and it is just these, pertaining to the ‘above’, which influence our various subtler bodies (and hence our characters) ...¹⁴⁴

For Scott and for others,¹⁴⁵ the “other world” of spiritual intelligences range from the most basic things in nature to the highest cosmic archangels.¹⁴⁶ Entry into the angelic world or Devachan (deva means angel in Sanskrit), can only happen when one has achieved a degree of spiritual consciousness.¹⁴⁷ The ordinary person is not typically cognizant of or conscious of the presence of Devas, these subtler bodies. Karlheinz Stockhausen (1928-2007) in *Towards a Cosmic Music* writes that humans are “spirits, and spirits should establish a link with the supra-human, with the cosmos, with God.”¹⁴⁸ He believed that some music serves that specific function and much of his artistic process was involved with seeking out the exotic and the unique sounds of alternative pathways.

142. Ibid., p. 17.

143. Scott, p. 114.

144. Ibid., pp. 114-115.

145. Rudolph Steiner, in Godwin, p. 67.

146. Scott, p. 110.

147. Godwin, p. 67.

148. Stockhausen, *Towards a Cosmic Music*. p. 54.

Many ancient legends from many cultures and traditions speak of the “music of the sirens.” The sirens’ music was known to have unusual attractive powers, to be enchanting and inspirational.¹⁴⁹ Linda Phyllis Austerna and Inna Naroditskaya in their book *Music of the Sirens* speak of the ancient belief that “... music could draw the soul from the body and make it return to heaven—earthly music reminding the soul of heavenly music”¹⁵⁰ The music of the sirens embodies the idea of transition, of transformation and of connection between different realms or levels of being.¹⁵¹ “The Western siren, relegated to the flowing reaches between air and sea, life and death, noon and night, and body and soul, has been granted numerous metamorphic qualities since ancient times...she was the very power of transformation ...”¹⁵²

World harmony and Platonic sirens were long associated with Christian tradition with the nine hierarchies of angels governing the celestial spheres. This theme occurs in many 16th and 17th century poems such as the following by the Gascon Huguenot courtier and poet Guillaume de Saluste Du Bartas (1544–1590).

For (as they say) for super-Intendent there,
 The supreme Voice placed in every Spheare
 A Syrene sweet; that from Heav’ns Harmonie
 Inferious things might learne best Melodie:
 And their rare Quier with th’ Angels Quier accord
 To sing aloud the praises of the Lord.¹⁵³

149. Austern and Naroditskaya, *Music of the Sirens*, p. 251.

150. *Ibid.*, p. 142.

151. *Ibid.*, p. 133.

152. *Ibid.*, p. 84.

153. *Ibid.*, p. 143.

Non-religious poems also speak about the celestial voices of the Sirens, as in Bloom's meditation in James Joyce's masterpiece of modernist literature *Ulysses*:

Sea, wind, leaves, thunder, water, cow lowing, the cattle
market, cocks hens don't crow, snake hisss. There's music everywhere
That's joyful I can feel. Never have written it. Why? My
Joy is other joy. But both are joys. Yes, joy it must be. Mere
fact of music show you are.¹⁵⁴

Thomas Moore's 1846 poem "The Origin of the Harp" supports the idea further:

Tis believ'd that this Harp, which I now wake for thee,
Was a Siren of old, who sung under the sea;
And who often, at eve, thro' the bright waters rov'd
To meet, on the green shore, a youth whom she lov'd.

But she lov'd him in vain, for he left her to weep,
And in tears, all the night her gold tresses to steep:
Till heav'n look'd with pity on true-love so warm,
And chang'd to this soft Harp the sea-maiden's form.

Still her bosom rose fair—still her cheeks smiled the same
While her sea-beauties gracefully form'd the light frame;
And her hair, as let loose, o'er her white arm it fell,
Was changed to bright chords, utt'ring melody's spell.

Hence it came, that this soft harp so long hath been known
To mingle love's language with sorrow's sad tone:
Till thou didst divide them, and teach the fond lay
To speak love when I'm near thee, and grief when away.¹⁵⁵

Austerna and Naroditskaya note that this poem by Moore points to why the human head is carved onto many old European musical instruments, the Irish Harp included, but "also grants supernatural power to the music that would have accompanied

154. *Ibid.*, p. 53.

155. *Ibid.*, pp. 86-88.

it. Flowing over the ears like seawater, like the sound from the shells shown around the siren's body ... this is music that touches the hearer powerfully and beyond rational response ... this is the music of enchantment, of change from one state to another.”¹⁵⁶

3.4 Music in the Visual Arts

There are countless writings and paintings, wood-carvings, stained glass, and sculptures depicting music in heaven and musician angels and music which takes one to angelic realms, all believing harmony to be the universal condition of all of God's creations, from the Seraphim through to our individual intelligence.¹⁵⁷ Margaret Barker, in *An Extraordinary Gathering of Angels*, describes angels as being “unseen forces in the creation...they are means by which we can know something of God ... Angels act as messengers for humans ... Angels transmit light, love and knowledge.”¹⁵⁸ The idea is fundamental—that there is both the visible and the invisible and the invisible is hidden from, and thus often ignored by, humans.

In the 19th century painting *Dante's Vision of the Circles of Heaven*¹⁵⁹ by the French artist Gustave Doré, “The angels are the invisible part of the cosmic covenant, the web of creation centered on God. They are the pattern of creation and their music is harmony.”¹⁶⁰

156. Ibid., p. 88.

157. Godwin, p. 67.

158. pp. 10, 49.

159. “Illustration to Paradiso, Divine Comedy”

160. Barker, p. 164.



Figure 1: *Dante's Vision of the Circles of Heaven*, Gustave Doré (1832-1883), Illustration to *Paradiso*, *Divine Comedy* [Public domain], via Wikimedia Commons

Angel music expresses the ideas of unity and harmony in creation. This music is in praise of the Creator, and acknowledges God as the source of everything. Barker writes: “Music made the presence of God appear on earth, and in the temple liturgies, music was used to invite the presence of the Lord ... Angel music was part of the process of creation, and showed its harmony... Angel music was often associated with healing and renewal, recreation.”¹⁶¹ Wisdom was known to be heavenly knowledge and Wisdom transformed people.¹⁶²

In the late 15th century painting, *Mary, Queen of Heaven, Master of the St. Lucy Legend*, “Mary is depicted as Wisdom ... As Wisdom, she holds all things in harmony, and is thus surrounded by angel musicians ... Above her, the musicians of heaven play before the Trinity, and wait to receive her into their throne, when her music will join again with that of heaven ...”¹⁶³

Oliver Strunk’s *Source Readings in Music History, From Classical Antiquity through the Romantic Era*, quotes from Joannes Tinctoris’s *Liber de arte contrapuncti* (The Book of the Art of Counterpoint, 1477):

To His Most Serene Highness the King of Sicily: “Though I have heard Wisdom herself cry out: ‘I love them that love me, and those who keep watch for me will find me’ ... I confess that as yet I have scarcely swallowed a single drop from her fountain ... I have decided to set down in full...of the art of counterpoint for the benefit of all students of this honorable art ...”¹⁶⁴

161. Ibid., pp. 166-67.

162. Ibid., p. 20.

163. Ibid., pp. 160-61.

164. p. 197.



Figure 2: *Mary, Queen of Heaven, Master of the St. Lucy Legend, Late 15th century* [Public domain], via Wikimedia Commons

Angels make heavenly music. Barker writes about Enoch who heard “marvelous singing of the angels which it is impossible to describe”¹⁶⁵ when on his ascent through the heavens.

In holy music’s golden speech
Remotest notes to notes respond:
Each octave is a world; yet each
Vibrates to worlds its own beyond.

165. Barker, p. 160.

Our narrow pale the vast resumes;
Our sea-shell whispers of the sea:
Echoes are ours of angel-plumes
That winnow far infinity!
(Aubrey Thomas De Vere from "Implicit Faith"¹⁶⁶)

At last surrounds their sight
A globe of circular light,
That with long beams the shame-fac't night array'd
The helmed Cherubim
And sworded Seraphim
Are seen in glittering ranks with wings displaid
Harping in loud and solemn quire,
With unexpressive notes to Heav'ns new born Heir.

Such musick (as 'tis said)
Before was never made,
But when of old the sons of morning sung,
While the Creator Great,
His constellations set,
And the well-balanc't world on hinges hung,
And cast the dark foundations deep
And bid the weltring waves their oozy channel keep.

Ring out, ye Crystall sphears,
Once bless our human ears,
(If ye have power to touch our senses so)
And let your silver chime
Move in melodious time;
And let the Base of Heav'ns deep Organ blow;
And with your ninefold harmony
Make up full consort to th' Angelike symphony.
(John Milton, "Hymn on the Morning of Christ's Nativity"¹⁶⁷)

166. Ibid., p. 162.

167. Ibid., p. 165.



Figure 3: *Adoration of the Magi* (detail), Domenico Ghirlandaio (1449-1494) [Public domain], via Wikimedia Commons

In the detail shown from *Adoration of the Magi* (1488) by the Italian artist Domenico Ghirlandaio¹⁶⁸ the four Angels who float above the stable of the nativity hold out a musical scroll with the words “Gloria in excelsis deo” as if inviting the human viewer to take part and share in the song of praise to God.

Margaret Barker presents detail from *Musical Angels* (a work also known as *Glory of Angels*) painted in 1535 by the Italian artist Gaudenzio Ferrari¹⁶⁹ in the cupola in the Sanctuary of Sarnonno as an expression of “Angels and Cosmic Harmony.” Psalm 150, “The holy of holies was the source of all life and the place of angel harmony,” exhorts musicians to praise the Lord in his sanctuary, with trumpets, lutes, harps,

168. Ibid., pp.140-41.

169. Ibid., pp. 156-58; the illustration reproduced here is from Bussagli, *Angels*, pp. 370-71, who discusses the same work, under the title *Glory of Angels*.

timbrels, strings, pipes and cymbals. Angel musicians are traditionally depicted in the sanctuary of a church, which corresponds to the holy of holies.¹⁷⁰ According to art historian Marco Bussagli, “The cupola decorated by Gaudenzio Ferrari is an immense fresco with God the Father in the centre, surrounded by flaming seraphim. All around are the cherubim, little blue-winged putti. The rest of the angels reproduced in this detail are playing the music of the cosmos. The Platonic concept of the harmony of the spheres, conceived as sirens that each sing one tone on the planetary orbits, was adapted to Christian thought, which replaced the sirens with angels, who now sing the harmony of the universe for God’s glory. It is a heavenly music that has nothing in common with human music; for this reason Ferrari has added to real instruments purely fanciful ones that cannot be played.”¹⁷¹

“Concert of Angels” (c. 1515), a detail from the Isenheim Altarpiece, by the German artist Matthias Grunewald,¹⁷² illustrates the idea, expressed by Bishop Basil of Sergievo: “The role of the angels is to bind this visible world—and us with it—to God.”¹⁷³ “No clouds gathered in the skies and the polluted streams became clear, whilst celestial music rang through the air and the angels rejoiced with gladness...for the creation engulfed in the ocean of pain was now to obtain release” (Gautama Buddha).¹⁷⁴

In Western History alone, there are countless examples of paintings depicting angels with musical instruments, all portraying the connection of music with the heavens,

170. Ibid., p. 159.

171. Bussagli, pp. 370-71.

172. Barker, p. 158.

173. Ibid., p. 25.

174. Ibid., p. 37.

with a higher being, God, with angels and cherubims depicting the heavenly, celestial music of the spheres. The *Celestial Hierarchy of Dionysius* shows nine ranks or choirs of angels, as portrayed in the painting: *The Adoration of the Shepherds with Angels*, Lorenzo Costa, c. 1449, Italian: The nine ranks of angels, linking heaven and earth, gather to celebrate with heavenly music the birth of Christ.¹⁷⁵

At Christmas there are hymns with angels rejoicing about the birth of Christ such as Felix Mendelssohn's "Hark The Herald Angels Sing"¹⁷⁶ and "It Came Upon The Midnight Clear" (traditional), and "Angels We Have Heard on High" (traditional English Carol).¹⁷⁷ There are also countless stained glass windows in chapels, churches, and cathedrals depicting angels as protectors, singers, and guardians¹⁷⁸ for example, and many of the angels are shown playing a variety of musical instruments.

In the detail from the 15th century painting *Angel Musicians* by the Flemish artist Hans Memling,¹⁷⁹ angel musicians, wearing various types of church vestments, recall the role of the priests and Levites in Solomon's temple, who had golden instruments to make music and invoke the presence of the Lord on earth.

Angels we have heard on high
Sweetly singing o'er the plains,
And the mountains in reply
Echoing their joyous strains:
Gloria in excelsis Deo,
Gloria in excelsis Deo.

(Anonymous, "Angels We Have Heard on High," traditional English carol)

175. Barker, pp. 50-51.

176. Ibid., p. 108.

177. Refer to Ensemble Vivant's CD *Christmas Tidings* for example.

178. Barker, p. 109.

179. Bussagli, pp. 364-65.



Figure 4: *Angel Musicians* (detail), Hans Memling (1430-1494) [Public domain], via Wikimedia Commons

In the detail from *Christ Glorified in the Court of Heaven* (1423-24) by the Italian artist Fra Angelico, the angels rejoice because Christ has been raised from the dead and returned to heaven, to the center of cosmic harmony.¹⁸⁰

St. Cecilia, a martyr of the Roman church, and depicted here by the early 17th century Italian artist Orazio Gentileschi, was venerated as early as the fourth century CE when the Academy of Music was founded in Rome in 1584. She was made its patron, and

180. Barker, pp. 176-77.

is now the patron saint of music and most especially church music. She is usually depicted with an organ, but here an angel teaches her to play the spinet.¹⁸¹



Figure 5: *St. Cecilia playing the spinet with angel*, Orazio Gentileschi (1563-1639) [Public domain], via Wikimedia Commons

In the late 15th century Italian painting, *The Ascension of Christ*, from Perugino, “Christ surrounded by the bodiless powers—the cloud of Glory—ascends to heaven, where the music of the angels will welcome him. Two angels look down and speak to Mary and the disciples, saying that the Lord will return from heaven in the same way.”¹⁸²

St. John saw seven angels standing before the heavenly throne. As each angel sounded his trumpet, one woe fell upon the earth. In this 10th century Spanish depiction

181. *Ibid.*, pp. 180-81.

182. *Ibid.*, pp. 298-99.

from the Beatus of Liebana (The Escorial Beatus) with the second trumpet, “a mountain burning with fire is thrown into the sea, and a third of the ships were destroyed. The trumpet was a signal for holy war. Since a mountain was the symbol of a great ruler, the burning mountain which here falls into the sea was probably Mark Antony, the Roman ruler defeated at the naval battle of Actium in 31 BCE. The sea was turned to blood, the ships were destroyed, and the living creatures—his men—died in the sea.”¹⁸³

“For the Lord himself will descend from heaven with a cry of command, with the archangel’s call, and with the sound of the trumpet of God” (Thessalonians 4).¹⁸⁴

In human life we speak of having inspiration, of an inspired idea. Barker writes, Even those who have no place for angels in their worldview admit that their inspiration is given to them and comes from a source outside themselves, so that they see the familiar in a new way. They are conscious of an external source for their ideas...the Spirit comes to a person—that is what inspiration means—and something new appears.¹⁸⁵

Barker writes that it is the angels who bring the divine gift of creativity.¹⁸⁶

“Angels are the invisible powers, and the guardian angels link their charges to the invisible world, teaching and guiding.”¹⁸⁷ Many artists acknowledge that their inspiration is from an external source. In *L’Art Celeste* (1894) by the French artist Odilon Redon, a musician hears, and we assume writes down, music from heaven.¹⁸⁸

“The harmony in heaven ... had to be copied by the rest of the creation if there was to be peace and harmony on earth.” In Western classical music, “Glory to God in the

183. Ibid., pp. 310-11.

184. Ibid.

185. Ibid., p. 382.

186. Ibid.

187. Ibid., p. 383.

188. Ibid., pp. 384-85.

highest and peace on earth to men of good will” is represented in the Te Deum Laudamus, a Latin Christian hymn with this theme, written in the 5th century by Niceta, a bishop in Dalmatia and it joins the worship of heaven to the praises of the earth. The hymn of the Angels, Thrice Holy Hymn unites heaven and earth as well as past, present and future time and eternity.¹⁸⁹ These themes are well illustrated by *Phases of the Moon* from *The Celestial Atlas*, or *The Harmony of the Universe* (1660–1661) by the Dutch artist Andreas Cellarius,¹⁹⁰ and by *The Seven Angels with the Harps of God*, a detail from The Apocalypse of Angers tapestry (1375–1378) by the Flemish artist Nicholas Bataille.¹⁹¹

The veil separating the visible from the invisible also separates time and a state without time. Mystics speak of timeless moments where revelations have occurred.¹⁹² Creators from all professions often have trouble describing how inspiration came to them, but will acknowledge that the source of their creativity, of their inspiration came from outside of themselves.¹⁹³ Angels can be perceived by any of our human senses, although people who recount having experienced an angel have typically not seen the angel but rather felt a presence. The inexplicable is hard to depict. Barker says: “there are practical difficulties in conveying a sense of perfume or ethereal sound, a warm unfolding presence, a particular taste sensation, or a moment of spiritual or intellectual illumination.

189. Ibid., p.139.

190. Ibid., p. 38.

191. Ibid., pp. 14-15.

192. Ibid., p. 16.

193. Ibid., p. 406.

The most familiar angels are therefore those in pictures ... The Bible has many accounts of angels being perceived but not seen.”¹⁹⁴

There are so many writings and paintings, wood-carvings, stained glass, and sculptures depicting music in heaven and musician angels and music which takes one to angelic realms, all believing harmony to be the universal condition of all of God’s creations, from the Seraphim through to our individual intelligence. In 1747, Johann Mattheson (1681–1764) firmly believed this and wrote: “heavenly music can and must be far superior to anything we can imagine.”¹⁹⁵

Michael Alec Rose, in *Audible Signs*, suggests that music “inspired pioneering abstract painters like Kandinsky, Mondrian and Kupka.”¹⁹⁶ “Music releases us from the oppressive presence—or willful absence—of referential image in the other arts (including the written word). Music stands as the most powerful dissolution of the “conventional distinction between form and subject-matter.”¹⁹⁷ Although humans cannot hear the Music of the Spheres, Rose suggests that there is some empirical evidence for “ever-present radiance of audible signs in music of all kinds—always with the help of the allied arts.”¹⁹⁸

Godwin writes about three main levels of musical and artistic inspiration, the highest being the “avataric,” then the spiritus and then the creativity that emerges from

194. *Ibid.*, p. 19.

195. Godwin, p. 62.

196. Rose, p. 3.

197. *Ibid.*, p. 4.

198. *Ibid.*, p. 5.

the person's subconscious.¹⁹⁹ "When in my most inspired moods, I have definite compelling visions, involving a higher selfhood. I feel at such moments that I am tapping the source of infinite and eternal energy from which you and I and all things proceed. Religion calls it God" (Richard Strauss).²⁰⁰

Scott speaks of composers who have "the spiritual altitude of the Devas."²⁰¹ One such composer was César Franck whose music Scott considered to be Deva-inspired, connecting the mortal with the celestial."²⁰² Vincent d'Indy wrote: "In a word, it leads us from egoism to love...from the world to the soul, from the soul to God."²⁰³ Scott also speaks of the devic quality shining in Debussy's and Scriabin's music in a variety of ways.²⁰⁴ Of Mozart's Serenade for Winds in B Flat Major (Gran Partita, K. 361), the character of Salieri in the movie "Amadeus" comments: "This was a music I'd never heard. Filled with such longing, such unfulfillable longing, it had me trembling. It seemed to me that I was hearing the voice of God."²⁰⁵ The late Professor Godfrey Ridout²⁰⁶ of the Faculty of Music at the University of Toronto was heard to say on many occasions that the slow movement of Mozart's clarinet concerto was composed not by Mozart, but by God!

199. Godwin, pp. 77-78.

200. Ibid., p. 75.

201. Scott, p. 119.

202. Ibid., p. 121.

203. Ibid.

204. Ibid., p. 129.

205. Rose, p. 10.

206. As reported to the author by various individuals who studied under Ridout such as Michael Coghlan and Patricia Wait.

Spiritual transformations occurring through music are anything but a new phenomenon. There is a cathartic process while listening to and experiencing the suffering and pathos conveyed through the music and this catharsis is indeed therapeutic. The Mozart Serenade for Winds in B Flat Major just referred to is an example that music that affects spiritual transformations does not have to be religious music per se, such as a chorale prelude by Bach, for example, singing to the Glory of God.²⁰⁷ The Chorale especially “provided Bach both with a glimpse of heavenly life ... Like his earlier mentor Dietrich Buxtehude, Bach may have kept alive the dream of joining the angelic choir (or ‘concert’) after death, seen by many at the time as the privileged gateway to heaven for musicians.”²⁰⁸ Music sung by the angelic choir was considered to be quite beyond the understanding of humans, but composers of tremendous, unparalleled musical imagination such as Bach did try to replicate it.²⁰⁹ Bach also produced an unparalleled opus of music that continues to provide solace to one and all, bereaved or otherwise. Bach personally believed that a path existed beyond human life to a life of harmonious existence. He adhered to the philosophy of and recognized “the role of music in transporting believers to that ideal as part of the *ars moriendi*.”²¹⁰

In the Shabda-yogin world, it is said that “Those who cultivate the art of music are preparing themselves a path through the heavens to the place of the Blessed, just as

207. Ibid., pp. 50, 59.

208. Gardiner, *Music in the Castle of Heaven: A Portrait of Johann Sebastian Bach*, pp. 553-54.

209. Ibid., p. 554.

210. Ibid., p. 555.

surely as the most powerful geniuses. And the choir of divine singers exhorts the soul which rises to accomplish this ascent.”²¹¹

There is a wealth of examples of great music that has been known to penetrate deep into the human psyche. The Largo from Joseph Haydn’s String Quartet in G Minor, op. 74, no. 3, for example, became a model of slow movements “... as a site of special depth, truth, or spirituality, corresponding to the social idea that these qualities are to be found in the unique interior of the individual independent of both sacred and mundane norms. The Adagio from Beethoven’s “Moonlight Sonata” is another example.²¹²

Rose in *Audible Signs* writes about the enduring power of great music:

The great music of any time or place
has a deathless spirit.
Such music is as fresh today
as it was
when the notes were still wet
on the page or on the lips
It’s language is
Above all
intuitive,
irrational,
in touch with
the least accessible sources
of human feeling.
Differences in historical style
bear witness to the spirit,
showing how supple it is
and how variously it can be
embodied.
A Bach prelude
and a Debussy prelude
are separated

211. Godwin, p. 61.

212. Chapin and Kramer, *Musical Meaning and Human Values*, pp. 61-62.

by almost two centuries,
but they are closer to each other
than we are
to yesterday's newspaper.
The dates on the composers tombstone
do not matter,
for deathless music
always inhabits the present...
No, no! It's more than that!
Enduring art of any sort
is nothing less than the present—
the one reality that never can be past or future.
Whenever we love,
whenever we suffer
or enjoy—
and when, in the end, we die—
the spirit precedes us,
leads us,
buoys us
enfolds us.
Some people call the spirit
God.
Music
needs no name for it.²¹³

Music can help the individual and the collective consciousness bear what is truly unbearable and can somehow make us feel closer “to that nether realm where we store our shadows.” Rose reminds us that “A *daimon* in Greek is a spirit who attends you and opens your mind to the strange and the new. It guides your actions and tempers your thought ...”²¹⁴

In *Musical Meaning and Human Values*, Lawrence Kramer speaks about the transformative moment of transcendence, as consisting

213. Rose, pp. 132-33.

214. *Ibid.*, p. 138.

... of an experience of elevation or sublimation limited by, and perceived together with, the unexhausted remainder of the initial distress. Music, because one and the same music so readily associates itself with different and often divergent states of mind, provides an ideal medium for working out—or failing to work out—this ambivalence ... at such a moment music becomes the tangible embodiment of narrative excess by virtue of the excesses basic to musical expression.²¹⁵

Kramer says that “Music allows human beings to experience the mysteries of animation, to allow their participation in imbricating orders to rise above the mechanical, and ultimately to achieve the semblance of immediacy.”²¹⁶

Keith Chapin, in *Musical Meaning and Human Values*, speaks of E. T. A. Hoffmann who believed that “... musical order serves as a symbol for political order.”²¹⁷ Hoffmann said: “Music opens to man an unknown realm.” He described Beethoven’s Fifth Symphony as being “true music from the other world.”²¹⁸ Hoffmann, notes Chapin, wrote about music severing an individual from everyday life, having the ability to induce a sublime experience for the individual: “He or she finds refuge in moods prejudicial to intuition and often associated with interiority: exaltation, melancholy, yearning.” All of this allows an individual to turn away from ordinary daily life. For Hoffmann, music elicited moods that are linked to one’s instincts and intuitions.²¹⁹

The French composer and Catholic mystic Olivier Messiaen wrote in 1977 about one type of music that can effect this liberation: “Plainchant alone possesses all at once

215. Chapin and Kramer, pp. 3, 5.

216. Ibid., p. 45.

217. Ibid., p. 33.

218. Ibid., p. 47.

219. Ibid., p. 51.

the purity, the joy and the lightness for the soul's flight towards Truth."²²⁰ Certainly monastic orders daily singing of plainchant has been their way of life for centuries and is considered to be therapeutic for both singers and for listeners. "It is a vehicle that can take one as high as one is capable of going ... entry into 'those temples in the high spheres that can be opened through song only.' For the seven notes of the modes can be heard as the notes of the planets, the wandering of the melody through them felt as a journey around the spheres."²²¹ In the Jewish tradition, the "Hasidic song is an emotional outpouring ... of the soul to God, capable of transforming the soul of the singing worshipper to such an extent that definite stages of a mystic approach to God could be reached, stages which otherwise were most difficult to attain."²²² And for the Sufis, music is one of the strongest features of their religion, the *samā*. The Persian poet Rūmī (1207–73) wrote:

We all have been parts of Adam, we have heard those melodies
in Paradise.
Although the water and earth of our bodies
have caused a doubt to fall upon us,
something of those melodies comes back

to our memory.
(Mathnawi, IV, 736-7 CE)

Karlheinz Stockhausen (1928–2007), in his book *Towards a Cosmic Music*,

writes:

at the moment of composing and playing, thinking is dedicated in a completely new way to service of a higher inspiration...and open oneself up to

220. Godwin, p. 53.

221. Ibid., p. 54.

222. Ibid., p. 56.

intuition...playing purely intuitively is an innovation in all traditions...It goes far beyond improvisation...Musicians need consciousness of the fact that someone thinks it important to listen to them. The public must transmit its gratitude for the musicians' playing. Only that makes possible our establishing contact with the spiritual realms of intuition or even enlightenment...a lonely pianist on the platform is dependent on his audience's tranquility and attentiveness ... musicians derive intuition from the public's response ... when people in the hall meditate and are involved in a transformation of their lives ... entailing intense contact with spiritual realms ... human beings can be capable of emitting currents of intuitive energy...in order to establish contact, by way of the inner senses, with cosmic energies, and to devote themselves, by way of the outer senses, to tonal vibrations ... it involves levels of human spirituality and the question of how far a person has proceeded beyond his animal needs.²²³

True musicians do follow a higher voice, an awareness of what they are really

living for:

... to attain a higher life, allowing the vibrations of the universe to penetrate our individual human existence. Musicians must prepare the way for arrival of the higher human being concealed within ourselves, setting in motion the entire body right down to its least part so that everything becomes relaxed and receptive to the vibrations of the highest consciousness.²²⁴

Stockhausen believed that one does not only exist for him or herself. One's purpose in life should be to develop as perfectly as possible the talents with which one has been born. In so doing, one can give something meaningful to others. When born with special gifts and talents that consistently communicate something meaningful to others, that response is of course extremely important and a great reward and joy for the composer or performer, for example.²²⁵ He notes: "in the midst of humanity there exist beings who are far superior in all respects to everything else—not just in the way they

223. Stockhausen, pp. 36-37.

224. Ibid., pp. 45-46.

225. Ibid., p. 52.

live and behave but also with regard to what they really can *do*. The arts certainly also reflect this entire process.”²²⁶ “Throughout my life I’ve been convinced that an angel constantly guides me. The angel involved has also changed along with the tasks I’ve set myself and which I’ve been set—unforeseeably as the outcome of new means and turning-points in my life...my angel is highly experienced in musical issues.”²²⁷

Margaret Barker cited Christopher Rowland, Dean Ireland’s Professor of Exegesis of Holy Scripture, Oxford, in making this point more broadly:

Ancient Jews and Christians had a strong sense of living in a universe where relationships with humans were not the only kind of relationships. What one saw with one’s physical senses did not encompass everything there was, for angels and demons were such an important part of everyday life ... they were “ministering spirits”... ancient people had a strong sense of living in the midst of powerful forces that far transcended the human or visible.²²⁸

Modern day science continues to provide empirical evidence as to the enormous benefits that music provides for all humans both psychically and physically. Stockhausen wrote that “every single one of us basically needs music as a means of self-healing.”²²⁹ As purported widely, music can be spiritual without being bound to a religious form or tradition. Awareness throughout western history alone about the element of the ephemeral, referring back to human consciousness (ether = akasa), is documented through the examples provided in this chapter and referenced in other chapters of this dissertation. The abundant and important evidence about the magical, transformative

226. Ibid., p. 70.

227. Ibid., p. 81.

228. Barker, pp. 378-79.

229. Stockhausen, p. 58.

powers of music cannot be measured in conventional scientific ways, but that does not mean that these powers do not exist, and are not profoundly meaningful.

In the Age of Reason, ancient links between humans, between nature and the universe were severed leaving things fragmented, disjointed and disconnected. Evidence in these various forms going way back in western history, for example, point to this lost tradition that existed and which permeated the thinking of earlier times. There is tangible evidence throughout modern day society of a yearning to reconnect with the ancient wisdom of the past, the idea of the interconnectedness of mind, body and spirit and the immensely important role of music where this is concerned. Although not expressed in spiritual or mystical terms in the scientific community, the scientific findings as to what music can effect and how it can move people into other states and realms, people who are otherwise comatose for example, who only become enlivened, awakened through music, from hearing a Chopin waltz or a Mozart piano sonata, for example, are more and more becoming common stories that we hear about in our own day. Movies portray this evidence, from “Awakenings” based on the findings by the late Dr. Oliver Sacks, of the profound effect music has on Parkinson’s patients, from his book “Awakenings,” for example. The movie, “The Notebook,” portrays how the heroine suffers from Alzheimers Disease later in life, and although she cannot remember her own children, she can sit down at the piano and play from memory a Chopin prelude she had learned in her youth.

Indeed, the references to music as a means of responding to the negative aspects of physical and mental stress and illness are found in a wide variety of unexpected places.

A recent television ad for Bose stereo speakers and headphones played on a regular basis during the months of December 2015 and January 2016, features Russel Wilson, star quarterback for the Seattle Seahawks of the National Football League. Wilson is sitting on the edge of his pool while he listens to music. The line “music builds you up” is the focus of the spot. Oliver Candy, editor for the world’s best-selling classical music magazine, *BBC Music*, writes of wartime performances (January 2016 edition) in Leningrad in 1942 (Shostakovich, Symphony No. 7) and London (Myra Hess at the National Gallery during the Blitzkrieg) and states, “It’s difficult to overestimate the transformative effect on pain and distress that even the simplest of performance can have.” Victor Hugo (1802–1885), the French writer, articulates this communicative healing power to transform: “Music expresses what cannot be spoken and what is impossible to remain silent about.”²³⁰

Stockhausen believed that one is primarily an individual spirit who must connect with the universal spirit, and that a high level of consciousness is needed to achieve this. He believed that most western professional musicians perform without this awareness or connectedness to the supra-consciousness. “Great power is given to us musicians. Our sounds can kindle in other human beings the fire of longing to rise above themselves.”²³¹ As indicated previously in this dissertation, my own professional training and career path began with only a slight recognition of the power of music to “work” on extra-musical levels. Indeed, this aspect of musical performance was never part of the academic

230. “Victor Hugo.”

231. *Ibid.*, p. 47.

curriculum and remains largely absent even today. “Music is the most subtle way of developing oneself spiritually ...When a certain piece of music penetrates a person, a resonance is set in motion and an inner voice says: ‘I like this resonance. It elevates me ... or this is dragging me down.’”²³²

When I listen to music, an entire individual universe opens up. I have the most incredible images, dreams and visions. I can develop the angel within myself...specific music awakens—not in general but for certain people, responsive to the vibrations—that higher being within ourselves one would constantly like to be...I want to become someone more developed, capable of doing more every day. Music is a means to that end, a highly personal means...The music is a means suddenly enabling you to fly...I don’t know of any other method permitting such a high degree of absolutely personal self-education.²³³

Novalis, the pseudonym of Georg Philipp Fredrich Freiherr von Hardenberg, was a poet, author and philosopher of early German Romanticism, who lived from 1772 until 1801. Novalis believed that mankind was called upon to educate the earth and to recreate the harmony between man and nature that existed in earlier times.²³⁴ In his own day, he stated that the “tender sensitivity of Nature has been lost.”²³⁵ As Stockhausen states:

there seems to be the outcome of a unified world concept in which everything is related to everything else—and where everything is, so to speak, music with musical intervals, obeying just a few universal laws out of which diversity develops. That has long been forgotten about but is gradually returning to consciousness again.²³⁶

232. Ibid., p. 48.

233. Ibid., pp. 51-52.

234. “Novalis.”

235. Godwin, p. 7.

236. Stockhausen, p. 109.

The music therapist, Triona McCaffrey, in 2013 “wonders if the entities of soul and spirit are being lost from the consciousness of current mental health practice.”²³⁷ Performers and composers are the alchemists “who help transmute the Earth by making its substance and souls resonate with echoes of the heavenly music.”²³⁸ The mystical belief is that, for one’s music-making to truly benefit others, to reach others, that one must be blessed by Mnemosyne, Goddess of Memory, mother of the Nine Muses. Her power is allowing those blessed to recapture our other modes of being: “of remembering whence we came, who we really are, and where we are going.”²³⁹ But along with memory we must be blessed by Apollo, god of order, beauty, supreme wielder of the bow and lyre.

Marcel Proust wrote: “certain great artists who do us the service, when they awaken in us the emotion corresponding to the theme which they have found, of shewing us what richness, what variety lies hidden, unknown to us, in that great black impenetrable night, discouraging exploration, of our soul.”²⁴⁰ The musical performer is the conveyor, but the performer’s music continues after played on subtler planes. “One can sense it in the stillness that ought to follow a musical performance. Clairvoyants assure us that they see it ... no musical vibrations are ever entirely lost: even though they are dispersed, they will go on vibrating through the cosmos for eternity.”²⁴¹

237. McCaffrey (2015), p. 31.

238. Godwin, p. 72.

239. *Ibid.*, pp. 72-73.

240. *Ibid.*, p. 74.

241. *Ibid.*, p. 75.

The musical “sirens” of today are both female and male, with those rarer, rather than more common performing musicians’ music truly enchanting audiences and transporting listeners to different states and realms of being. This “magic” of a different plane, a subtler plane, does not fall into today’s methods of empirical measurement. This “magic” is however evidenced in empirically unconventional ways, for example, through the visible radiance, glow, physical softening, physical vibrancy and excitement, joyous comfort and solace exuded by the individuals. Palpable also are the testimonials of audience members stating how transported and enchanted they were by a particular artist’s musical performance. My own contribution to this evidence is that which I have observed, felt, and experienced, along with the countless unsolicited testimonials from audience members, critics, peers and other listeners of my musical performances. These examples and those of other artists provide tangible evidence of the ephemeral essence of the effect that this “magic” does create. The transformative effect of the “inexplicable magic” being akin to the essence of temporary, yet lasting, spiritual rejuvenation, illumination, and Elysium.

Chapter Four. Music in Homo Sapiens

What will a child learn sooner than a song?

Alexander Pope (1688-1744)²⁴²

4.1 Overview of Chapter Four

This chapter discusses the struggle of ideas in the past five centuries over the relationship between music and the development of humankind. Literature arising from the “scientific revolution” that began in the 17th century and continuing to the present, sharply distinguished the spiritual from the physical. The hard distinction between the physical and what had been termed ephemeral was challenged in the mid nineteenth century by a further scientific revolution, the theory of the evolution of species formulated by Charles Darwin (1809–1882). Key to the evolution of homo sapiens was the development of the very large brain, not least because it was instrumental in communication and cooperation, the foundation of society. Darwin suggested music—dance and chanting—was central not only to the growth of social cohesion, but also the capacity for speech. Very significantly, this chapter explores how theories of evolution have confirmed insights by ancient Greek philosophers concerning the central place of music, including dance, in the education of youth, and for personal health and emotional well-being of people of all ages.

242. From “Imitations of Horace,” cited in Mack, *Alexander Pope*, p. 684.

4.2 Interconnectedness of Body and Soul

Concepts of the interconnectedness of body and soul and the healing aspects of music as a preventative and curative method for psychic and physical maladies prevailed in Western culture until the 17th century. Philosopher René Descartes (1596–1650), in *Traité de l’Homme*, portrayed the universe of the individual as being divided into two separate parts, those of mind and body. The body became the domain of medicine while the soul, mind and life forces, became the domain of religion and there was limited interaction. Descartes’ “much touted theory about the interactions between mind and brain,” known as “dualism,” was challenged in 1643 by Princess Elizabeth of Bohemia who wrote to him asking: “I beg of you to tell me how the human soul can determine the movement of the body.”²⁴³ This philosophy of separateness endured until very recent times. So strict were the laws concerning this philosophy that violations were punished by death or imprisonment, and such was the fate of Dr. Wilhelm Reich, who due to his revolutionary work in biophysics, was imprisoned and died in 1957.²⁴⁴

R.J. Stewart in *Music, Power, Harmony* states that the rational sciences of the 18th and 19th centuries may become known as “The Very Dark Ages.”²⁴⁵ However, as recently as 2002, the renowned cognitive psychologist Steven Pinker wrote in *How the Mind*

Works:

As far as biological cause and effect are concerned, music is useless ... Compared with language, vision, social reasoning, and physical know-how, music could vanish from our species and the rest of our lifestyle would be virtually unchanged.

243. Restak, *The Brain—The Last Frontier*, pp. 234-35.

244. Morton (2003); Beaulieu, *Music and Sound in the Healing Arts*, p. 21.

245. Stewart, *Music Power Harmony*, p. 38.

Music appears to be a pure pleasure technology, a cocktail of recreational drugs that we ingest through the ear to stimulate a mass of pleasure circuits at once ... Music communicates nothing but formless emotion ... music is auditory cheesecake, an exquisite confection crafted to tickle the sensitive spots of at least six of our mental faculties.²⁴⁶

Pinker's argument has been challenged by numerous writers who have conducted research in support of Darwin's view that music was central to the development of the human brain and that music is considered to be innate in the human genome. A short list of these scholars includes John Blacking, Denis Dutton, Steven Mithen, Oliver Sacks, Sandra Trehub, Robert Zatorre, Isabelle Peretz, and Daniel Levitin.

Denis Dutton's *The Art Instinct* is part of a large international scholarly movement which examines the origins and growth of art from the perspective of Darwin's theory of evolution. Dutton proposes that homo sapiens possess an art instinct and explains:

While it is true that the arts and the cultural worlds out of which they arise are immensely complex, they are not isolated from evolution ... the evolution of Homo Sapiens in the past million years is not just a history of how we have come to have acute colour vision, a taste for sweets and an upright gait. It is also a story of how we became a species obsessed with creating artistic experiences.²⁴⁷

Dutton argues against views that originated in the 18th and 19th centuries in the works of such scholars as Immanuel Kant and David Hume who claimed that human nature is permanent, God-given and unchangeable, but that human culture is created. Dutton argues that by the 20th century this was "the prevailing ideology in the humanities and

246. Pinker, *How the Mind Works*, pp. 528-29, 534.

247. Dutton, *The Art Instinct*, p. 2.

social sciences.”²⁴⁸ Even committed Darwinian scholars subscribed to this view as evidenced by paleontologist Stephen Jay Gould who regarded the arts as “useless spin-offs of the oversized human brain.”²⁴⁹ Culture was thus considered to be separate from biology, a product of human civilization and therefore a domain of the humanities, and was not considered an integral part of the evolution of homo sapiens. It was no coincidence that the location of music studies in the “humanities” in the nineteenth and twentieth centuries occurred when the “humanities” as a field of knowledge were more closely defined and to that extent isolated, as were most disciplines. The very definition of the “humanities,” foreshortened the “history” of music in the history of human civilization and ignored its evolutionary roots.

Dutton, in his study of Darwin’s insights, concludes that “while culture sanctions and habituates a wide variety of aesthetic tastes, it does not follow that culture can give us a taste for just anything at all.”²⁵⁰ So, it is not surprising that people do not go around humming twelve tone rows by Schoenberg. Neuroscientist Daniel Levitin says that “20th century composers such as Schoenberg threw out the notion of a resolution, a root to the scale, or a musical “home,” thus creating the illusion of no home, a music adrift.”²⁵¹ John Beaulieu, naturopathic physician, writes:

Healing is always a return to the fundamental. We must seek the fundamental everywhere in our lives ... (or) we become dissonant or dis-eased ... and we lose our harmony. Dissonance “is the root of all disease ... the result (of dissonance) is

248. Ibid., p. 204.

249. Ibid., p. 5.

250. Ibid., p. 205.

251. Levitin, *This is Your Brain on Music*, p. 114.

disease or a break in harmony. In tonal music ... the fundamental, coming home, is a “metaphor of spiritual unity.”²⁵²

Concert pianist and conductor Daniel Barenboim writes: “Tonality is a law of nature; the 12 tone system is an example of the contradictions within human nature—one part of the psyche strives for freedom from tonality (and in life), while the other continues to seek the safe hierarchy, the familiar, the desire to return home, the order of tonality.”²⁵³ This idea rings true with many audiences and performers as the programming of atonal and serial works has never resulted in large scale results at the box office or other commercially active transmission venues.

Dutton refers to atonality as “contratonality” and music psychologist David Huron says, “it is important that listeners hold a particular expectational schema—that no matter which type of music from whichever culture, that the intended listeners are familiar with it.” Huron’s description is echoed by Dutton: “The aesthetic effects of music universally depend on listeners being able to anticipate climaxes, resolutions, suspensions, or cadences—and then hear the music fulfill or foil those anticipations.”²⁵⁴

Sufi master Hazrat Inayat Kahn proposes that man is music and that music is life. He writes: “the physical effect of sound has a great influence upon the human body ... there is no greater and more living resonator of sound than the human body.” Kahn notes that the ancient singers would sing one pitch for about half an hour and this would open the intuitive faculties, create enthusiasm, give energy, sooth and heal. Techniques of

252. Beaulieu, pp. 44, 126.

253. Barenboim, *The Power of Music*, p. 34.

254. Dutton, p. 217.

“droning” are still found today in many cultures (bagpipes aside) and tonality itself has been described as the “unheard drone.” Sound “becomes visible in the form of radiance.” Kahn writes that “health is a condition of perfect rhythm and tone. Music is rhythm and tone. When the health is out of order, it means the music is out of order.”²⁵⁵

Kahn believes that the quickest way to spiritual perfection is through music. Music makes the spirit become alive and conscious, and creates harmony. Man’s “health or illness, his joy or discomfort, all show the music or lack of music in his life. Music helps us train ourselves in harmony, and it is this that is the magic or the secret behind music.” Such is the depth of music’s effects “on the health of the physical body, on thought, on imagination and on the heart,” that it “produces new life, a life that gives exaltation to the whole being, raising it to that perfection in which lies the fulfillment of human life.” The expression of this new life is “through one’s finger tips on the violin, through one’s voice when singing.” Kahn contends that human souls are yearning for this state of healthy living, and it is music that heals the soul.²⁵⁶ Stravinsky expressed the same idea with characteristic insight when he said of his own ethnic-inspired musical creations: “Music is given to us with the sole purpose of establishing an order in things, including, and particularly, the coordination between man and time.”²⁵⁷ Joscelyn Godwin was more precise: “Music brings about in mankind the unity of purpose and of feeling,

255. Kahn, *The Music of Life*, pp. 267-69, 274, 278.

256. *Ibid.*, pp. 130-31, 134, 139.

257. Stravinsky, *Chronicle of My Life*, p. 83.

reflecting the perfect harmony of the heavens, without which civilization cannot stand; ceremonies assign everyone's distinct place in the earthly hierarchy."²⁵⁸

Although modern research has confirmed that there was an intuitive knowing of the ancient cultures as concerns the empowering, transformative effects of music for our species, our modern day reliance on technology has created a fragmentation and disconnect from our inner faculties. John Beaulieu speaks about how music affects life energy, but that today many are out of touch with our feelings due to technology. Don Campbell claims that the invasion of high-tech sensory stimulation has caused children "to lose their natural, intuitive connections ... the bridges between the conscious and subconscious have been weakened."²⁵⁹ Peter Hamel echoes this maintaining that technology, beginning with the advent of television saw "the subtle processes of our own organism (have been) stunted, if not killed off entirely."²⁶⁰ The fact that modern western society is saturated with programming, simplified content, and constant advertising designed for electronic devices is often seen as a relevant factor in the reduction of audience size and attention span.

Unlike the philosophy of separateness, energy in the healing arts is based on the holistic philosophy of the interaction of body, emotion, mind and spirit. Health exists when these elements function in harmony with themselves and with the cosmos.

258. Godwin, *Harmonies of Heaven and Earth*, p. 32.

259. Campbell, *The Roar of Silence*, p. 35.

260. Hamel, *Through Music to the Self*, p. 174.

“Disorders or disease become evident when parts of the whole are experienced as separate and in confliction.”²⁶¹

Charles Darwin in *Origin of Species* wrote, “The capacity of high musical development, which the savage races of man possess, may be due either to the practice by our semi-human progenitors of some rude form of music, or simply to their having acquired the proper vocal organs for a different purpose.”²⁶² Darwin references Dr. Seemann who observed, “we can concentrate greater intensity of feeling in a singly musical note than in pages of writing.” As philosopher Herbert Spencer wrote: “Music arouses dormant sentiments of which we had not conceived the possibility, and do not know the meaning.” Nor was this merely a Western perspective. According to Chinese annals: “Music hath the power of making heaven descend upon earth.” It likewise stirs up in us the sense of triumph and the glorious ardour for war. These powerful and mingled feelings may well give rise to the sense of sublimity.”²⁶³ Dutton’s conclusions embody those of many writers: “Music evolved to become a supremely high art form, and is considered to be universal across cultures and history. There is a deep and pervasive hold of music on the human mind in almost every culture.”²⁶⁴ My own extensive musical experiences, as outlined earlier in this dissertation, tend to confirm this last statement as a basic reality. Music lives in the lives of people and like food and air it is necessary to sustain healthy living.

261. Beaulieu, p. 22.

262. Darwin, *The Descent of Man*, pp. 207-208.

263. *Ibid.*, pp. 636-38.

264. For example, Dutton, p. 212.

Darwin's views had much in common with those of the German "Enlightenment" writer Johann Georg Sulzer, author of an encyclopedia of the fine arts, *Allgemeine Theorie der schönen Künste* (1771–74). He wrote: "music is a 'natural sign,' [which means that] sounds and emotions are innate in human nature and are instantly recognized by everyone, regardless of education or culture. Music, unlike verbal language does not depend on humanly instigated conventions: nature has established an absolutely direct connection between ear and heart; each passion gives rise to particular tones, and these very tones awaken in the heart of a person who hears them the passionate sentiment from which they arose." Sulzer, also suggested that music pre-dated language, exactly the reverse of what some modern scholars such as Steven Pinker have purported.²⁶⁵

Darwin, and many modern scholars including Dutton and Levitin, strongly support the idea that music was an antecedent to language: "When vivid emotions are felt and expressed by the orator, or even in common speech, musical cadences and rhythm are instinctively used." "We must suppose that the rhythm and cadences or oratory are derived from previously developed musical powers ... musical sounds afforded one of the basis for the development of language."²⁶⁶

Philosopher Daniel Dennett supports the thesis that our musical instincts are a product of evolution, "Some people like the idea that it is our human minds and human culture that distinguish us sharply from all the 'thoughtless brutes' (as Decartes called them), but they don't like the idea of trying to give an evolutionary explanation of the

265. Riley (2002), pp. 18-19.

266. Darwin, *The Descent of Man*, p. 638; Levitin, *The World in Six Songs*, p. 3.

creation of this most important distinguishing mark ... like life itself ... culture must have a Darwinian origin ... and at every step along the way the results have to be evolutionary enforceable.”²⁶⁷ Daniel Levitin writes: “Music is important in the daily lives of most people in the world, and has been throughout human history. Anyone who wants to understand human nature, the interaction between brain and culture, between evolution, mind and society, has to take a close look at the role that music has held in the lives of humans, at the way that music and people coevolved, each shaping the other.”²⁶⁸

In *The Origin of Species* Darwin speculates that our instincts cannot have been acquired by habit: “Instincts are as important as corporeal structures for the welfare of each species ... I believe that the most complex and wonderful instincts have originated.”²⁶⁹ Dutton says that art instinct is a deep human instinct: “music may seem largely cultural, but the instinct that conditions it is not ... there is a deep and pervasive hold of music on the human mind in almost every culture ... pitched sounds, when combined and rhythmically presented are material for one of the most important art forms of all ... music is an evolved phenomenon that is unique to Homo Sapiens.”²⁷⁰ Ethnomusicologist Alan Merriam notes, “music is a uniquely human phenomenon ... is universal in human culture, and the fact that it is found everywhere is also of great importance in reaching an understanding of what it is and does for men.”²⁷¹ Blacking’s intuition supports Dutton’s cross-cultural view as well as his view that the music is innate

267. Dennett, *Darwin’s Dangerous Idea*, p. 341.

268. Levitin, *The World in Six Songs*, p. 2.

269. Darwin, *The Origin of Species*, p. 319.

270. Dutton, pp. 6, 206.

271. Merriam, *The Anthropology of Music*, pp. 27-28.

in our species: “Music can transcend time and culture ... some Venda songs that must have been composed hundreds of years ago still excite the Venda, and they also excite me ... I am convinced that the explanation for this is to be found in the fact that at the level of deep structures in music there are elements that are common to the human psyche, although they may not appear in the surface structures.”²⁷²

According to the American folk singer Peter (Pete) Seeger (1919–2014) “good music can leap over language boundaries, over barriers of religion and politics and hit someone’s heartstrings somehow. That opens up their hearts to ideas that they might not have entertained if brought in through regular speech.”²⁷³ R. J. Stewart is more explicit: “The empowering effects of music are a major part of the holistic arts of realigning inner consciousness, the imagination, the emotions, the mental processes, the vital energies and the physical body. These methods were once widely taught.”²⁷⁴ The ancient Chinese Book of Rites spells out these effects in detail, demonstrating the truth of Stewart’s historical reference:

When one has mastered music completely, and regulates the heart and mind accordingly, the natural, correct, gentle and honest heart is easily developed, and with this development of the heart comes joy. This joy goes on to a feeling of repose. This repose is long-continued. Persons in this constant repose become a sort of Heaven. Heaven-like, their action is spirit-like. Heaven-like, they are believed without the use of words. Spirit-like, they are regarded with awe, without any display of rage. So it is, when one by mastering of music regulates the mind and heart.²⁷⁵

272. Blacking, *How Musical is Man?*, pp. 108-9.

273. Levitin, *The World in Six Songs*, p. 72.

274. Stewart, p. 18.

275. Godwin, p. 85.

In *Musicophilia*, Oliver Sacks says that people can remember things better if put to music. He writes: “setting words to music has played a huge role in relation to the oral traditions of poetry, story-telling, liturgy and prayer. Entire books can be held in memory—*The Illiad* and *The Odyssey* ... because like ballads, they have rhythm and rhyme ... carrying the co-joined meaning of measure, motion and stream.”²⁷⁶

Dutton points out that no other art can tolerate repetition in the way that music does since repetition is intrinsic in music. Sacks mentions, “we are attracted to repetition and our greatest composers are masters of repetition—we want the stimulus and the reward again and again, and in music we get it.”²⁷⁷ One can listen to works hundreds upon hundreds of times and never tire of them. This is unique to music. Pieces of music get stuck in our heads, referred to as “brain worms” by neuroscientists. “A piece of music will draw one in, teach one about its structure and secrets, whether one is listening consciously or not. This is so even if one has never heard a piece of music before. Listening to music is not a passive process but intensely active, involving a stream of inferences, hypotheses, expectations, and anticipations ... When we ‘remember’ a melody, it plays in our mind; it becomes newly alive.”²⁷⁸ The human organism can listen to a piece over and over again and not tire of it, and even yearn to keep hearing it, continuing to receive pleasure and satisfaction with each repetition.

Philosopher Steven Mithen in his book *The Singing Neanderthal* states:

276. Sacks, *Musicophilia*, p. 259; Samson, Dellacherie and Platel (2009), pp. 245, 253.

277. Sacks, p. 52.

278. *Ibid.*, p. 226; for a discussion that includes literary references see “Earworm.”

we don't have emotions for free or for fun: they are critical to human thought and behaviour, and have a long evolutionary history ... Emotions are deeply entwined with the functioning of human cognition and physiology; they are a control system for body and mind. It is most unlikely, therefore, that our deepest emotions would be so easily and profoundly stirred by music if it were no more than a recent invention ... We can only explain the human propensity to make and listen to music by recognizing that it has been encoded into the human genome during the evolutionary history of our species.²⁷⁹

All human children have musical predispositions,²⁸⁰ which points to the well-documented belief that “musical skills are deeply embedded in the biology of our species and are governed by a highly specific neural architecture.”²⁸¹ “The ability to perceive music is present from very early in development ... the human baby comes into the world with a brain already well prepared to figure out its musical world.”²⁸² “Some aspects of infants’ early perception are quite sophisticated.”²⁸³

For example, six month old infants can categorize consonant and dissonant intervals²⁸⁴ and as young as two months old, infants prefer to listen to consonant versus dissonant melodies.²⁸⁵ This preference suggests why babies “are more attentive while listening to Mozart minuets” than to dissonant music.²⁸⁶ The concept of what constitutes musical “dissonance” is of course open to much debate and there have been numerous theorists throughout western music history who have tackled the challenge of defining the

279. Mithen, *The Singing Neanderthals*, pp. 1, 25.

280. Trehub and Hannon (2006); Zentner and Eerola (2010); Kirschner and Tomasello (2010), p. 355.

281. Faienza and Cossu (2003), p. 392.

282. Zatorre (2005), p. 314.

283. For example, Trehub and Hannon (2006); Gerry, Faux and Trainor (2010), p. 545; Trainor, Wu and Tsang (2004), pp. 289-90.

284. Trainor (1997).

285. Trainor, Tsang & Cheung (2002); Trainor (2005), p. 271.

286. Trainor (1997).

nature of dissonance. Considering the content of my research, it seems appropriate to confirm that a broad definition of dissonance is more easily conceived if consonance is seen as proceeding from nature and the overtone series of pitches which are constituent with the natural laws of vibrating bodies in physics. This concept links very strongly with the idea of tonality or at least the concept of a tonal center or tonic pitch which offers a resting place or sonic home for the listener.

The Anang of Nigeria say that “all individuals are musically proficient.” Infants there are introduced to music and dancing by their mothers when they are about a week old, and their fathers make small drums for them. By the time the babies are two years old they join groups where they learn singing, dancing and instruments, and by the age of five the children know hundreds of songs, play several percussion instruments and can perform numerous dances. “Anthropologists who studied this group claim never to have encountered in it a ‘non-musical’ member.”²⁸⁷

Caregivers around the world sing to infants to capture their attention, to calm and soothe and to share emotions as well as to bond more with their baby. Infants are more attentive to and more engaged when listening to a mother’s singing rather than to a mother speaking. “The melody is the message.”²⁸⁸ Emotional communication through singing is so powerful for infants, even for hearing newborns of deaf parents—this points to biological preparedness.²⁸⁹

287. Gardner, *Frames of Mind*, p. 110.

288. Fernald (1989); Trainor (1996), p. 83; Kirschner and Tomasello, (2010), p. 355.

289. Trehub and Hannon (2006) and also Faienza and Cossu (2003), p.393; Fitch (2005), pp. 29, 31.

Levitin argues “that music but not speech activates areas of the human brain that are very ancient.”²⁹⁰ David Huron reveals that the repetition of melody and rhythm built into music gives music a predictability that speech lacks, and this predictability can be soothing. Ian Cross articulates an eternal truth of parenting—singing calms both the mother and child. Steven Mithen, in *The Singing Neanderthal*, references developmental psychologist Colin Trevarthen who says that “humans are born with a Musical wisdom and appetite ... from the moment of birth babies are attracted to music—it is their natural instinctive language.”²⁹¹ This research is also supported by science commentator Robert Jourdain in *Music, The Brain and Ecstasy*. Neurologist Dr. Oliver Sacks (1933–2015), supports Dutton’s view versus that of Pinker, Gould and others who rejected the evolutionary origins of music:

for virtually all human beings, music has great power, whether we think of ourselves as particularly “musical.” This propensity to music—this musicophilia—shows itself in infancy, is manifest and central in every culture, and probably goes back to the very beginnings of our species ... it lies so deep in human nature that one is tempted to think of it as innate.²⁹²

Mithen says, “music was essential to the survival of our Stone Age ancestors ... we have inherited from them a compulsion to engage with music, indeed we have evolved as a musical species ... the capacity for music is deeply embedded in the human genome ... it is part of our biology rather than merely our culture and could only have gotten there via an evolutionary process.”²⁹³ Mithen writes: “We are a musical species

290. Levitin, *The World in Six Songs*, p. 126.

291. Mithen (2009), p. 4; Trevarthen (1999-2000), pp. 155-215.

292. Sacks, p. x.

293. Mithen (2009), p. 4.

because of a long evolutionary past when communication by variations in pitch and rhythm, by the use of harmony, and by group singing and dancing was essential to survival and reproduction ... our evolutionary history has left us with an instinct, a thirst, a need, nothing less than a burning desire for music.”²⁹⁴ Geoffrey Miller, an evolutionary biologist, states, “universality, costliness and genetic control all suggest that music has a clear function in survival or reproduction.”²⁹⁵ Robert Jourdain, in *Music, The Brain and Ecstasy*, elaborates that point:

... the human brain is able to manipulate patterns of sound far more complex than the brain of any other animal can manage ... when music dissolves into ecstasy, it transports us to an abstract place far from the physical world that normally occupies our minds ... it took some 500 million years, which is well over a hundred million generations of animals, to evolve from the first hint of sound, first heard by fish, to an ear that can fathom Don Giovanni ... only humans have brains that can be trained to penetrate layer upon layer of sonic relations ... a great melody is magic ... music is everywhere and embedded in everything.²⁹⁶

294. *Ibid.*, p. 11.

295. “Human Evolution: Why Music” (2008).

296. Jourdain, pp. 4-5, 16, 28, 238.

Chapter Five. Emotion, Movement, and Therapy

5.1 Overview of Chapter Five

This chapter explores research from recent decades that deals with emotion, movement, and therapy. It explores some of the ways and methods that this research has affected and influenced music therapy and also the wider uses of music by medical practitioners and other caregivers. In this work scientists, philosophers, and artists have rediscovered ancient insights into the positive effects of music for emotional and physical well-being from the womb through old age, and confirmed insights by Darwin in the mid-19th century.

5.2 Emotion

The various insights from Darwin and his followers about the centrality of music to human development stimulated a great deal of further research on the intimately interconnected roles of music in human emotions and physical well-being. This work offers an explanation of what the ancients had deduced about the importance of music as a tonic for personal health and development and, through positive social interactions created by musical scenarios, to a healthier community life. This healthier community nourishes the individual and in return draws further strength from that personal nourishment. The rediscovery of ancient insights has resulted in a renaissance of attitudes and approaches and resulted in new musically related endeavours by the health

professions to treat illness and, more generally, to promote physical and mental well-being.

British composer Cyril Scott (1879–1970) was sensitive to the “hidden” power.

Music awakens certain emotions ... music, therefore, is constantly suggesting states of emotion and reproducing them in the listener, and as emotional habits are as readily formed as other habits, they eventually become part of the listener’s character. Our researches have proved to us that not only the emotional content but the essence of the actual musical form tends to reproduce itself in human conduct; hence we may with justification formulate the following axiom—as in music, so in life.²⁹⁷

Oliver Sacks quotes German philosopher Arthur Schopenhauer: “The inexpressible intimacy of all music, which allows it to pass before us like a paradise that is so utterly familiar and yet eternally foreign, so entirely comprehensible and yet so inexplicable, rests on the fact that it renders all the impulses of our innermost essence but without any reality and removed from their pain.”²⁹⁸ “Consistently, across all cultures we know of,” Ian Cross concludes, “music induces, evokes, incites, and conveys emotion ... If music and mood/emotion are that closely tied, there must be an evolutionary explanation.”²⁹⁹ and “... musicality can be interpreted as having played a significant role in the evolutionary processes that resulted in the emergence of modern humans, in facilitating our extraordinary social and cognitive flexibility, and as continuing to play that role in consolidating those flexibilities.”³⁰⁰

297. Scott, *Music, Its Secret Influence Throughout the Ages*, pp. 41-43.

298. Schopenhauer, *The World as Will and Representation*, vol. 1: 292.

299. Levitin, *The World in Six Songs*, pp. 145-46.

300. Cross (2008), pp. 147, 161.

Dr. Laurel Trainor states, “music can both communicate information about emotion and evoke a direct emotional response ... music is associated with physiological ... as well as physical responses”³⁰¹ Jourdain says, “music seems to reenact experience within the body ... is a language of the emotions ... music’s movement is more perfect than a body’s...well-crafted music creates the very world it travels through, meeting every anticipation with a graceful resolution, and raising new anticipation at every turn.”³⁰² He also believes that it is due to emotions that music evolved to strengthen community bonds and resolve conflicts: “it is by exercising or assuaging emotions that we establish rapport with other human beings ... music somehow embodies emotion ... imparts dignity to experience that often is far from dignified ... it can transport us to levels of ecstasy.”³⁰³ Music-making with others has been shown to lead to greater social cooperation. Kirschner and Tomasello found that “active music-making amongst four year old children led to spontaneous helpful and cooperative behaviour.”³⁰⁴ Using music to influence emotional states is hardly original. Historical data reveals a relationship between music and mood-regulation that was common centuries ago. The scientific revolution of the 17th and 18th centuries emphasized “empirical” evidence and statistics and separation of science and the arts resulted. Music as a method of affecting mental states slipped away from the mainstream and a “great divide” between music and mental

301. Trainor (1996), p. 84.

302. Jourdain, *Music, the Brain, and Ecstasy*, pp. 293, 302-303.

303. *Ibid.*, pp. 308, 322.

304. Kirschner and Tomasello (2010), esp. p. 361; Gerry, Unrau and Trainor (2012), p. 400.

state occurred. The lengthy relationship between music and mood regulation confirms the power of music to act on human emotions.

Music is an essential component in augmenting the communicative power of film, cinema, television, and most recently multimedia and video games. Music is mood-inducing, whether specifically for relaxation, for elegant dinners, or parties, for romance, for fun times, or music to incite fear and suspense. Whenever a specific “mood” is required music creates the ambience and sets that mood.

The strong ties between music and emotion are acknowledged universally. Music has been used throughout most of human history as a form of healing and therapy (Hall, 1982; Thayer Gaston, 1968) and in modern Western society, many individuals use music as a form of relaxation to eliminate insomnia, headaches and reduce muscle tension.³⁰⁵

As noted earlier, many studies indicate that care-givers who sing directly to infants generate results which positively alter the mood and state of the infant. This happens both physiologically and psychologically as the melodic lullabies calm the infant and induce sleep and contentment.³⁰⁶ Neuroscientific studies document that many areas of the brain are involved with the emotional processing of music. It has been found that dissonant, unpleasant music elicits many unhealthy physical and psychological reactions: “the violation of musical expectancies has been regarded as an important aspect of generating emotions when listening to music, and the perception of irregular chord functions has been shown to lead to an increase of perceived tension, and the perception

305. Rock, Trainor, and Addison (1999), p. 528.

306. Trainor (1996); Rock, Trainor, and Addison (1999), pp. 527-28; Peretz (2006), p. 17; Samson, Dellacherie, and Platel (2009); Trainor, Wu, and Tsang (2004).

of tension has been linked to the physiological responses while listening to music.”³⁰⁷

This same study specifies that “pleasant musical excerpts were not computerized sounds, but natural musical stimuli”³⁰⁸ In contrast, classical and other more consonant music enables the psyche and physical being to relax and focus. Robert Zatorre explains that “chills down the spine” is an effect which people often experience when listening to beautiful music. Music that moves many individuals deeply has been shown by neuroimaging to be involved in areas of the brain that are concerned with reward and motivation.³⁰⁹

5.3 Movement

Most humans tend to be musical although there appear to be exceptions to this fact. People enjoy music, are emotionally moved by it, and generally agree that it alters mood and soothes the soul. Humans sing and dance, love, march, fight, and work to music. One hears music during all varieties of official ceremonies and numerous social occasions such as parties, weddings, funerals, in addition to various religious occasions and rituals. Music brings people together and strengthens personal relationships and brings about social cooperation and bonding.

The power of music (and dance) is generated by the extension of individuality in community. The utilitarian value of dance and music would be to enhance cooperation and educate the emotions and senses. It is a form of communion

307. Koelsch (2009), pp. 414-15.

308. Ibid., p. 413.

309. Zatorre and Salimpoor (2013), p. 2; Peretz and Zatorre (2005), p. 98 and others.

whose adaptive function is to generate greater sensory awareness and social cooperation.³¹⁰

People move in time or in “synch” with each other as in marching, rowing, dancing, singing and chanting, exercising, jogging, skating to create or enjoy a synchronous activity that generates shared positive emotion and leads to group cooperation and group cohesion.³¹¹ “Synchronized behaviours are those that are matched in time, such as the coordinated movements of an athletic team or an orchestra, or with the same actions such as pairs walking in stride. Synchrony requires anticipation of the behaviours of others to coordinate movement timing.”³¹² “Synchronous behaviour is often associated with close, communal relationships, which in turn promotes more closeness. So synchronous behaviours will promote more affiliation than matched behaviours alone.”³¹³

The well-known association between music and movement both behaviourally and neurally (across cultures and throughout history) suggests an ancient evolutionary connection between music and dance, or more generally, between sound and movement ... Music cannot exist without movement ... When listening to music, many people report that it is difficult to avoid moving their bodies, whether it is a simple head nod to the beat, a body sway or a foot tap, and of course dancing. The connection between music and movement shows up also in studies of visual perception of musical performances. Watching a musical performance, even with the sound turned off, conveys a great deal of structural and emotional information, further supporting evolutionary connections between music and movement.³¹⁴

310. Peretz (2006), p. 24; Gerry, Unrau and Trainor (2012), p. 400 and others.

311. Wiltermuth and Heath (2009), p. 1.

312. Hove and Risen (2009) pp. 950-51.

313. Ibid.

314. Levitin and Tirovolas (2009), pp. 217-18.

... the pulse in music is essential to allow synchronization of the performer's body movements during dancing and instrument play. The resulting interpersonal synchrony alone produces positive emotions that weaken the boundaries between the self and the group, leading to feelings of collective delight that enable groups to remain cohesive ...

The intrinsic desire to share emotions, experiences and activities ... appears very early in human ontogeny and enables children to participate in cooperative activities involving joint intentions and joint attention from early infancy onwards.³¹⁵

A study conducted by Laura Cirelli, Kate Einarson, and Laurel Trainor, "The Social Effects of Bouncing to Musical Beats with 14-month Old Children," reveals that infants who were bounced to the music in synchrony with the beat of the music were more helpful and cooperative than those who were not bounced in synchrony to the musical beat. *Li Chi*, the ancient Chinese Book of Rites, reveals that music should be used in conjunction with ceremonies to bring civilization into proper state of harmony and order."³¹⁶ British music scholar John Blacking wrote: "The motion of music alone seems to awaken in our bodies all kinds of responses."³¹⁷

5.4 Therapy

E. T. A. Hoffmann, the German fantasy writer and composer, invoked the image of the human soul as a butterfly. "Here on earth we are like mere caterpillars until we let ourselves be entranced and enwrapped by the music which has its origin in the starry ... then ... whether in a trance or at death, when our cocoons will fall away and we will awaken as winged soul-beings who can fly back to our true home of light." Godwin

315. Kirschner and Tomasello (2010), p. 362.

316. Godwin, *Harmonies of Heaven and Earth*, p. 31.

317. Blacking, *How Musical is Man?*, p. 52.

claims that there is substantial evidence that “it is music itself that can set us on this journey.”³¹⁸

Stephen Mithen refutes Pinker’s position that “music is not more than auditory cheesecake, simply an evolutionary spinoff from language, a lucky break for mankind providing song and dance as a relief from the tedium of survival and reproduction,” by pointing out the success achieved by the practice of music therapy, and how the use of music by music therapists among people who are ill or challenged either physiologically or mentally, has proven to be tremendously healing.³¹⁹

5.5 The Profession of Music Therapy

The profession of Music Therapy is widespread today in psychiatric centres and institutions, hospitals and care facilities of all types as well as in schools for children with special challenges. Music Therapy is recognized as an established academic and professional discipline and community musicians are often welcomed in elderly care and health-care environments as a means of applied music therapy.³²⁰ In May 2011 the *Toronto Star* featured an article on music therapist Sandi Curtis who arranged for musicians from the Windsor Symphony Orchestra to perform in local hospitals for critically ill and dying patients. There is a “rediscovery of the deep human need for the aesthetic and a rebirth ... of music’s potential to heal.”³²¹

318. Godwin, p. 52.

319. Mithen, *The Singing Neanderthals*, p. 96.

320. Boyce-Tillman, *Constructing Musical Healing*, p. 11.

321. *Ibid.*

Across many societies, music is associated with magical powers, medicine, and healing. The field of music therapy is flourishing in contemporary Western society, offering help to the mentally retarded, elderly, physically disabled, autistic, learning disabled, and those with various psychiatric and medical conditions such as sensory disorders, stroke, and traumatic brain injury. In pediatrics, music is being used to stimulate and pacify premature infants, reduce anxiety and manage pain during labour and decrease stress in hospitalized infants and toddlers.³²²

Many who benefit from music therapy are inpatients or outpatients with mental and emotional disorders covering all psychosocial, psychiatric and physiological illnesses and conditions. Music therapy also aids those with wide-ranging physical illnesses, syndromes and conditions.

Consistent with ancient historical traditions, music as therapy for the psychically or physically ill, acknowledges the complete person, the integrated whole of the mind, body and spirit.³²³

The profession of music therapy focuses on healing people when they are already afflicted with a medically defined condition or state of being whether from birth or in later life. Music therapy is often presented as a process to manage or mollify the obvious displays of character defined and commonly observed when an individual is physically and/or mentally unbalanced. Music therapy practitioners have developed many different methods and approaches to helping people who are ill, either physically or psychically or both.³²⁴ The advancements by the scientific community through brain imaging and various technological and other techniques have provided conclusive evidence of music's

322. Trainor (1996), p. 84.

323. Bonny, *Music Consciousness*, p. 119; Koelsch (2009), p. 374; Campbell, *The Mozart Effect*.

324. See sections 5.5 through 5.12 of the present chapter.

vital role in healing both psychically and physically.³²⁵ Music therapy “involves the creating of special conditions where musicing can happen for people who cannot create the conditions on their own, whether this is due to physical, cognitive, social, or emotional reasons.” The Nordoff Robbins Method of music therapy believes that “the innate need for musical relating to fulfill one’s human needs and drives is what warrants the provision of music to clients in music therapy.”³²⁶ Music therapy has also been defined as “a systematic process of intervention wherein the therapist helps the client to achieve health using musical experiences and the relationships that develop through them as dynamic forces of change.”³²⁷ Music therapy is distinguished from other practices involving music in its use of therapeutic processing of assessment, treatment and evaluation; and the range of musical experiences offered to the patient; and the relationship with the patient that evolves through the music.³²⁸

5.6 Guided Imagery and Music (GIM)

Therapist Helen Bonny pioneered and developed this technique, which employs music to generate images to emerge in the mind of a patient. The therapist helps the patient explore these images as they appear during a listening process in a relaxing environment. Bonny remarks that it is “classical music which we have found most deeply accesses imagery of a healing nature ... classical music presents a mood or feeling then

325. Sacks, p. 257; “Inside Oliver Sack’s Brain”; Dinh, Jichici, and Hamielec (2013), pp. 119, 125-26; Thaut, Gardiner, Olmberg, Horwitz, Kent, Andrews, Donelan and McIntosh (2012), pp. 406, 407, 414.

326. Aigen (2014), pp. 22-24.

327. Biley (1999), p. 141.

328. Dileo (2013), p. 114.

significantly alters it through the use of complex development sections before the music finally comes to a resolution. This kind of harmonic and melodic complexity (or tension) is helpful for a person who opens themselves to the deeper contents of their internal world ... almost any kind of music that a person is attracted to can open doors for exploration (but) popular music because of its simpler harmonies, melodies and structure, is not usually enough to take you as deeply inside, but many clients need to work with simpler forms of music before they are ready for the more complex forms.”³²⁹ “Classical selections are able to provide depth of experience, variety of colour and form, harmonic and melodic complexity which are qualities needed for self-exploration.”³³⁰

Bonny spent many years exploring how “great music energized the opening of the psyche. At an orchestra concert I had observed the hypnotic effect of concentrated listening of an audience held in the psychic spell of rhythm, tone and auditory magic.”³³¹ Bonny wanted the musical experiences, with all the benefits that great music gives to concert-goers, to be translated into therapy settings but without using drugs.³³² Bonny asserted that “the music listening program would result in reduction of anxiety, depression, preoccupation with pain, psychological isolation, and an improvement in medical management.”³³³

The belief is that music can be used to revive memories, and that these memories can be “recombined to produce completely new experiences.” The realization of pain is

329. Bonny, *Music and Your Mind*, p. 167 and *Music and Consciousness*, pp. 123, 125, 150, 181.

330. Bonny, *Music and Consciousness*, p. 150.

331. *Ibid.*, p. 10.

332. *Ibid.*

333. *Ibid.*, p. 16.

influenced by its emotional content, the interest directed toward it at the time, and the intensity and duration of the experience. Appropriate music that has strong associative properties can distract clients away from their pain perceptions. The findings support these assertions, with classical music calming and soothing, decreasing heart rate, offering greater tolerance for pain and suffering, lessening anxiety and depression and more.³³⁴

5.7 Developmental Integrative Model in Music Therapy (DIMIT)

In this form of therapy “music serves as the direct and primary language of therapy, medicine as a basis for understanding the human body, and psychology as a secondary language for the treatment of emotional aspects. Music is perceived as being a product of the human organism and music can therefore activate the vital functions of the human organism.”³³⁵ This method has proven to help severe chronic patients in major psychiatric hospitals—patients who are psychotic, retarded, autistic, mute and so on. The musical emphasis here is on the cultural roots of each individual patient as regards the appropriate choice of music.³³⁶

5.8 The ISO Principle

The ISO principle is a method of mood management universally understood as a theory of like acting on like, implying that a gradual mood change in music will in turn be followed by gradual changes in the mood of the client. Dr. Ira M. Altshuler developed

334. Bonny, *Music and Consciousness*, p. 16; Bush, *Healing Imagery and Music*, p. 78; Maslar (1986), p. 218.

335. Sekeles (2006), p. 80.

336. *Ibid.*, pp. 73, 80.

the concept of the iso principle with patients requiring psychiatric care at Eloise Hospital in Michigan.³³⁷ ISO is a prefix from the Greek word isos, which means “equal.” In order to be equal, music must be attuned or connect with the individual’s current mood state. Music is used to manage mood instead of drugs (non-pharmacological), or in conjunction with them.³³⁸

5.9 Neurologic Music Therapy (NMT)

Neurologic Music Therapy is defined as the therapeutic application of music to cognitive, sensory, and motor dysfunctions due to neurological disease of the human nervous system. Performing, listening, and moving to music engages regions throughout the brain providing a means for optimal learning, rehabilitative experiences and facilitates cortical plasticity. It is very successful with Parkinson’s patients, traumatic brain injury, spinal cord injury, stroke, MS, and Huntington disease, Muscular Dystrophy, Dementia, Alzheimers, cerebral palsy, autism, visual impairment, and developmental delays.³³⁹

5.10 Music Medicine

This field is emerging as a “significant non-pharmacological alternative in a number of psychiatric states.”³⁴⁰ It is the use of music in the treatment and management of somatic and mental diseases and most relevantly has been beneficial for anxiety reduction in mechanically ventilated patients.

337. Maslar, p. 217.

338. Heiderscheit and Madson (2015), p. 46.

339. LaGasse and Thaut (2013), pp. 228, 230; Thaut, Gardiner, Holmberg, Horwitz, Kent, Andrews, Donelan, and McIntosh (2009), p. 406; Clements-Cortes (2012), pp. 37-39.

340. Deshmukf, Sarvaiya, Nayak and Nayak (2009), p. 70.

Several studies show that the classical style of music, such as Mozart, generates physiologic responses that alter cognition. Mozart piano sonatas have been correlated with positive mood and arousal in human studies; high success staying off sedation infusions; and lowered heart rates. Performed by internationally renowned classical pianist, Andras Schiff, the slow movements from eight different Mozart Piano Sonatas provide a practical nonpharmacological intervention.³⁴¹

The various methods employed in music therapy continue to significantly benefit patients ranging from those with geriatric ailments and conditions, depression, terminal illness, psychoses, autism, those dependent upon intensive care medicine, speech disorders, severe pain due to cancer and other ailments, Parkinson's, traumatic brain injury, spinal cord injury, stroke, MS, Huntington disease, Muscular Dystrophy, Dementia, Alzheimers, cerebral palsy, visual impairment, and developmental delays and more.

The most beneficial effect is seen in those patients who had classical music played for them, such as music by Bach, Mozart, or Italian composers. Lullabies are ideal for the unborn and born child and mother. For geriatric patients, music from their youth and from "better days" can lead to improved mood, motivation and increased vitality and will also encourage social contacts. Music will continue for a patient while all other functions are lost, including victims of Alzheimers. By contrast, "heavy metal" and

341. To, Dinh, Jichici, and Hamielec (2013), pp. 119, 125-26.

“techno” music, for example, have been shown to stimulate rage, disappointment, and aggressive behaviour while causing both heart rate and blood pressure to increase.³⁴²

There is a growing body of research supporting the positive benefits promoting overall health of live classical concert performances. Live musical experiences, such as relaxing classical music, affect specific regions of the brain, promoting favourable changes in hormone levels, immune function, and mortality; reduces sympathetic nervous system activity and decreases anxiety, blood pressure, respiratory rate and can improve sleep quality. Classical music listening experiences also promote the ability to withstand disease and promote positive feelings overall and good for the community.³⁴³

Bringing together world-renowned musicians with leading scientists, physicians, health care professionals and therapists who are engaged in state-of-the-art research assessing the role and impact of music on the developing brain cognition, learning, memory, language, and emotion, as well as the application of music to health, well-being, and treatment of disease are critical to the ongoing growth of music and medicine.³⁴⁴

5.11 Psychotherapy

Psychotherapy is also known as talk therapy, counseling, psychosocial therapy, or simply, therapy. Psychotherapy is the use of psychological methods, particularly when based on regular personal interaction, to help a person change and overcome problems in desired ways. Psychotherapy aims to increase each individual’s well-being and mental

342. Trappe (2012), pp. 100-3.

343. Larsen, Larsen, Larsen, Im, Moursi, and Nonken (2012), pp. 178, 180.

344. DeVelder (2012), pp. 188-90.

health, to resolve or mitigate troublesome behaviours, beliefs, compulsions, thoughts, or emotions and to improve relationships and social functioning. Certain psychotherapies are considered evidence-based for treating some diagnosed mental disorders.³⁴⁵

There are numerous scientific publications pertaining to experiments using classical music to aid in healing all kinds of mental illnesses. For various emotional disturbances and negative mood modifications, the music of Bach, such as his cantatas and oratorios, as well as Schubert's song, "An die Musik" have proven very beneficial for patients.³⁴⁶ Classical and Baroque music were demonstrated to effect significantly better improvement for several disorders like the management of acute pain, cancer pain, and labour pain. Overall, classical and baroque music are found to "decrease the frequency of depressive symptoms and also stimulate beneficial feelings and decrease levels of depression."³⁴⁷

In the field of psychotherapy, various articles refer to findings which conclude that listening to or performing music elicits for their patients profound experiences that influence their moods, thoughts and perceptions. These modern findings support the "age-old application of music in the treatment of what ails us humans, whether physically, emotionally or spiritually."³⁴⁸

345. "Psychotherapy."

346. Pikler (1961), pp. 319-20.

347. Castillo-Perez, Gomez-Perez, Velasco, Perez-Campos, and Mayoral (2010), p. 389.

348. Nelson and Weather (1998), p. 104.

5.12 Palliative Care

Therese Schoreder-Shrek founded the Chalice of Repose Project, a palliative hospice program combining music and medicine, now based in Missoula, Montana at Saint Patrick Hospital. She calls her work Music-thanatology, signifying the science of death and dying. Chalice members work in teams of two, playing harps, singing, and chanting, performing for a variety of conditions, including cancer, heart disease, respiratory illness, and AIDS-related syndromes. This music helps to restore the dignity, intimacy, and immediacy of dying, and often has a positive effect on family members as well as the dying patient.³⁴⁹ In the late 1980s, there were few support systems to assist people who were dying alone but in the 21st century more and more options are becoming available and days of dying alone and unattended are largely less common. Further research and development is required to fully understand this aspect of music but the mass of evidence is mounting and includes functional ideas and methods that indicate that classical music aids in child-birth and other areas such as pre-surgical procedures. The “hard” or empirical evidence is slowly building but “how is it that music can, without words, evoke our laughter, our tears, our highest aspirations?” is a question posed by Jane Swan³⁵⁰ that only begins to scratch the surface with respect to the transformative power of “the sacred art.”

349. Campbell, *The Mozart Effect*, pp. 211-13.

350. Bush, p. 11.

5.13 Dr. Oliver Sacks (1933–2015)

Sacks particularly builds upon the suggestion of the American philosopher William James, a founder of psychology, that music has great therapeutic potential for patients with a variety of neurological and other conditions. Sacks writes regarding the enormous benefits of the right kind of music for people with Parkinson's and other movement disorders including Alzheimer's, dementia, autism, William's Syndrome, Aphasia, Tourette's Syndrome, Huntington's Disease, stroke, and others. In addition, he cites examples, including his own personal experiences, of how the healing of injuries caused by accidents were often sped up significantly by singing and by listening to music, which he says can "kick-start a damaged or inhibited motor system into action again." Sacks claims that Mendelssohn's Violin Concerto in e-minor enabled him to heal far more quickly after his own hiking accident and to walk again as it served to kick-start his damaged motor system.³⁵¹

In 1991, Oliver Sacks testifying before the US Senate Special Committee on Aging, commented on the therapeutic powers of music in treating neurological disorders. He described Rosalie, a patient with Parkinson's disease, who remained transfixed, completely motionless, for most of the day, usually with one finger on her glasses. "But she was very musical, and loved to play the piano. As soon as she sat down on the piano bench, her stuck hand came down to the keyboard, and she would play with ease and fluency ... Music liberated her from her parkinsonism for a time—and not only playing music, but *imagining* it. Rosalie knew all Chopin by heart, and we had only to say "Opus

351. Sacks, *Musicophilia*, pp. 255, 257.

49” to see her whole body, posture, and expression change, her parkinsonism vanishing as the F-minor *Fantasia* played itself in her mind. Her EGG, too, would become normal at such times.”³⁵²

It is well known that musical memory is often retained when verbal memory or function has disappeared, such as in Alzheimer’s disease. Also the pervasive emotional power of music can affect musical memory positively and music is very important in the rehabilitation of patients with brain damage.³⁵³ Sacks describes numerous other case histories of how music transforms an ill human being, whether from severe conditions such as Tourette’s syndrome, where for example a patient who typically endures 40,000 tics per day is only relieved of this when he plays Bach at the piano, at which point there is not a hint of Tourette's syndrome.³⁵⁴ Numerous other studies reveal the importance of playing music in healing on the psychological and physiological health of individuals as music engages and activates multiple regions of the brain. As well, “In addition, playing music in rehabilitation can improve attention, emotion, cognition, behaviour, and communication skills.”³⁵⁵

5.14 Dr. Alfred Tomatis (1920–2001)

The findings of Dr. Alfred Tomatis have become paramount in sonic research. Tomatis, an authority in auditory neurophysiology, claimed that the music of Mozart effects change in both the mind and the body. Tomatis explains that the ear is the first

352. Ibid., p. 278.

353. Samson, Dellacherie and Platel (2009), p. 253.

354. Sacks, p. 251.

355. Zimmerman and Lahav (2012), p. 182.

sensory organ to develop and is fully functional four months before we are born. Hearing has enormous effects on the rest of the body, and can be a therapeutic agent for illness throughout the body.³⁵⁶ “The vocal nourishment that the Mother provides to her child is just as important to the child’s development as her milk.”³⁵⁷

A vast list of illnesses have been treated and ameliorated through the Tomatis method with high-frequency sound therapy through Tomatis’ invention of the electronic ear that uses filtered sound, primarily using the music of Mozart, the mother’s voice, and Gregorian Chant.³⁵⁸ This list includes stuttering, dyslexia, attention deficit disorder, depression as well as a host of neurological disorders.³⁵⁹ Tomatis said: “I do not treat children. I awaken them.”³⁶⁰

Tomatis is given credit for being the first to appreciate the important distinction between hearing and listening.³⁶¹ Hearing does not require focusing to pay attention, and is therefore less demanding than listening. “When hearing gives way to listening, one’s awareness increases, the will is aroused and all aspects of our being are involved at the same time. Concentration and memory, our tremendous memory, are testimony to our listening ability.”³⁶² The Tomatis program involves a course of audio stimulation generated by using the music of Mozart. For 200 years musicians, composers, conductors, critics and historians have described Mozart’s music as transcendent and

356. Bradford S. Weeks, “The Ear and Sacred Music,” in Campbell, *Music Physician for Times to Come*, p. 35.

357. Campbell, *The Mozart Effect*, p. 13.

358. *Ibid.*, p. 23.

359. Campbell, *Music Physician for Times to Come*, pp. 51-52.

360. Campbell, *The Mozart Effect*, p. 45.

361. Weeks in Campbell, *Music Physician for Times to Come*, p. 44.

362. Thompson, “Listening Disabilities: The Plight of Many,” p. 132.

divine. Tomatis says that “the powers of Mozart, especially the violin concertos, create the greatest healing effect on the human body.”³⁶³ Tomatis found that Mozart’s music calms listeners and improves spatial perception and allows them to express themselves more clearly, communicating with both heart and mind—true whether in Tokyo, Cape Town or Amazonia.³⁶⁴ He says Mozart’s music has a “liberating, curative ... healing power ... elegance and deeply felt sympathy in his music—serene art—innocent inventiveness—a sonic Vitamin C.”³⁶⁵

There are innumerable case histories to cite, but perhaps the most popular one is the story of when, in the late 1960s, Tomatis was summoned to investigate a strange malaise that had descended upon a Benedictine monastery in the south of France. The brothers had become listless, fatigued and depressed. Their condition had stumped many leading European specialists. Tomatis found 70 of the 90 monks “slumped in their cells like wet dishrags.” Tomatis determined that the cause was audiological and not physiological. Their state was the result of eliminating several hours of Gregorian chant from their daily routine. He put the monks back on their diet of Gregorian chant and the effect was dramatic. They were used to chanting eight or nine times a day for ten to twenty minutes at a stretch. Within six months the monks were once again vigorous and healthy and they needed less sleep.³⁶⁶

363. Campbell, *The Mozart Effect*, p. 22; Rob Minson, “A Sonic Birth” in Campbell, *Music and Miracles*, p. 91.

364. Campbell, *The Mozart Effect*, p. 27.

365. *Ibid.*, pp. 27, 29, 48.

366. Campbell, *The Roar of Silence*, p. 93.

Campbell describes chanting as creating a reawakening of the consciousness.³⁶⁷ Olivier Messiaen said that “Plainchant alone possesses all at once the purity, the joy and the lightness necessary for the soul’s flight towards Truth.”³⁶⁸ Charles Gounod said “plainchant is therapeutic: It’s resonances have a beneficent effect on the body and psyche ... it is therapeutic ... it calms, it awes, it uplifts ... (and) is a vehicle which can take one as high as one is capable of going ... plainchant ... offers to each what he or she is able to receive.”³⁶⁹

Concert pianist Daniel Barenboim also emphasizes that “the importance of the ear cannot be overestimated and neglect of it leads to further impoverishment of our sense of hearing and encourages us to hear without listening ... listening is hearing with thought.”³⁷⁰ Barenboim writes about Muzak as being an example of hearing music without listening to it, that “this misuse of music will not convert a person into a classical music lover ... Muzak is intended to replace the participation of the intellect with passive consumption. It makes one not be able to have a musical experience.”³⁷¹ The brand name Muzak is one of the most prominent programmed music services in North America for all “easy listening” music. “Essentially, the use of programmed music in a shopping mall is about the production and consumption of consumption ... a store deploys programmed music as part of a fabricated environment aimed at getting visitors to stay longer and buy more ... A great deal of market research shows that the presence of quiet, leisurely music

367. Ibid., p. 94.

368. Godwin, p. 53.

369. Ibid., pp. 54-55.

370. Barenboim, *Everything is Connected The Power of Music*, pp. 25, 37.

371. Ibid., p. 39.

increases the duration of shoppers' visits. In other words, programmed music can become a key that frames the experience of shopping in a store."³⁷²

"Great musical masterpieces are conceptions of the world," according to Barenboim. When one listens actively, associations and thoughts are awakened much more and this allows one to "think in a way that is a school for life."³⁷³ Listening well creates a range of positive effects, including improved vocal control, more energy, a better disposition, and even improved handwriting and posture.³⁷⁴ Brain imaging demonstrates what occurs in the brain when even just listening to music.³⁷⁵

There are innumerable writings on the benefits of classical and pleasant consonant music that is familiar to the patient, to aid in healing patients of virtually every known disease, condition, and illness. But children of all ages, whether emotionally or physically disturbed or not, find physical and mental release and joy in active music participation, and listening. Singing appears to be very important for people of all ages, which harkens back to ancient Greek society where all individuals learned to sing, with singing and instrumental music-making promoting health and good moral character. Bonny maintains that there are great therapeutic benefits that classical music provides patients in hospitals, clinics and experimental centres, but that these can happen anywhere and be enjoyed and be of enormous benefit to everyone, whether listening individually or listening together

372. Sterne (1997), pp. 34, 35, 38, 42.

373. Barenboim, p. 182.

374. Campbell, *The Mozart Effect*, p. 53 and others.

375. "Inside Oliver Sack's Brain."

in a group. “Listening together can enhance the listening experience and lead to a heightened state of consciousness.”³⁷⁶

For children who are traumatized or challenged physically or mentally, collective music-making “gives them an opportunity to build creativity, self-respect, and a sense of identity, and the chance to tell their story and to use the social power of music to raise awareness of their situation in a wider world.”³⁷⁷ Music provides the same benefits for children who are not traumatized or challenged either physically or mentally. All children deserve to be nurtured by good music and music-making from early on in their lives, benefitting from music’s many gifts, from the numerous cognitive advantages to fun and relaxation, joy, personal creativity and self-expression, self-belief, self-respect, the expression of social identity and bonding, confidence, communication and more.³⁷⁸

Jourdain writes: “the magic that music works on Parkinson’s patients is no different from the magic it works on us all. It lifts us from frozen mental habits and makes our minds move in ways they ordinarily cannot. When we are embraced by well-written music, we experience understandings that outstrip those of our mundane existence, and that are usually beyond recollection once the music stops ... music organizes our brains in a way that ordinary chaotic experience cannot.” It is a preventative of disease and a healer also in the global sense for the individual human being—it nourishes the soul. We must not wait until we are in advanced stages of

376. Bonny, *Music and Your Mind*, p. 19.

377. Osborne (2012), p. 73.

378. *Ibid.*; Sacks, e.g., pp. 101-3.

Parkinson's or Alzheimer's or any disease or condition to have music soothe us and make our lives better and improve our living years.³⁷⁹

379. Jourdain, pp. 303-4.

Chapter Six. The Vision in Action: Euterpe

Don't explain your philosophy. Embody it.

Epictetus (c. 55–135 CE)³⁸⁰

6.1 Overview of Chapter Six

This chapter, together with materials in the appendices and presented separately, documents how I personally am contributing to the subject I write about. The chapter draws on aspects of my thirty-year career as an active concert pianist, and particularly treats the work of Euterpe, the musical organization I founded for the purpose of ensuring that as many young children, as well as others, are exposed to live, high caliber performances of classical, jazz and related popular styles.

6.2 The Origins of Euterpe

My personal credo in the power of music as a healing balm, a remedy for ill, a preventative and recuperative process manifest itself in the creation of Euterpe, a not-for-profit charitable organization. This entity embodies my personal philosophy and is rooted in my own extensive personal experience as a music practitioner who, over time, began to recognize certain unique qualities inherent in the sonic wash of musical performance.

380. “Epictetus Quotes”; see also Epictetus, *A Selection from the Discourses of Epictetus with the Encheiridion*, George Long, trans., sections XXII and XXIII.

This conceptual entity is not conceived as a performance ensemble in the traditional concert sense but as a visionary way to share quality music with individuals—a means of supporting and promoting health and healing through “controlled consonant vibrations.” This philosophical view, that music generates a tendency towards and supports wellness, is realized through a practiced-based activity. This includes a variety of techniques and approaches which seek to generate positive energy, healthy responses, and a liberating awareness of an individual's life scenario.³⁸¹

Over the many years of performing concerts as a soloist and ensemble member, one of any performer's greatest rewards is positive audience response. No matter the concert location or the audience (pre-school to octogenarian, for example), performers are nourished by applause, congratulations, and positive comments. However, there is another more elusive aspect to the performance experience that is often overlooked or perhaps merged with the accolades. This nebulous “thing” is the actual effect the music has on the listener during the act of hearing the music. I believe that the performing artist is able to actually feel the effect that quality music-making is having on audiences even while still on stage performing. One senses the existence of a positive communicative “mood” or connection. The reaction of music lovers, peers, and critics consistently highlights the depth of emotion communicated no matter the repertoire. It is my firm

381. Examples of the techniques and approaches are outlined in the sample teacher's guide, which is Appendix F. Please also view Euterpe's published DVD “Music is the Key” which captures “live” a Euterpe performance program, demonstrating some of the techniques and approaches employed. This DVD is on Euterpe's website: www.euterpemusicarts.com.

belief that heart-felt expression of musical “emotion” makes such a positive experience for audience members that they are fundamentally changed.³⁸²

It is also important to note that this “change” does not seem to be predicated upon any prior musical training or artistic education on the part of the listener. Following a performance, many audience members typically engage the artist(s) for extended periods of time wanting to personally convey specific and general aspects of their response to the music. This “sharing” of information can vary from a simple statement of enjoyment to comments about how profoundly the music moved them. Why do people feel the need to express their feelings about the music? It is true that some people focus on specific repertoire or technical aspects of a performance but most reveal something of the physical and emotional experience, how they were embraced, caressed, held, soothed, excited or calmed by the music. German philosopher Arthur Schopenhauer (1788-1860) may have had this experience in mind when he wrote, “Music ... is the most powerful of all the arts, and therefore attains its ends entirely from its own resources ... What music expresses is the inner spirit.”³⁸³

When performing as part of a subscription concert series, artists often have the opportunity to perform in schools and for seniors (usually on the afternoon before an evening concert). These performances are often referred to as outreach performances, something a visiting artist will add to a booking upon the request of a concert presenter and this is a common feature of many careers. To enumerate the number of outreach

382. Thompson, *Music in the Social and Behavioral Sciences*, pp. 76-77.

383. Storr, *Music and the Mind*, p. 128.

performances I have given over the years would be impossible but there have literally been thousands of them. Other significant “outreach” experiences include numerous performances in hospitals for the patients. Early in my career I received an invitation from George Garlock, a community minded writer and public relations specialist, who sensed the link between arts and health and facilitated performances for patients at Princess Margaret Hospital in Toronto.³⁸⁴ These performances particularly reinforced my emerging vision and interests with respect to music as a healing art.

I had an awakening of sorts, realizing that my personal joy and satisfaction in performing was intensely augmented by the response and reaction evident among individual audience members. I am not referring to post-performance applause or compliments but something far more subtle. While I was playing I began to notice small changes in individuals—a softening of stiff posture, less tense body language, a generally more relaxed demeanour which seemed to communicate inner peace and calm satisfaction; more smiles and a unity of mood seemed a normal result. Post concert there was more laughter and shared conversations among strangers. As time passed I began more fully to understand how music helps people who share in these live performances: they experience a form of positive energy which supports a general feeling of “wellness.” There was no rush of wind, no flames of fire, and my ability to speak in tongues was limited to a single universal language—music! My epiphany was not instant but the result was one of a lengthy and very gradual evolution.

384. See Appendix B.

A somewhat more complete personal realization came during the fall of 2003, although it is difficult to precisely pinpoint the specific catalyst or exact moment. Certainly, reflecting upon a career of more than fifteen years at that time was a significant factor, not least because of the increasing dominance of the performance arts during that time by highly commercialized digital media. A further stimulus was widespread reporting of cutbacks in all aspects of the arts in education, particularly school music programs. These were the programs that had so benefited my own generation and it became obvious that action was required to ensure that as many people as possible had the opportunity to experience high caliber live music performances. It seemed particularly critical to reach children during their formative years with this kind of nurturing experience as a means to help shape lives in ways that last a lifetime.

Consultation with friends and colleagues, many of whom have offered advice in the past, led to a crystallization of ideas. Most of these people were actively involved in music or had been previously but had since transitioned to other professions. A few other advisers were listeners who simply enjoy music profoundly. One common thread among those initially consulted and others who offered support later is that everyone made live performances of high quality music an integral part of their lives. All these people also had important early exposure to music through school programs. Early discussions explored possibilities for a program creation that would make high quality, live music available in a structured way to those who are not exposed to these opportunities. Challenges limiting concert experiences might be due to financial constraints, poor health, or cut backs in educational budgets which limit school programs in the arts.

These steep reductions in opportunities in the school system affect many children, so youth was specifically selected as a target group. Sponsored performances in the schools and other institutions such as hospitals were an obvious priority. Simply adopting a traditional performance approach would not be enough in view of the paucity of previous experience for so many children—and others. There would have to be structured interaction between the performers and the audience to allow people to learn more about what they were hearing and how best to experience the music. It was important to acknowledge that the target audiences would, in most cases, have had very little exposure to some of the most fundamental ideas about music. The level of ignorance might extend from the lack of knowledge of instruments to such basic concepts as rhythm, melody and harmony without ever moving on to what the music was endeavouring to represent, communicate or embody.

One early challenge was easily resolved with the selection of the name of the project. Euterpe, the ancient Greek muse of music, lyric poetry and joy seemed to offer the perfect nominative figurehead and struck everyone involved in the planning as the perfect choice to represent the vision.



Figure 6: *Cleo, Euterpe and Thalia*, Eustache Le Sueur (1615-1655)
(<http://www.louvre.fr/en/oeuvre-notices/clio-euterpe-and-thalia>)[reproduced with permission]

6.3 The Challenge of Funding

Funding is always a challenge for any not-for-profit organization, especially those with elusive and visionary goals. Numerous events would be required to have a significant impact and the interactive aspects of the program had to be developed and tested. Professional performers were necessary and compensation was essential to ensure quality repertoire selection and adequate performance standards. Publicity and promotional work, fund-raising, and managing arrangements with host institutions demanded skilled participants. An obvious strategy was to obtain charity status for the organization so that tax receipts could be issued to supporting donors. Legal consultation, incorporation, registration with the Government of Ontario, and an application to the Canada Revenue Agency for charitable status were required. The Canadian Revenue Agency demanded precise documentation and articulation of objectives and detailed plans for achievement of those objectives. Past abuses of charitable status had compelled the agency to ensure that the registration and approval was rigorous. The approval process required three years and only came to fruition after reminding the agency that high quality cultural programs, particularly including classical and jazz music, were automatically eligible under the agency's own guidelines. An unexpected benefit resulting from the repeated requests by the Canadian Revenue Agency for fuller documentation was that the core group met often to discuss, refine and clarify intentions, imagine the resultant accomplishments and consider alternative methodology and potentially relevant techniques. An analysis and summary compilation of Euterpe's working documents including brief descriptions of completed projects follows.

6.4 Program Development

Euterpe, which has been active as a not-for-profit charitable musical organization since 2006, preserves, promotes and celebrates diverse musical cultures and heritages by providing live, interactive performances of music. The ensemble is staffed by established world class performers who perform on high quality acoustic instruments. The main audience focus is youth and others who are not exposed to acoustic audience opportunities. Youth in the Greater Toronto Area (GTA) was the initial primary target constituency, and the scope later expanded to become nationwide. Euterpe offers highly developed, imaginative, educational programs that combine classical, jazz, and related popular styles.³⁸⁵ Euterpe's initiative presents a rich musical heritage that is the culmination of many diverse cultures, from Eastern and Western Europe through to African, South American, North American and more, and the equally important heritage of live performances of these musical genres.

Western classical music reaches back several millennia and across numerous cultures. This includes religious music, notably the musics of the Christian churches, and concurrently the folk musics of Eastern and Western Europe. Western classical music, as it exists today, is mixture of a vast array of different influences. Jazz, from its largely Afro-American origins in New Orleans at the beginning of the twentieth century, built on European forms (among others) as its popularity—and community of performers—grew

385. Popular styles include “traditional popular” music. A useful descriptive example of “traditional popular” music is what is known, especially among jazz and popular performers, as a “standard”: “a timeless, aesthetically transcendent, and culturally distinctive popular song.” Keightley (2001), p. 9. See, generally, Clarke, *The Rise and Fall of Popular Music*; Wilder, *American Popular Song*.

across the United States and internationally.³⁸⁶ There is a very important and strong relationship between the classical stream and jazz, including related popular styles such as traditional popular music that draws on both genres.

Western classical music, jazz (and the musics from which jazz evolved such as blues, ragtime and other traditional popular forms), have had a cross-pollination over more than a century. Composers such as Antonin Dvorak and Frederick Delius borrowed from African-American work songs while Claude Debussy, Maurice Ravel, Igor Stravinsky and Darius Mihaud all took an interest in early 20th-century American styles of jazz, ragtime, and Latin influenced rhythms such as the tango and the Charleston. Some specific examples of ragtime influenced European repertoire include Debussy's "Golliwog's Cakewalk" and "Le Petit Nègre"; Stravinsky's "Ragtime"; Mihaud's "La Création du Monde" and South American forms; and Georges Bizet's use of the tango ostinato figure in "Habanera" from his opera *Carmen*. Composers such as Scott Joplin, who wrote the folk opera *Treemonisha* and many ragtime waltzes such as "Bethena" and "Pleasant Moments" modeled their works after the European classical forms. Joseph Lamb's "Ragtime Nightingale" features an opening motif modeled after Chopin's Étude Opus 10, No. 12 in C Minor, also known as his "Revolutionary Étude" and features harmonic progressions that are much more complex than the typical folk rag. Astor Piazzolla expanded his personal commitment to the art of fugue writing by studying the fugues of J. S. Bach. His blending of Latin rhythms and contrapuntal techniques resulted

386. For an overview of the much contested origins of jazz see Lussier, "An Analysis of Completeness and Historical Accuracy in the Most Commonly Used College Jazz History Texts."

in masterful fugues such as “Fuga Y Misterio” and “Fugato” as well as many others. George Gershwin, a composer of popular music, longed (much like Scott Joplin) to hear his works performed in concert and with the same respect that was given to European classical music. His “art music” output included *Three Preludes* for solo piano, the opera *Porgy and Bess* and concert works *Rhapsody in Blue* and *Concerto in F* for piano and orchestra plus *An American in Paris* for orchestra. Duke Ellington, Gil Evans, Gunther Schuller, and Dave Brubeck availed themselves of various European classical techniques.³⁸⁷ Miles Davis based his *Sketches of Spain* recording on the *Concierto de Aranjés* by Spanish composer Joaquin Rodrigo and was planning a jazz version of Giacomo Puccini’s *Tosca* before he died.³⁸⁸ That this diverse cultural heritage deserves to be promoted within the multi-cultural fabric of our society became a fundamental part of the credo of Euterpe.

Euterpe recognizes the interconnections among genres that have typically been separated in concert offerings even to this day. The contemporary music student, moreover, is usually not engaged with multiple traditions; jazz, classical, and popular repertoire remain separate in most programs. Euterpe celebrates the excitement and learning that comes from exposure to the intersections and distinctiveness of these genres by combining them in playful, interactive, educational, high-caliber performances.

The Euterpe programs are unique and produced independently but are also based

387. Blesh and Janis, *They All Played Ragtime*, pp. 7, 8, 11, 74, 204; Schafer and Riedel, *The Art of Ragtime*, p. 217; Clarke, pp. 83, 271, 406; Wilder, p. 179.

388. Cook, “Miles Davis: ‘Coltrane was a very greedy man ...’—a classic interview from the vaults.”

on specific learning objectives, such as those in the Toronto District School Board (TDSB) Music curriculum. In November 2011, *Music is the Key* was filmed live at Rose Ave. Junior Public School, Toronto. This production documents the reactions and responses typical of every school. Performances are realized on quality acoustic instruments by established world-class performers, thereby introducing the school children to musical experiences that are otherwise available only to the paying public.

During the performances, children have the chance to explore the Euterpe artists' musical instruments (more and more public schools do not have properly functioning instruments). One of Euterpe's supporters is Merriam Pianos, who sponsored the rental, two-way move and tuning of the Fazioli concert grand piano performed in the *Music is the Key* DVD and the beautiful Kawai grand piano featured in the additional live film footage that was taken at Knob Hill Public School in Scarborough in June 2012.³⁸⁹ (Merriam Pianos continued to provide Kawai grand pianos throughout 2012 through to the completion of the public school year in 2013.)

There is compelling scientific documentation that has demonstrated that active participation in listening to and making live music has profound educational and health benefits, and that the earlier a child is given the opportunity the better.³⁹⁰ The evidence stresses that listening to and participating in making music— together with other aspects

389. See DVD at www.euterpemusicarts.com; supplementary film footage is available on Euterpe's website, www.euterpe-canada.com.

390. Reports on laboratory research on the impact of music-listening and music-making on brain development of infants include: Herholz and Zatorre (2012); Hyde, Lerch, Norton, Forgeard, Winner, Evans, and Schlaug (2009), pp. 182-86; Jentschke, and Koelsch (2009), pp. 735-44; Trainor (1996), pp. 83-92; -----, Marie, Gerry, Whistkin, and Unrau (2012), pp. 129-38; -----, Lee, and Bosnyak (2011), pp. 192-203.

of music education—gives multiple benefits, from enhancing academic learning³⁹¹ and social skills³⁹² to physical and mental health.³⁹³

Particularly striking has been experience with special education students. Their teachers have come to me in tears following some performances, the result of seeing the students, some as young as 4 years of age, come alive to the music. These are children who, the teachers explain, are normally expressionless and silent in the face of all efforts and techniques to engage them. It was the music at the Euterpe performances that awakened these children, making them excited and happy.

Nevertheless, music education and the opportunity to experience concerts, especially high caliber performances of classical, jazz, and related popular musical styles, have been severely reduced in public schools. Music as a subject remains in the curriculum, but often the teachers assigned to teach music do not have proper training, and many of these teachers have no music background; and, there is often insufficient budget for new instruments or maintenance of existing ones.

To help address the paucity of resources, Euterpe referenced the TDSB music curriculum to develop a teacher's guide that offers music teachers, and non-music teachers who have been assigned to teach music, specific step by step activities; the

391. Schellenberg (2011), pp. 283-302; ----- (2004), pp. 262-78; Thompson, *Music in the Social and Behavioral Sciences*, p. 8.

392. Gerry, Unrau, and Trainor (2012), pp. 398-407; -----, Faux, and Trainor (2010), pp. 545-51; Kirschner and Tomasello (2010), pp. 354-364; Thompson, *Music in the Social and Behavioral Sciences*, pp. 533-34, 1014-15.

393. Zimmerman and Lahav (2010), 179-84; Thompson, *Music in the Social and Behavioral Sciences*, p. 996.

package includes listening examples on CDs that have been created for this purpose.³⁹⁴ Children are thus introduced to basic musical forms in a colourful, interactive way, initially through the Euterpe performances and then in the classroom with these teacher guides. Among many other educational instructional aspects is the introduction to and demonstration of various musical forms, from all kinds of dance forms (in which the children participate by dancing to the live Euterpe performances), to canonic forms from simple rounds to more advanced forms such as the fugue. Again, in the performances the Euterpe artists involve the child in identifying, describing and responding to the various forms. Attached, at Appendix F is a sample Euterpe Teacher's Guide which is supplemental to one specific Euterpe program. A Euterpe goal is to conduct workshops for non-music-teachers who are responsible for music in the public school system.

At all Euterpe performances, the children are encouraged to draw or write or move according to whatever inspires them as they are listening to the live music. If the piece is a waltz, for example, the group demonstrates the waltz step, and explains other musical aspects of that particular piece before it is played. In the case of the "Waltzing Cat" by Leroy Anderson, to take one instance, the string players show how the "meow" sound is replicated alternately by the violin and cello, so the children can follow that motif. As a result, Euterpe has collected thousands of pieces of the children's artwork³⁹⁵ which are representative of how these musical experiences affect each child. Euterpe also captures the experience of the children at its interactive performances by conducting qualitative

394. See repertoire in Appendix E.

395. See Appendix G for examples.

descriptive research studies whose development has been overseen by Dr. Laurel Trainer of McMaster University, *Music and the Mind*.³⁹⁶ As the art and studies show, children are inspired by these performances to want to hear more concerts of this music at this high caliber, and want to play a musical instrument. The vast majority of the children know which instrument they want to play after hearing these performances. Some of these children may become professional musicians and many may become concert-goers as a result of this formative exposure. Each of these children's lives will be enriched. The opportunities offered by Euterpe will therefore blossom within the children and ultimately strengthen the capacity and vibrancy of the community as the children will excel to greater capacities and be healthier and happier as a result. Healthier and happier children result in healthier and happier communities overall.

Music participation, which includes concert going, has traditionally brought entire communities together for all kinds of reasons and occasions. How sad it would be that families will no longer go to hear their children's school concert band or string orchestra in performance at the children's school due to there not being adequate teaching of these instruments and/or there not being instruments available. If we don't foster the love of great music in our children and create the audiences of the future, the cultural institutions of symphony orchestras, concert bands, chamber music, solo performers and much more that developed over the centuries and are such an integral part of our social fabric will continue to weaken and disappear.

Only a few generations ago, music education and live music were accessible and

396. Examples of the Qualitative Descriptive Research Studies are in Appendix D.

widespread, a normal and expected part of life. Now, vitally important musical opportunities are not available to the vast majority of children in the province of Ontario, for example.³⁹⁷ The common way music is experienced is through a headphone connected to a digital device. Contemporary society is in danger of losing the social and economic benefits of the experience of listening to and making music together. If the seeds of music are not planted in youth, the long-standing cultural musical institutions that are such a vital part of our society's social fabric will continue to disintegrate.

6.5 Other Euterpe Projects

In March 2009, Euterpe became the first presenter of classical music to be part of Canadian Music Week. The bands and soloists performing for Canadian Music Week in Toronto are typically rock, pop, indie, and folk, with some jazz and world oriented performers. The Euterpe performances, which were held at Toronto's Arts and Letters Club, were also successful as fund raisers for Euterpe. Other highlights include Euterpe's collaboration with Harbour Front Centre for the "What is Classical?" three-day International Music Festival. For this occasion, Euterpe artists performed a newly written work by Canadian composer John Burke which was composed with the intention of the listeners walking the labyrinth. A full scale replica of the famous Chartres Cathedral Labyrinth was created for this event and the Euterpe artists performed while hundreds of people of all ages walked the labyrinth. This was all free of charge for all participants, no

397. See Appendix D for Qualitative Descriptive Research Studies conducted among thousands of public school students in the GTA. These studies demonstrate the deprivation from access to high quality music, both live concerts and musical training, and also demonstrate the thirst among the children, no matter the demographic, for this music.

matter the age. This ancient practice creates in the listener a deeper state of awareness, engaging the listener in a participatory, meditative listening experience. Euterpe was awarded a grant from the Ontario Arts Council to record this newly composed music for walking the labyrinth. Other highlights include the creation of the CD entitled *Journey to the Centre of Life* which was created to complement one facet of Euterpe's offerings—a musical journey parallel to the journey through life by an individual. This “musically moderated process” enables the listener to be guided and transported through various life scenarios and emotions. The enabling catalyst is a quality musical experience performed by world-class artists.

Each Euterpe performance is a learning experience for the organization. An important example is responses from children about receiving musical training. Euterpe has therefore sought sponsorship and secured quality music training as well as instruments for students who have reached out. Yamaha Canada Music Ltd. has been tremendously supportive, sponsoring music lessons and instruments for Euterpe's initiatives, as has Victor Noziglia of The Toronto Piano Group. “The Story of Ismael” and “The Story of Jethro”³⁹⁸ are two of many positive examples that resulted from Euterpe's performances.

Another Euterpe initiative is to provide concert tickets to performances by Euterpe artists at such Toronto venues as the Glenn Gould Studio and the Heliconian Club. In collaboration with ongoing private sponsors, Euterpe ensures that upwards of

398. www.euterpe-canada.com/the-story-of-jethro/; www.euterpe-canada.com/the-story-of-ismael/.

twenty seats are reserved as “comps” for inner city children selected by community organization such as the Cabbage Town Community Centre.

Broadening beyond the GTA, Euterpe sponsors at least six tickets per Ensemble Vivant concert no matter where in the nation, to ensure that those who would not otherwise be able to attend will have that chance. As well, Euterpe helps sponsor outreach concerts for school children in all locales across the country to ensure that our school children are being enriched by this music. Euterpe’s vision is to significantly expand the sponsorship of outreach concerts for children,³⁹⁹ with the ultimate aim being multiple Euterpe performance programs occurring simultaneously in the GTA and elsewhere in the nation.

Various concert organizations and individual performing artists also recognize the immense importance of live quality music experiences for our youth. The Chamber Music Society of Mississauga, in Mississauga, Ontario, for example, publishes the following statement on its fliers and concert programs: “CMSM is renowned for producing professional, high-caliber, live music performances for young audiences. We passionately believe in the transformative power of the performing arts and in its capacity to positively affect the development and well-being of all the citizens of our community.”⁴⁰⁰ Internationally renowned violinist Moshe Hammer of Toronto has established his own organization which he calls “The Hammer Band: Violin Life Lessons

399. See, for example, Appendix C, letter from Dr. Kim Fedderson, Lakehead University, Orillia Campus, 25 June 2014 concerning Euterpe’s community outreach in Orillia and York-Simcoe County.

400. See also <http://chambermusicmississauga.org/mission-vision/>.

with Moshe Hammer.”⁴⁰¹ Percussionist Juan Carlos Medrano, who has worked with some of Canada’s top musicians,⁴⁰² is music director for Drum Artz’s successful “Samba Kidz,” for which he visits schools across the GTA, sharing his excitement and music with kids of all ages. He and his team have also been building a new program for at-risk youth in Toronto under the name “Baru Life.” Inspired by his own experience coming from Colombia and finding his path in music, Juan Carlos knows first-hand how music can help struggling youth find purpose and focus in their lives.⁴⁰³

Martina Schroer, president of the Concert Association of Huntsville, Ontario, declared in a press interview that music concerts have ““had a huge impact on the culture of this community for the past 35 years and it’s reason to celebrate ... Even in recessions, we’ve still felt that music is so inspiring and healing that we’ve done everything to keep offering it to the community.””⁴⁰⁴

6.6 Dr. Laurel Trainor

Dr. Laurel Trainor is the founding director of the McMaster Institute for Music and the Mind at McMaster University, Hamilton, Ontario (mimm.mcmaster.ca). Dr. Trainor has done ground-breaking work on music and the mind that corroborates the practical work I have done with Euterpe for over a decade. The Live Lab at the institute is

401. www.youtube.com/watch?v=BvOzRgkP9Cg.

402. including Hilario Duran, Jesse Cook, Roberto Occhipinti, Chendy Leon and, at the 2016 TD International World Music Festival, Ensemble Vivant.

403. barulife.com and sambakidzdrumartz.com.

404. Brownlee (2015). See also National Association for Music Education, “Early Childhood Education (Position Statement)”; “Music and your School-Age Child: Reasons to Love Music”; Andrea Lyman, “About A[ssociation for] W[aldorf] M[usic] E[ducation]”; New Britain Symphony Orchestra, “Young Peoples’ Concert.”

a state-of-the-art research facility “committed to developing a world-leading facility for the scientific study of music, sound, and movement and their importance in human development, health and society.”⁴⁰⁵

Dr. Trainor responded very positively to Euterpe’s published DVD “Music is the Key” and recognizes the “very interesting and valuable”⁴⁰⁶ work Euterpe is doing. She strongly advocates participation by children in music-making and is thus excited by Euterpe’s interactive performances. Hearing beautiful music performed live at the highest level does indeed plant healthy musical seeds, inspiring children to want to play a musical instrument, participate in music-making with others, and seek out more concerts of this caliber and of these genres.

Dr. Trainor was quick to point out that Euterpe’s programs realize in action what cognitive psychologists and other researchers have determined to be beneficial for children and others through ongoing experimentation whose results have been documented and widely disseminated. Without Euterpe’s work, for example, the scientific findings in and of themselves are not able to benefit our children and youth. Dr. Trainor’s written endorsement of Euterpe was most immediate: “The wonderful interactive high-caliber performances of classical and jazz music that Euterpe brings to

405. McMaster LiveLab: A Research Centre within the McMaster Institute for Music and the Mind, <http://livelab.mcmaster.ca/>, accessed 15 June 2016.

406. This and the following paragraphs are based on notes taken during a visit by me and Norman Hathaway, president of Euterpe, with Dr. Trainor at the McMaster Institute for Music and the Mind on 18 October 2012.

our children and youth are of vital importance for planting the seeds of music in our lives and putting people on a path to be enriched by the benefits of music.”⁴⁰⁷

During my visits to McMaster, I witnessed studies with infants in the infant auditory labs at McMaster. I am particularly interested in the study on “in sync” and how music fosters cooperation among the infants. My own observations with the Euterpe musical experiences echo these findings, as we witness the children’s joy and their feelings of happiness and comradeship with their fellow classmates, the excitement of sharing this musical interaction. At the lab I also witnessed the synchrony of movement which is consistently observed at all Euterpe performances as the children move to the music through conducting in the air, swaying, tapping their toes or their hands, or snapping their fingers, or just nodding their heads to the rhythm of the music; in the Euterpe interactive experience, the children also dance to the music. These common findings only begin to suggest the possibilities for future research projects by Euterpe and the McMaster Institute for Music and the Mind.

We also witness this from the children’s comments, which are extensive, as well as through their art work which they create during each Euterpe musical experience. The art work is often accompanied with written words expressing how the music made them feel and how happy they were and how it made them want to play an instrument and to make music. The most often repeated expression was that the music and the experience

407. Trainor to Wilson, e-mail, 23 October 2012.

made them feel very happy and made them want more and more of this feeling that excited them, made them calmer, took them to a happier place, and much more.⁴⁰⁸

408. See Appendices E and G, and, the DVD “Music is the Key.”

Conclusion

The work of the McMaster Institute for Music and the Mind embodies what has emerged as a central theme in this project: rediscovery. Chapter Two showed how Ancient thinkers and writers understood, and explored in detail through observations in their communities, the importance of music in all its forms to individual health and the health of societies. That understanding was lost in the scientific “Enlightenment” of the seventeenth and eighteenth centuries, with its almost blinkered focus on the material world and the purely physical aspects of individual existence and social development.

There was more than a little paradox in this narrow focus, because these same centuries saw a flowering in the musical arts of the Western world of Western tonal music that featured the sublime work of Johann Sebastian Bach and Wolfgang Amadeus Mozart, among many others—the very music that modern scientific and other researchers have found to have the most beneficial effects for health. At their very essence the qualities of such works are in the realm of the mystical or magical, a dimension of the powerful effects of music, addressed in Chapter Three, that ancient writers endeavoured to grasp, and that poets and visual artists have never ceased celebrating.

Chapter Four dealt with the rediscovery of the central role of music in human development. The title “Music in Homo Sapiens” signalled the central place in the story of Charles Darwin’s work in the nineteenth century on the evolution of the human species. Music, Darwin argued, was central to the symbiotic growth of the brain and the

capacity for speech, driving elements in human development. He thus directly contradicted the materialism of “Enlightenment” thinkers such as René Descartes (1596–1650), who viewed that acquiring knowledge about the world was based on deduction and perception. Music, according to Darwin, brought individuals to bond, in family and larger groups, and cooperate, especially in the protection of the young, and it was this bonding and the capacity to communicate and cooperate that was central to the intertwined physical and social growth of the human species.

Chapter Five probed further the development of the insights of ancient thinkers by evolutionists, anthropologists, philosophers, ethnomusicologists and by researchers and practitioners in the health sciences and care giving professions. Neurologists such as the late Dr. Oliver Sacks explain that music uses many regions of the brain, and often when words and other memories are long gone, music remains. Sacks is also prominent among those who are keenly aware of what philosophers and researchers do not know, and perhaps cannot know in full, or at least not yet—the element of magic and mystery in music, the ethereal.

The perspective in this dissertation is that of a performer, and Chapter One details how I came to the subject through my own experiences in my youth and then in a career as a concert pianist. That chapter also raises a second paradox: fewer and fewer people, especially children, have access to live, quality music at a time when research is demonstrating its benefits. Chapter Six rounds out that personal journey, exploring my work to bring the benefits of live music programs to those who most need those benefits. In these, as in all performances, the most meaningful reward is the effect the music has

on the listener, the effect of touching the listeners' hearts and souls in profound, even transformative, ways.

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APPENDICES

Appendix A: Examples of Testimonials from Children (Ages 6-9) and

Transcriptions Extracted from Comments Included with Their Artwork

“I love the music you play. It made me so happy. It made me want to sing and dance. When I was on the stage with you it was so exciting and fun and I was happy. When will you come back? Please come very soon. I love love love music.”

“My favourite part was when the pinoist played and the sound was super good. I even like the part when all of them played and we danced. It was so fun. I want to play instruments and dance too. I love you. I love the music. It’s so cool. ”

“I love the instruments. It’s soo relaxing musics and beautiful and sweet. Please play again.”

“So wonderful music. You guys and girls ROCK your music is awesom. sparkling shimmering miracle happinice intelligence flowing living graceful perfect

“I love your music. Can you play again soon?”

“Beautiful and Amazing. Every note is a story. From music from the heart comes happiness. Music and beautiful sounds. It tells a story and it tells different stories. My favourite kind of music. I feel this music. It gives me thoughts and excitement and ideas. It is magical.”

“Best ever. Love this music. Can you come back soon and next year when I am in grade 3?”

“Wow!! You guys and girls are amazing! I love your music. You ROCK piano for sure and trumpet and violin and guitar to. Love love love.

“The music is cool and funky. Made me want to dance then sounded like a lolaby. Fun and beautiful”.

“I forgot all my problems. I would like to play piano. The music was happy. The music was exciting. The music was amazing.”

“The music took me to a magic place I have never been before. I want to stay in that place.”

“This music makes me feel great and I think about amazing sights when I hear this great music. I love it.”

“I never heard this kind of music before. It is so cool and so peaceful and so happy. It made me so happy”.

“This music makes me feel happy. I never heard it before and I like it, I love it. This music makes me feel peaceful. It’s also fun to hear. I want to play music like yours too.”

“The music made me feel so happy and made me feel like I am in the future. It makes me feel free.”

“I am feeling so happy! It’s the best music I ever heard. I loved being a helper playing with them. It’s the best music ever.”

“I love the music the people play. It makes me the happiest I can be.”

Appendix B: Testimonial from George Garlock, Princess Margaret Hospital Lodge

In 1985 I was asked to produce monthly concerts for cancer patients at Princess Margaret Lodge in Toronto. The Lodge was situated near the old Princess Margaret Hospital and was essentially a “hostel” with high calibre nursing staff and a transportation system to bring out-of-town patients to Toronto for special treatment not available in their hometowns.

These patients were away from their loved ones, suffering from the ravages of a frightening disease and in need of many means of support, including morale-building musical entertainment. The Lodge was opened in the early 1950s by HRH the late Princess Margaret and operated by the Canadian Cancer Society. Its resident population usually numbered slightly more than 100, some in dire condition from extreme treatment regimes.

As a Canadian Cancer Society volunteer, I began playing the piano for weekly afternoon singsongs, gradually developing a routine of jokes, anecdotes and occasional visiting musicians and singers while fellow volunteers served tea. My predecessors were a generation ahead of me and were ready to hand over their favourite event...a monthly concert at which donated wine was served.

These concerts were at first staged from 4-5 p.m., just before dinner. In later years, they often took place in the early evenings. The talent was first class. I had been a CBC-TV publicist for 17 years and was connected to dozens of Canada’s elite performers, who came to Princess Margaret Lodge when asked.

The names of some are still familiar: Maureen Forrester, Doug Riley, Moe Kaufman, Jackie Rae, Trudy Desmond, Tommy Ambrose, as well as several others. These include Alanis Morissette; Carol Welsman,; Salome Bey; Canadian Opera Company singers Joan Hall and Jean Edwards; Ezra Schabas, former head of the Toronto Royal Conservatory of Music; pianist and founder of the popular Classical Cabaret at the R.O.M., Ruth Morawetz; Hollywood and Toronto vocal coach Elaine Overholt and her students; folk singer John Allen Cameron; jazz pianist and percussionist Don Thompson; and several professional guitarists and singers.

A regular from the beginning was pianist Catherine Wilson and her Trio Vivant (now called Ensemble Vivant) with her two musicians, who also have gone on to distinguish themselves: Amanda Forsythe, principal cellist of the National Arts Centre Orchestra, and Marie Berard, concert master of the Canadian Opera Company Orchestra. I quickly realized the intensity and empathy that Catherine Wilson brought with her to the Lodge and wrote the following thank-you letter to her:

Dear Catherine,

The effects of your performance last Wednesday before an enraptured audience in our Princess Margaret lounge are still being felt. So many patients have asked when you will play here again, and all of them want to hear your CDs all day long in the meantime. You “treated” our patients in ways that only extraordinarily exceptional music-making like yours can do. Each time you play for our patients your deeply sensitive, expressive piano playing feeds and nurtures their souls and uplifts their morales. It is like the warmest most healing sunshine penetrating deep into the psyche, as well as the entire physical and spiritual being. Many fine artists have performed here for our patients, but your magical playing possesses qualities that go beyond even the exceptional; divine qualities that transform, enchant and stir the listener to the deepest levels of their mind, body and soul.

Thank you again Catherine. Yours ever so humbly and gratefully,
George Garlock, Chairman, The Princess Margaret Hospital Lodge Aperitif
Committee (Toronto, Ontario)

I began to recognize the power of music during the Second World War, as I often played the piano and harmonica (simultaneously) for soldiers and sailors at army and navy barracks. Later on in high school and university, the power of music to attract girls was further proof.

One day many years ago, at Princess Margaret Lodge, I vividly remember the head nurse telling me that the night following one of our concerts was the quietest night of the month for her nurses. The nurses showed it by their eager support for our concerts and their requests to play back-up music and provide entertainers for their annual Christmas concert for their patients.

One of my favourite anecdotes illustrating the power of music involves my visits to my late father, in his last days at an old age home in Thunder Bay. I approached the head nurse and offered to play the piano for the residents. She asked me to play each day at lunch. My heart went out to the ones who were slumped over their plates, barely touching their food. At the end of the first week, the head nurse stood beside the piano and when I paused and, she said..."I'm sending you a big bill."

My flash of anger quickly subsided as she continued, "Since you've been playing, the food consumption has gone up." She was spoofing about the bill, but not about the power of music.

Appendix C: Testimonial from Dean Kim Fedderson, Dean and Vice-Provost, Orillia Campus, Lakehead University



Dean and Vice-Provost
t: (705) 330-4008 Ext. 2012
kfedders@lakeheadu.ca

June 25, 2014

Ms. Catherine Wilson

Dear Catherine,

We are very excited that Euterpe has agreed to become part of The Leacock Centre, Lakehead University's community programming initiative in Orillia.

Working with our community partners, The Leacock Centre at Lakehead Orillia will be providing continuing education programming throughout the year to a variety of learners—children, young adults, mid-career professionals, and retirees—interested in pursuing personal interests and adding to their personal and professional competencies. The initiative was established a year ago, and working in conjunction with a variety of partners—The Mariposa Folks Festival, The Leacock Museum, The Canadian Authors Association, The Federation of Ontario Naturalists, and others—is now offering classes, workshops, seminars, and conferences designed to meet community learning needs.

We are very pleased to have Euterpe join us in this initiative and are hopeful that Euterpe will bring the musical programming that it has been delivering so successfully over the years to new groups of learners in Simcoe County. Euterpe is in position to become the cornerstone of the Leacock Centre's music programming. We hope to bring Euterpe to Simcoe classrooms in the coming year, to offer summer programming at Lakehead's *CampU* next summer, and, after that, develop a residential summer music program here on the shores of Lake Couchiching and Lake Simcoe.

We have a great deal of work to do together as we develop this initiative, and look forward to working closely with you as we reach to community sponsors who share our mutual dream of "awakening young minds to the joy of music."

Sincerely yours,

A handwritten signature in black ink, appearing to read "Kim Fedderson".

Kim Fedderson
Dean and Vice-Provost, Orillia Campus

Appendix D: Three Qualitative Studies from <http://euterpe-canada.com/education/articles-studies/>

Awakening Young Minds to the Joy of Music



First Euterpe Qualitative Descriptive Research Study:

This study involved presenting 3 Euterpe performances to 283 students from JK to Grade 5, on June 10, 2013.

	Yes	No
Have you attended a concert like this before?	22 (7.7%)	261 (92.3%)
Would you like to hear a concert like this again?	282 (99.6%)	1 (0.4%)

**For children who responded YES to having attended a concert before: note that this includes any type of 'live' musical performance.*

	Happy	Medium	Sad
How much did you like this concert?	280 (98.9%)	3 (1.1%)	0
How did this concert make you feel?	279 (98.6%)	4 (1.4%)	0

	Yes	No
Did this concert make you want to play an instrument?	281 (99.3%)	2 (0.7%)

Which instrument would you like to play?

Piano - 130	Drums - 20	Bass - 5	All instruments - 2
Violin - 41	Cello - 14	Saxophone - 3	Recorder - 1
Trumpet - 53	Flute - 8	Percussion - 2	Singing - 1
Guitar - 23	Vibraphone - 7	Ukulele - 2	Sousaphone - 1

What words describe how you feel about this music?

Happy – 213	Very Happy – 144	Very Emotional – 11	Nourishing - 1
Graceful – 12	Stupendous - 1	Enjoyable – 15	Thoughtful – 1
Creative – 4	Artistic - 5	Inspired – 10	Soothing – 6
Nice! – 3	Wonderful - 16	Awesome - 64	Amazing – 46
Fabulous – 6	Very Satisfied - 1	Cool! – 47	Fresh – 1
Joyful - 54	Glad - 6	Interested – 6	Rejoiced – 3
Touched – 2	Fun - 27	Lively! – 1	Excited - 91
Fantastic - 19	Relaxing – 15	Great - 29	Funky – 4
Good – 8	Imaginative – 3	Feel like Dancing – 18	Inspired my Imagination - 18
*Sad-Consoling – 10	Hyper/Very Excited - 39		
Not corrupted by the world – the best! - 1		Very different music – I loved it! – 6	
Made me feel Energetic - 2		Lucky to hear this music – 6	
Makes me feel sunny/like sunshine – 3		Jazzy and happy – 3	
Made me feel special, belonging – like one with music - 1			

**The descriptive word "sad" is not necessarily a negative response, but rather a response that can also imply consoling, comforting and reflection. However we chose for the purposes of this study to group it as a negative response, even though arguably it lies in a grey area.*

=

Total descriptive words collected: **982**

Positive Responses: **972** (99%)

Negative Responses: **10** (1%)



Second Euterpe Qualitative Descriptive Research Study:
 Conducted on November 26, 2012

	Yes	No	Concert attended was Euterpe's concert in 2011
Have you attended a concert like this before?	24 – 12%	176 – 88%	52 (61% of positive responses)
Would you like to hear a concert like this again?	190 – 95%	10 – 5%	

	Happy	Medium	Sad
How much did you like this concert?	190 – 95%	9 – 4.5%	1 – 0.5%
How did this concert make you feel?	190 – 95%	9 – 4.5%	1 – 0.5%

	Yes	No
Did this concert make you want to play an instrument?	195 – 97.5%	5 – 2.5%

Which instrument would you like to play?

Piano – 68 Drums – 35 Bass – 5 Violin – 32
 Cello – 11 Oboe – 1 Tuba – 1 Trumpet – 34
 Flute – 2 Percussion – 2 Voice – 1 Guitar – 7
 Vibraphone – 22

What words describe how you feel about this music?

Happy-134	Like Dancing-20	Good-20	Exciting-11
Sad-4	Fun-9	Great-14	Very Good-7
Inspired-8	Fantastic-4	So happy-4	Nice-4
Peaceful-4	Imagining-7	Sleepy-4	Really Happy-8
Smile-2	Feels Good-4	Cool-2	Spectacular-2
Wonderful-2	Awesome-3	Glad-2	Likes Music-1
Super-1	Excellent-1	Super Happy-1	Party-1
Calm-1	Like singing-1	Hip-1	Too Loud-1
Boring-1	Light -1	Free -1	Amazing-1
Like-1	Different-1	Extremely Happy-1	Enjoyable-1
Proud-1	So very happy-1	Magical-1	

"The descriptive word "sad" is not necessarily a negative response, but rather a response that can also imply consoling, comforting and reflection. However we chose for the purposes of this study to group it as a negative response, even though arguably it lies in a grey area.

Positive Responses: 91.1%



Third Euterpe Qualitative Descriptive Research Study:

This study involved presenting 3 Euterpe performances to 413 students from JK to Grade 7, on June 17, 2013.

	Yes	No
Have you attended a concert like this before?	18 (4%)	395 (95.6%)
Would you like to hear a concert like this again?	412 (99%)	1 (1%)

**For children who responded YES to having attended a concert before: note that this includes any type of 'live' musical performance.*

	Happy	Medium	Sad
How much did you like this concert?	410 (99.2%)	3 (0.07%)	0
How did this concert make you feel?	408 (98.7%)	5 (1.3%)	0

	Yes	No
Did this concert make you want to play an instrument?	411 (99.5%)	2 (0.5%)

Which instrument would you like to play?

Piano-189	Vibraphone-12	Tuba-3	Organ-1
Violin-69	Bass-10	Flute-2	Trumpet-54
Saxophone-6	Voice-1	Guitar-23	Clarinet-5
Viola-1	Cello-20	All Instruments-5	Harp-1
Drums-17	Recorder-3	Trombone-1	

What words describe how you feel about this music?

303-Happy	1-enthusiastic	4-magnificent	3-impressed
5-strong	9-emotional	1-Bubbly	125-Good
1-Free	47-Awesome	20-Sleepy-relaxing	75-Excited
23-Fun	1-Playful	5-Old Times	28-Relaxed
2-Juicy	37-Awesome	23-Illoved it!	46-So Happy!
29-Calm	43-Very Happy	135-Very Good	3-The Best
1-Extremely Good	1-Engaged	4-Wonderful	1-Artistic
8-Excellent	1-Juicy and Black	5-Interesting	1-Sunny
3-Sweet	29-Great	1-Jazzy and happy	5-Smooth
2-Perfect	19-Inspired	1-Juiced	6-Really Happy!
12-Fantastic	4-Super Fantastic!	3-Nice	16-Sad-reflective
19-peaceful	2-creative	1-Curious	16-Cool!
1-scared	14-Feels Good!	12-Really Relaxing!	1-Liked It!
4-Graceful	1-Entertaining	1-Unmoved	17-Joyous/joyful
1-jolly	1-Very Uplifting and pleasant to hear!	1-Appreciative	
1-Thoughtful	10-Makes me Smile	1-Enlightened and overjoyed with art	
8-Made me feel amazing and so happy		2-Really Glad and so happy to hear you!	
15-Inspired my Imagination		44-Really Really Good	
13-Beautiful, soothing			

**The descriptive word "sad" is not necessarily a negative response, but rather a response that can also imply consoling, comforting and reflection. However we chose for the purposes of this study to group it as a negative response, even though arguably it lies in a grey area.*

Total descriptive words collected: **1,343**

Positive Responses: **1,324** (98.6%)

Negative Responses: **19** (1.4%)

Appendix E: Examples of Recorded Repertoire

Repertoire for Ensemble Vivant recorded discs, many of which were recorded live (direct) to disc, as well as live concert videos is extensive. A few examples demonstrating the group’s genre-diverse repertoire, selected from various Ensemble Vivant recordings and live performances, are included in the following three groupings, and the music from these groupings is available on various Ensemble Vivant compact discs and videos. (To access recorded music by Catherine Wilson and Ensemble Vivant online, please visit www.ensemblevivant.com and select “Discography” on the Home Page. Please also visit the “Video” page on Ensemble Vivant’s site to see examples of live concert recordings.)

First Grouping:

(All performed by Ensemble Vivant except 4, which is C. Wilson, solo piano)

1.	<i>Fugue in g minor</i>	J. S. Bach
2.	<i>Largo from Concerto in f minor</i>	J. S. Bach
3.	<i>Waltz in A Flat Major, op. 69, No. 1</i>	F. Chopin
4.	<i>Oblivion</i>	A. Piazzolla
5.	<i>Ethiopia</i>	J. Lamb
6.	<i>Sheep May Safely Graze</i>	J. S. Bach
7.	<i>Trio in G. Andantino Con Molto Allegro</i>	C. Debussy
8.	<i>Trio in G. Scherzo Intermezzo</i>	C. Debussy
9.	<i>Trio in G. Andante Espressivo</i>	C. Debussy
10.	<i>Trio in G. Finale</i>	C. Debussy
11.	<i>Sackville Street Ballad</i>	C. Wilson
10.	<i>I Never Know When</i>	L. Anderson
11.	<i>Sandpaper Ballet</i>	L. Anderson
12.	<i>Rialto Ripples</i>	G. Gershwin
13.	<i>I’ll See You Again</i>	N. Coward

Second Grouping

(All performed by Ensemble Vivant, except 4, 5, and 7, which are C. Wilson, solo piano)

1.	<i>Mysterium</i>	J. Burke
2.	<i>Chaplin Medley</i>	C. Chaplin
3.	<i>Loro</i>	E. Gismonti
4.	<i>Berceuse, op. 57 in D Flat Major</i>	F. Chopin
5.	<i>Etude, Op. 10. No. 3 in E Major</i>	F. Chopin
6.	<i>Knollwood Place</i>	C. Wilson
7.	<i>Jazz Legato</i>	L. Anderson
8.	<i>Kensington Market (Old Toronto Klezmer Suite)</i>	S. I. Glick
9.	<i>All the Things You Are</i>	J. Kern
10.	<i>For Unto Us A Child is Born</i>	G. F. Handel
11.	<i>Ave Maria</i>	A. Piazzolla
12.	<i>Ragtime (from Divertissement)</i>	R. Wilkins
13.	<i>Romance</i>	C. Debussy
14.	<i>Arrival of the Queen of Sheba</i>	G. F. Handel
15.	<i>O Mio Babbino Caro</i>	G. Puccini
16.	<i>Gavotte et Finale</i>	C. Saint-Saens

Third Grouping

(All performed by Ensemble Vivant except 1, 4, and 13, which are C. Wilson, solo piano)

1.	<i>Piano Concerto in C (III)</i> (Catherine Wilson, piano soloist with Toronto Symphony Orchestra)	L. Anderson
2.	<i>Alone</i>	C. Wilson
3.	<i>Menuet</i>	I. Paderewski
4.	<i>Prelude No. 2</i>	G. Gershwin
5.	<i>Greensleeves</i>	Traditional
6.	<i>Dance of the Sugar Plum Fairy</i>	P. Tchaikovsky
7.	<i>Ciel d'Orage (Soirs d'Alsace)</i>	C. M. Widor
8.	<i>Presto, Third Movement, Trio in c minor</i>	M. Bruch
9.	<i>Conte d'Avril</i>	C.M. Widor
10.	<i>Fuga Y Misterio</i>	A. Piazzolla
11.	<i>Dansa Negra</i>	C. Guarnieri
12.	<i>Odeon</i>	E. Nazareth
13.	<i>Für Elise</i>	L. Van Beethoven
14.	<i>Ave Maria</i>	J.S. Bach/C. Gounod
15.	<i>Fugata</i>	A. Piazzolla

Appendix F: Euterpe School Show Study Guides for Teachers

PREP

1. Musical instruments
2. Forms, eg. fugue, lullaby, waltz, tango – this will include meter and movement and Egs. such as ABA
3. Mood

1. TEACHERS of all grades can introduce their classes to the instruments the kids will be hearing and seeing in the performance.

List the instruments and give examples of repertoire that features these instruments. Carnival of the Animals is an excellent reference for all the instruments except trumpet. EG. reference the SWAN(#13, cello) and the ELEPHANT (#5, bass) and KANGAROOS (#6, 2 pianos) and CHARACTERS WITH LONG EARS (#8, 2 violins) and XYLOPHONE (vibes) and PIANO (#12 FOSSILS) and EV 1st M of Debussy Trio; EV Saint-Saens Septet, which includes bass and trumpet, 4th M;

2. ROUND

Teachers can introduce the kids to a ROUND to prep them for polyphony (multi voiced form of music - 2 or more melodic voices) – eg. Three Blind Mice – teachers should get the kids to sing this by dividing the kids into 3 groups - Sybil will prepare musical example with notes and text and where each group must enter in the simplest most obvious fool-proof manner for teachers.

Waltz—All waltzes are in $\frac{3}{4}$ time and they have a melody with a rhythmic accompaniment - reference Blue Danube from provided CD/link and have kids move in time to this rhythm eg. stamp foot on down beat and clap on 2, 3 to get them physically involved with the meter; and waltzes are often in ABA form, which is where the first musical melody is played, usually twice, and this is the A section and a new musical melody/idea is played, and this is the B section, and then the A section returns. And Waltzes are often danced to. Waltzes are homophonic, which means they are not multi-voiced as in polyphonic – melody over top of a harmonic/chordal accompaniment

Ragtime—form ABACA for example
Reference The Entertainer, for eg.

Tango—La Cumparsita by Uruguayan composer Gerardo Rodriguez
The title translates as The Little Parade.

Lullaby—Brahms most famous Lullaby

3. MOOD—get the kids to say what mood/feeling comes to their minds when listening to each of the musical examples played for them - they can write their feelings and they can express their feelings with drawings.

POST

reviewing musical instruments and getting reactions from the kids as to what they liked/ which instrument(s) etc.

Reviewing musical forms discussed in prep and asking the kids to identify these forms from hearing the various musical egs. provided

Also reviewing the terms denoting these forms – waltz etc. and talking to the kids about the historical periods – eg. Baroque/Fugue; Debussy/Impressionistic;

Chopin, Brahms and Tchaikowsky/Romantic; World – tango;

Ragtime/American. Description of these forms eg. polyphonic, homophonic

WORLD MUSIC, eg. TANGO that includes piano, violin, cello – eg. Blue Tango; Milonga For Three to demonstrate percussion and depiction of familiar animal sounds – has the howling wolf, and The Waltzing Cat has the meowing cat. Teachers can introduce the kids to a ROUND to prep them for

polyphony (multi voiced form of music - 2 or more melodic voices) – eg. Three Blind Mice – teachers should get the kids to sing this by dividing the kids into 3 groups - Sybil will prepare musical example with notes and text and where each group must enter in the simplest most obvious fool-proof manner for teachers.

LULLABY – Brahms most famous Lullaby; Chopin’s Berceuse - all of this covers famous composers of the past from different countries....

Waltz - Eg. Waltz of the Flowers from Tchaikowski’s Nutcracker Ballet and the Blue Danube by Johann Strauss; reference Waltz Disney’s FANTASIA as a visual - the original version – we must provide a link to this;

From Fantasia, use BACH’s Tocatta and Fugue d minor as an eg. of FUGUE for the older grades; On our CD, we can include just the fugue from this. Also include EV playing Fuga y Misterio - Piazzolla

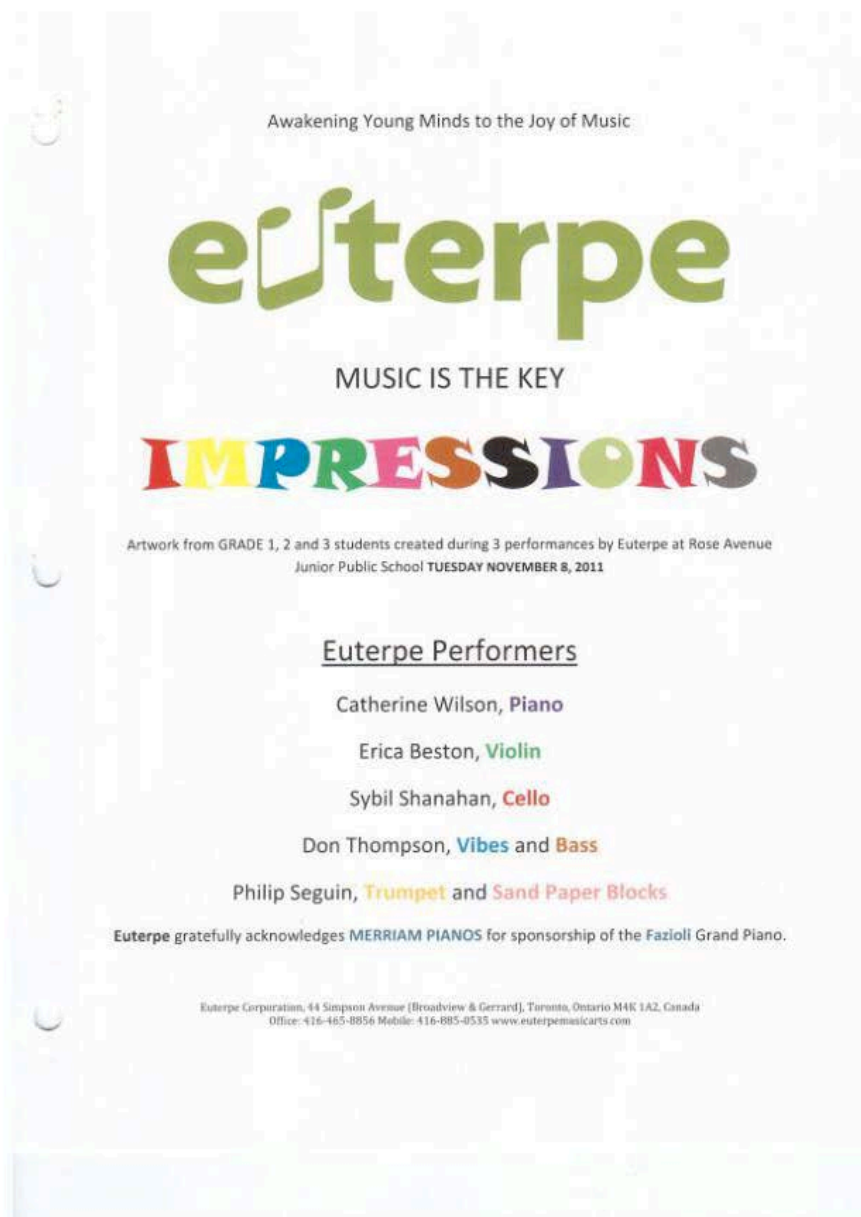
Our study kit will include a prepared CD of all the musical examples that the teachers can use for the prep where appropriate and for the post.

FOLLOW UP

Teachers can ask kids what instruments they liked best and why.

Other egs. of FUGUES

Appendix G: Booklet of Children's Artwork







Instruments I felt a little bit shy but I started to be brave and I felt happy and I also felt excited.

I love the music they play. I like to sing and dance.

I love music!

It was fun on the stage.





my favourite part was when
 the pinoist played and the
 sound was super good, I even
 like the part when all of
 them played and we danced



It was so fun
 I love singing and
 play ~~ing~~ instruments
 and dance
 I love music!
 so much





Vinisha

I love the Piano! I even love the Violin. The music is beautiful!

|||||||

After a beautiful song some people came up and played instruments. It was beautiful to hear all the instruments. Next we were going to dance! It was fun! I love music!



I never heard Munira this kind of music before. It is different which is cool. |||||

Very peaceful music. Also you can dance to it. Very happy music. Munira

I feel grat with the music



~~how many~~ how
much many did
the piano need.



Happy music Day

It makes me feel
happy. It also makes
me feel like I can

~~in the future~~
in the future

It makes me
feel loud and

Free

Picture on other
side

