

ALCHEMICAL HARMONAIIA: AN EXPLORATION OF
ALCHEMICAL MODES AND OTHER
SYMBOLS IN MUSIC

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ALCHEMICAL HARMONAI: AN EXPLORATION OF
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SYMBOLS IN MUSIC

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PREFACE

In beginning this work, my goal was to create a doorway that could be passed through by myself, or any other music scholar of the future, a doorway that would make the passage between spirituality, alchemy, and the *initiation* of humanity more readily available in the realm of musical study. There should be no moment of musical exploration that does not consider the human *feeling* that can be found in music. Any theoretical practice that does not benefit the reader in understanding music, or *self* in its relationship to the music, does not truly give itself a reason for having been written. Otto Laske was my introduction into psychomusicology, and the words with which he paved the open road for my understanding – and thus desire to seek more light – follow at the end of this preface. However, it should be noted that while Laske’s work fits both semiological and psychomusicological foundations, my work is intended to bridge the gaps between semiology, psychomusicology, music theory, and spirituality. In this way, fullness can be achieved and the human experience maintained at its highest quality.

“By saying that a theory of music is, at bottom, a theory of the working of musical memory, what have we gained? First, introducing this new paradigm, we leave behind the methodological naiveté of non-cognitive theories (**which treat music as an object ‘out there’ instead of a human experience ‘right here’**) and simultaneously retain the substance of the questions asked by such theories.”

- Otto Laske 1977, *Music Memory and Thought*, p. 6.

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I owe no greater debt than to the Father, who *conceived*, my mother, who *received*, and the world around for me to *perceive* its wonders and beauty. To my mentors, committee members, and colleagues at Texas State University–San Marcos, I owe a great debt of gratitude for their patience, encouragement, and support – even when I could not feed myself – for without them I would have neither began nor concluded this edifice. Most noteworthy, of course, to my advisor and friend, Nico Schüler, who opened his heart to the Great Work on my behalf, that I might the better serve humanity.

And to my brothers:

“The Glory of God is to conceal the Word.” – 14°, Perfect Elu

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1. INTRODUCTION

The history shared between spirituality and music can be argued to have been spawned from the same moment of creation. Since the first drum circle, music has played a part in the ceremonial and mystical part of human spirituality. The connection between music and the spiritual is seemingly impervious to time – from the first drum circles, through development of globally transmitted religions, and even into the secret societies of mysticism and initiation that permeate the globe, music continued. Spirituality is directly linked to mysticism and the search for *more light* in the universe. In this instance, *light* is the concept of wisdom, knowledge, understanding and metaphysical union with a higher existence. There has been, in all ages, a desire to understand the universe and its component parts (such as *music*). *Mystery Schools* and spiritual teachings developed in as much the same way that *music theory* has various methodologies. Each methodology is a set of teachings or practices that can lead to *understanding* reality – or music – in a different light. This being the desire of the mystic and also the music theorist, it is then natural to see the desire to understand the mystical in music.

The goal of this thesis is to identify and explore symbolic meanings in music that include hermetic symbols of initiation. This includes the philosophies of the ancient Greeks, teachings of modern philosophers, and the symbols and practices of modern mystics, magicians, and alchemists.

The second chapter shall attempt to identify and link the connections between spirituality, mysticism and music. Following this, the second section sets out to identify alchemy as a spiritual path and the meaning behind the practices and usage of the word *initiation* with the goal to validate the meanings of the symbols later identified in the third chapter as useful to the mystic, magician and alchemist. The third chapter shall define numerological symbols and alchemical correspondence found in musical modes. These modes are then explored intrinsically and compared to the Qabbalistic teachings of the Hebrew mystics, and finally the modes and their correspondence are compared to Jungian psychological archetypes in order to notice any similarity in the meanings and purpose of the symbols within initiation. The fourth chapter includes symbolic analyses of three pieces from various periods of musical composition by Claude Debussy, Johann Sebastian Bach and Wolfgang Amadeus Mozart. The concluding chapter shall summarize the findings and include an analysis of music expressly written for initiation into the fraternity of Freemasonry used in the Grand Lodge of Illinois (1915). By the end of this thesis, I hope to give the reader the ability to find an understanding of music's interconnectedness with the spiritual world, alchemy, and the ability to find such symbols as will be revealed in the chapters to come.

2. SPIRITUALITY, MYSTICISM AND MUSIC

Spirituality: the quality or state of being *spiritual*

Spiritual:

1: of, relating to, consisting of, or affecting the spirit : incorporeal <*spiritual* needs>

2 *a* : of or relating to sacred matters <*spiritual* songs>

b : ecclesiastical rather than lay or temporal <*spiritual* authority> <lords *spiritual*>

3: concerned with religious values

4: related or joined in spirit <our *spiritual* home> <his *spiritual* heir>

-Merriam-Webster, 2012

The first chapter of this thesis sets out with the definition of spirituality in the context and meaning intended in this work. It is to be understood as those practices with the inherent property, knowingly or otherwise, to bring the practitioner closer to a state of self-actualization, unity with a higher existence, and/or a unity with Deity. With this acknowledgement, the goal of this chapter is to inculcate the understanding and value of the connection of Hermetic Alchemy as a Spiritual path, to Mysticism and thus Music.

2.1. Inseparable Nature of Spirituality and Music

Historically, music and the spiritual world have been united since recorded conceptualization, from the most primitive ceremonial music of drum circles and chants, to the fullness of a mass (Pautz 1957, 7-9). The union of music and spirituality can be approached via the psychological, philosophical and historical. A simple glimpse into the annals of the long list of sacred music saved since the 12th century will reveal the historical approach and shall not be explored in this work. The philosophical and psychological approaches shall be examined here in order to show that Music and Spirituality are truly inseparable – or as the term ‘Inseparable Nature’ indicates: incapable of separation. This journey begins with an overview of philosophical thought concerning music, beginning in Greece and ending with deeply philosophical concepts brought to light by Victor Zuckerkandl; the journey continues with an extrapolation of psychological value based upon contemporary experimentation and evaluation of musical phenomena.

Joscelyn Godwin’s encyclopedic work *Harmony of the Spheres* (1993) explores not only the historical configurations of music in such a manner as to recognize the performance techniques and cultural usages, but also of the importance of the usage of music in spiritual ceremony and art. By this, one might consider the two to be separate; however the usage of stage-art to inculcate morals and allegorical lessons by the ancient Greeks mirrors the usage of the Olympian mythology to teach the same.

Beginning with Plato’s *Timaeus*, Godwin sets out to show the Greek philosophy of the creation of the soul, which mirrors that of the mathematical proportions of the

octave and its seven tones within. Simultaneously, these parts correspond to the movement of the planets in their journey around a fixed point. Abiding that “the body of the universe was generated visible; but soul is invisible, participating of a rational energy and harmony” might also be compared to the composition and participation of music (Godwin 1993, 5-6). This might also be taken that instruments – even that of the human voice – are seen, while the important matter of what they *do* is unseen. Further owing that the internal reflects the external – something that would eventually appear in many alchemical treatises according to Hall (1928, CXVII-CXXI and CXLIX-CLIII) – Pliny the Elder is cited as having declared “whether the sound of such a vast mass whirling in its ceaseless rotation is so loud as to exceed the capacity of the ear, I cannot say – no more, by Hercules, than whether there is at the same time a tinkling of the stars as they turn around with it, revolving in their orbits – nor whether it makes sweet music of incredible beauty. To us, who live within it, the world glides silently day and night” (Godwin 1993, 8). Though Pliny refers to the distance between planets and tones to be a “playful subtlety”, he does refer to it as “a universal harmony”, alluding to the fullness in the harmony of how all things function in the universe, in comparison to the harmony of music (Godwin 1993, 7-8).

These philosophies of music as a proportionate comparison of the universe are again compared to the *internal* harmony of the soul by Ptolemy. Even that harmonic power in music reveals the relationships of the movement and energies of the human soul. That, further, the powers of the soul – Thought, Feeling and Life – are compared to the original consonant intervals: octave, fifth and fourth (Godwin 1993, 23-25). “One can therefore compare the octave to the power of thought – for in both there prevails

simplicity, equality and equivalence – , the fifth, to the power of feeling, and the fourth to the power of life” (ibid., 25). Ptolemy compares all aspects of the musical world to the various parts of the soul and the various stages of life. This inseparable nature of music from the soul and the meanings and exploratory tools that humans make use of in life further strengthens the bond that the spiritual world and the world of music are completely inseparable – one and the same – regardless of intent or practice (ibid., 25-39).

The Pythagorean philosophical teachings of music – and thusly spiritual philosophy – continue throughout the classical Greek age and through all ages of music into the Romantic, according to Godwin. Of important note is that Godwin includes not only Greek, but Muslim, Christian and Jewish traditions that rely upon the philosophical teachings of the Pythagoreans – or if not relying upon them, where they converge and agree – such as the *Brethren of Purity* (Ikhwan Al-Safa’), Al-Hasan Al-Katib, and Isaac Ben Abraham Ibn Latif. Before departing from this section’s exploration of the inseparable nature of music and spirituality, this work will return to the Pythagorean tradition in its exploration of Arthur Schopenhauer; however, at this juncture in this work, it becomes necessary to depart from the world of the repetitive Greek thought of music and the spiritual world, which are clearly inseparable, and venture into the philosophical and practical thoughts of seventeenth-century England – as explored by Penelope Gouk (1999).

In this time period of philosophical and theoretical growth, music took upon a practical and speculative division. It was considered practical in the meaning of performance and technique; and speculative in its theory, philosophy and university

education derived understanding. Music, while being understood as an art (explained by Gouk to mean a *technical skill*), and a science (a *philosophical teaching*), mirrored the methodology at the time and understanding of magic. Magic was also thought of as the secret knowledge of the natural qualities and hidden operations of all things in the world – much the same definition as that understanding sought by the mystic of the spiritual world. Of course, there existed another type of magic that was considered to be of a “devilish” nature, known as “witch craft” (Gouk 1999, 68-70).

This time period also saw the classification of knowledge in various ways, such as those by Francis Bacon, where music is not only seen as part of the tree of *voluptuary arts*, but human philosophy in consideration of the body, and the tree of ‘man’ under the school of Theology. It is important to note that this realm of knowledge – musical knowledge – was not listed under the heading of Poetry, a component of Imagination, but rather under the component of Reason. There are only two schools under Reason: Theology and Philosophy. Once again, the concept that the understanding of the spiritual world might not be separable from the musical world is prevalent. Robert Fludd, however, classified music as both an “organizing principle of the universe and a manifestation of cosmic harmony” (Gouk 1999, 95), which would make it above and beyond the conceptualization of Reason alone, and into the realm of Deity (Gouk 1999, 90-101 and 145-148).

In the timeline of manifested understanding of music and spirituality as one, the journey comes to Arthur Schopenhauer, of the nineteenth century. Schopenhauer declared music to be a copy of will, rather than an idea. Music was not simply the copy of an individual’s will, but of the Divine Will. Godwin translates:

I gave my mind entirely up to the impression of music in all its forms, and then returned to reflection and the system of thought expressed in the present work, and thus I arrived at an explanation of the inner nature of music and the nature of its imitative relation to the world – which from analogy had necessarily to be presupposed – an explanation which is quite sufficient for myself, and satisfactory to my investigation, and which will doubtless be equally evident to any one who has followed me thus far and has agreed with my view of the world. Yet I recognize the fact that it is essentially impossible to prove this explanation, for it assumes and establishes a relation of music, as idea, to that which from its nature can never be idea, and music will have to be regarded as a copy of an original which can never itself be presented as an idea... Music is thus by no means like the other arts, the copy of the Ideas, but the *copy of the will itself*, whose objectivity the Ideas are. This is why the effect of music is so much more powerful and penetrating than that of the other arts, for they speak only of shadows, but it speaks of the thing itself. (Schopenhauer, quoted in Godwin 1993, 340-341, Godwin's emphasis.)

By this, Schopenhauer admits that music is not only a manifestation of Will, but it is *The Will* – the first mover, the creator, the sustaining spirit, and the ineffable relationship between all three.

Moving forward into the twentieth century philosophy of Victor Zuckerkandl in his works *Sound and Symbol: Music and the External World* (1956), *Man the Musician: Sound and Symbol Vol. 2* (1959), and *The Sense of Music* (1973), the conceptualizations that music and the ineffable are inseparable and above mundane noise of the material world are formulated. First in Zuckerkandl's explanation of equal temperament found in *The Sense of Music*, he identifies two problems and categorizes them for the “philosopher-mathematician” and the “musician.” These problems include the defeat of the philosopher in the “perfect ratio” of the octave, and the difficulty in tuning as an instrumentalist when changing keys to create a pure consonance. “Equal temperament is a very crude solution of the problem ... it takes the octave ... and divides it into twelve proportionally equal parts ... The beautiful whole number ratios, however, the holy

numbers, are gone. In their stead we get a series of seven digit decimals.” (Zuckermandl 1959, 75-77). The rest of the work functions to show the disparity between the philosopher-mathematician seeking to define feelings and ratios, and the musician seeking to create good music via theory and practice. It is in the depth of Zuckermandl’s works *Sound and Symbol* that he delves into the deep philosophical meanings (or lack thereof) within music.

The most potent statement in *Sound and Symbol* for the ineffability of music, and inseparable nature from spirituality, is quoted in Zane Pautz’s dissertation *Types of Musical Mysticism* (1957), as an example of the nature of music in the spiritual world, and here again the same passage is brought to light to reveal the important philosophical truth that Zuckermandl shares at the onset of his work:

Tone is the only sensation not that of a thing. In the case of color, hardness, odor, we ask, *What* is it that possesses the color, the hardness, the odor? Even in the case of noise we ask, *What* is making it? It is not so with tones. Language makes a very subtle distinction: we say, The leaf is green, the wall is smooth, the honey tastes sweet; but we do not say, The string is g, or the flute sounds d-ish.

Sensations are our answer to the world as given. Seeing, touching, smelling, tasting, we respond to its physicality, its materiality. To what datum of the world do we respond in hearing? Is hearing only a sort of seeing around the corner, seeing in the dark? If noises were all that we heard, hearing could be so interpreted; could be regarded as an auxiliary sense, added to seeing and touching. But there are tones, and there are tones because there is music, not the other way around. Only in tone is the true nature of sound revealed; in the hearing of tones the sense of hearing fulfills its destiny and discovers the side of the world that is its counterpart. Which side is it, since it is *not* the material-factual side? Whatever the answer may be, we know now that the question itself is reasonable; that there is something real to be inquired into in this direction. Because music exists, the tangible and visible cannot be the whole of the given world. The intangible and invisible is itself a part of this world, something we encounter, something to which we respond. (Zuckermandl 1956, 70-71.)

As indicated by the simple statement “Because music exists, the tangible and visible cannot be the whole of the given world. The intangible and invisible is itself a part of this world” because music exists. This, coupled with the previous understandings of the universe and the spiritual world previously explored in this chapter, indicates with the utmost certainty that music is inseparable from the spiritual. Later, Zuckerkandl declares that “As a tone in itself is not yet melody, so a chord in itself is not yet harmony, musical harmony. Music is motion – tonal motion as melody, chordal motion as harmony,” indicating the importance of this invisible, and ineffable, force in music can move and be perceived differently in *the whole* versus the *parts* (ibid., 109).

Finally, in respect to Zuckerkandl’s explanation of music, the third work explores music and magic – which has already been discussed as a link in the spiritual world. “That music is closely related to magic is obvious at first glance. No primitive magic ritual can do without music, and even in modern civilized societies scattered islets of ritual have survived. The church no less than the circus, the ceremonial of public as well as of private life, cannot do without music. Conversely, certain principles of magic ritual – repetition, structures based on the numbers three, four, and seven, to name only the most important – play a crucial role, not just in primitive music but in the culminating stages of art music. To how surprising an extent even today musicians practice magic in the literal (not the metaphorical) sense...” (Zuckerkandl 1973, 71-72).

Zuckerkandl’s explanation continues to reveal the nature of the soul, the spirit trapped within a body in the physical world that can be freed by magic and music. He declares that “what is so splendidly unfolded here is nothing other than an order of tonal space and tonal time, the same order already contained in germ in the musical tone as

such. If with the creation of the word man emerges as a principle of order, if the word marks the rise of a spiritual order above nature, then tones and words must have a common origin. Where could a spiritual order, where man could conceiving of himself as a spiritual power distinct from nature be more purely revealed than in tone structures?... more awake than in tonal movement?" (ibid., 74). It is in the understanding that the *tone* of the soul, while imprisoned in the material world and unaware, is a biological phenomena such as a communication sound that might hint at someone or something. The *tone* of the consciousness that has been called from the dream – from the fallacy of reality – is the “musical tone proper.” This explanation derives the understanding of a hierarchy of spiritual existence in sounds. As defined previously by Zane Pautz, the goal of the mystic being to *unite* with the ineffable (Pautz 1957, 1), Zuckerkandl finalizes the argument of music as a spiritual existence with the following:

Music achieves the appropriation of the magical by the spiritual: the essential core of magical existence is integrated into a spiritual order. To infer from the affinity between music and magic that music originated in the world of magic is fallacious. Music did not originate in magic; it originated precisely because of the loss of the world of magic, following the law of all living development that each successive stage must incorporate the modes of existence of the preceding one. Speech and music are not antagonists representing two developmental stages, one of which superseded the other. Our discussion of the word-tone relationship in song has shown that the two work together, not one against the other; that they are not at cross-purposes, but enhance each other. Words divide, tones unite. The unity of existence that the word constantly breaks up, dividing thing from thing, subject from object, is constantly restored in the tone. Music prevents the world from being entirely transformed into language, from becoming nothing but object, and prevents man from becoming nothing but subject. (Zuckerkandl 1973, 75-76.)

In final assessment of the inseparable nature of music from the spiritual, this work now approaches the philosophy of Vladimir Jankélévitch, in the appropriately titled work *Music and the Ineffable* (2003, originally published in 1961). Music, through its ineffable nature, acts as an enchanting and powerful tool of initiation and actualization. It is as the mystery of God, “of love, both Eros and Caritas, the poetic mystery par excellence” (Jankélévitch 2003, 71-72). It is in this meaning that this thesis attempts to explore and expound upon the use of symbols. That there are meanings hidden in the world of the ineffable music around us that can reveal a part of the mystery of God – meanings that can reveal a part of the mystery of Self, with stunning regularity. While citing the entire second chapter of *Music and Ineffable*, or in particular the portion entitled “The ineffable and the untellable. The meaning of meaning” would be useful in expressing the fullness of music in the spiritual sense, it would simply suffice to say that one in search for more meaning of the connection between the spiritual and the musical would do well to read it completely.

In this section of the work, a link between the philosophical and the musical has been made to show that hidden within is a connection to spirituality – thusly to mysticism and magic. Before going further into a specific school of mysticism and magic (Alchemy), it would be appropriate to approach the author’s meaning of music in this context, beyond what other writers and philosophers have expressed.

In any given moment of musical creation and performance there are three acting forces that, while independent from one another, are interdependent in the creation and actualization of the concepts and perceptions of music itself. These are principally performer, audience and music. Within each of these independent forces is

interdependency, as stated, allowing the definitions and interactions of each to cross boundaries to define one another within each other.

At any given moment during a performance, a performer is also an audience member, receiving information of his or her performance and adjusting the performance therein. At any given moment, an audience member is simultaneously a performer – offering feedback to the original performer through body language and even thought complexes of encouragement and emotional connection. Even in silence, as an example with John Cage’s 4:33, an audience is a performing force.

Thus there is interdependency of the performer and the audience member through perception and action. It reasons to now examine the interdependency of music between the other two. It stands to reason that if the performer and audience member can be one with the other, through the ancient technique of equilibrium one should be capable of determining the only other “existence” that music could qualify as “one in the same” with the audience and performer. In this definition one must remove adjective concepts such as “humanity” or “musicians,” because music, while dependent upon humanity for meaning, is not a human, in and of itself, nor is it a musician. Therefore, one must define it through object recognition. There are three principal entities or existences that are here recognized for joining together two beings and existing independently. These three exist independently of one another yet are also part of all moments – and music is a moment. They are Space, Time, and the concept of “Deity.”

However, to become completely philosophical upon the subject allows this work to approach Time as a fallacy, determined by the pseudo-creation of humanity to measure

moment to moment. Thus, time does not exist in and of itself, but as a product of perception. Space, according to the mystic, is no more real than the physical world. Music having been stated as existing entirely in the Ultimate Reality, or the invisible world, it stands to reason that space – a function of the material world only, as the invisible world has no time nor space – will not do for defining music, though can be used to describe all musical properties. In the same way, one can perceive infrared energy via heat transmission, and vice versa, though altogether to the human eye infrared is invisible and indistinct.

Thus the philosopher of music might be left with the idea, dependent upon the perceiver of the moment, that God exists. Therefore, Music is a portion, or emanation, of the ineffable – the unexplainable or unspeakable – there to exist in but a moment with humanity before receding into the invisible world without.

One may therefore determine that in the triangle of equilibrium composed by the three – performer, audience and music – that there is one sound answer to the question of what music is in this context: *Shekinah*, or the sacred feminine of the Jewish Mysteries, and the sustaining aspect of deity, uniting all into its existence as one. *Shekinah* being a statement or emanation of deity, thus music is God. Once again is found the trinity – Father, Son and Holy Spirit (Creator, Created and Universality of Existence) – in music. Simultaneously the Performer, Audience and Music are the Creator, the Created and the Universality of Existence. Thus, *music* must be *ineffable*.

In these determinations it is now appropriate to approach a singular form of mysticism that can be corresponded with music as a practice to reach the Ultimate Reality, or spiritual awakening: Alchemy.

2.2. Alchemy as a Spiritual Path

The following section of this chapter attempts to remove some of the common confusion surrounding Alchemy, Hermetic Alchemy, or Hermeticism. Many of the subjects covered in this section will be examples of modern practices and ancient teachings¹. The journey into Alchemy as a spiritual and laboratory practice can be a lonely path, or a path with many cooperative minds.

At the most basic level of understanding, Hermetic Alchemy is “the process of increasing and improving that which already exists...” and acknowledges “God is the ‘within’ and the ‘without’ of all things” (Hall 1928, CLIV). The teachings of Alchemy include such phrases like ‘as above, so below’ and certain numerological symbolisms such as the Triune of the Father Son and Mother in the Four Worlds, or the correspondence of the *Father, Son and Holy Spirit* with the Father, Son and Mother (ibid., CLV).

Not only does alchemy concern itself with the *macrocosmic* spiritual explorations, but also of the *microcosmic*. Alchemy explores the world of the elements, the planets, of chemical interaction, multiplication and division in the context of spiritual symbolism. Also of the universal teachings that spread through all religions – as Hall explains “as surely as Jesus died upon the cross, Hiram (*CHiram*) at the west gate of the Temple, Orpheus on the banks of the River Hebros, Christina on the banks of the Ganges, and Osiris in the coffin prepared by Typhon, so in alchemy, unless the elements first die, the

¹ As a practitioner of Alchemy, many of the topics and subjects discussed will be from my personal experience in the craft. The process of exploring Alchemy usually begins by stumbling upon it or someone who practices it, then being referred to an encyclopedic volume – in my case this was *Secret Teachings of All Ages* (Hall 1928). There is no “one way” to practice alchemy, but many ways. The most important is simply by **doing**.

Great Work cannot be achieved.” This of course is a reference to *solve et coagula*, which means to ‘break down’ and ‘rebuild.’ (Hall 1928, CLV-CLVI.)

Having defined alchemy in such a broad sense now allows the acknowledgement of the process of following a *spiritual path* that is *mystical*. Taken from Merriam-Webster, mysticism is “the belief that direct knowledge of God, spiritual truth, or ultimate reality can be attained through subjective experience” (Merriam-Webster 2012). In this definition alone can be seen the parallel of alchemy and the spiritual. Alchemy, in practice, attempts to reveal one person’s subjective experience through an objective – pseudo-scientific – practice that many others might follow. Another spiritual path that mirrors this is known as *Qabbalah*². Both attempt to take the subjective experience of *Ultimate Reality* or *God*, and measure a method to reach understanding (enlightenment) via specific, calculated actions.

The aforementioned allegory of Jesus, CHiram and Orpheus represents the death of a man in order to be resurrected again, and finally ascended. Jesus died upon the cross and was resurrected three days afterwards. CHiram Abif, a figure of masonic legend, was murdered and resurrected.³ Orpheus ‘fell into the underworld’ in order to ‘rise up’ with his true love. All of these examples identify various stages of the alchemical process – some identify seven or twelve such stages. These are not to be confused with the *phases* of transmutation. The twelve stages are:

² Qabbalah, Kabbalah and Cabala are all the same thing. Different practices have historically changed the spelling in order to separate themselves into individual practices. The spelling “Qabbalah” is used here because it is how I learned to spell it in the tradition that I practice.

³ This is a reference to the Master Mason degree, in which this is acted out (because of Masonic obligations, I cannot reveal more than this, but the reader is encouraged to perform a simple internet search to discover more).

1. Calcination	4. Dissolution	7. Sublimation	10. Fermentation
2. Congelation	5. Digestion	8. Separation	11. Multiplication
3. Fixation	6. Distillation	9. Incineration	12. Projection

While the four phases are:

Nigredo	Albedo	Citrinitas	Rubedo
---------	--------	------------	--------

Each of these phases represents a portion of the alchemical wedding, or the *Great Work* by some teachings. The twelve stages are sometimes matched with the four phases – in this case, this thesis matches the stages with the phases as visually shown above (Hall 1928, CLIV-CLVI). In the case of the given example of the allegories previously mentioned, the figures die in the *nigredo* phase (black, like a burning object), are purified in the *albedo* phase (white, like that of the moon), are further manifested/ascended in the *citrinitas* phase (gold, like royalty or the light of the Sun), and finally revealed in fullness and the completion of the work in the *rubedo* phase (red, like the *rose croix*). (Hedesan 2009.) This also points to the symbolic death, purification, resurrection/ascension and return of nearly all Hero Archetypes in the stages of development in Jungian Psychology (discussed in the next section in relationship to initiation and in chapter 3 in some depth).

Spiritual Alchemy is like that of laboratory alchemy in the same way that *speculative freemasonry* is like that of *operative freemasonry*. The difference between the two might only be in that one process is performed physically, and the other process is performed mentally or purely in the spiritual realm. This thesis manifests the meaning of

music as a spiritual method in the same way – operative musicianship opposed to speculative musicianship.

Piers A. Vaughan translates *Spiritual Alchemy* (2005) to read: “Expressed originally by devotees from when it issued from the loins of its sister *Mysticism*, *Alchemy* demands of the Initiate that he places himself in the School of Nature, before finally confiding in him the keys of Adepthood” (Vaughan 2005, 8). This might at first seem unrelated to the topic at hand, but upon further inspection one finds two important notions: *Initiation* and *Alchemy as related to Mysticism*.

The first section of this chapter already identified mysticism as a process of enlightenment and spiritual manifestation. The declaration that the two are sister sciences – sister practices – allows the boundary between music and alchemy to now also become blurred. In this way, a distinction between *magic*, *mysticism* and *alchemy* might be made clearer so that music might hold its proper place in the understanding of initiation.

Already this work has found a link between mysticism and magic to indicate that both seek a spiritual union with the greater reality, Deity, or a manifestation of self in a manner of understanding of either of those two concepts. However, at this juncture, the understanding of the three – magic, mysticism and alchemy – might not quite be separated. The following explanation is given⁴:

If taking the philosophical and theological concept of the constitution of a human being to be at least threefold, being that of a body, mind and a soul, then two apparent components of this being become known: the *self* and the *soul*. The *self* might, in this

⁴ This explanation comes from a personal allegory that the author uses to teach the difference between magic, mysticism and alchemy in private lessons of the same.

case, be identified as the part that of the being that identifies as “*I Am.*” Magic, to the understanding of this thesis, will be acknowledged as those practices that enhance the *self*, empower it, and give it strength to be an active participant in reality. Magical rituals often involve enslaving a demon or elemental (which might be understood in psychological terms as a manifestation of a personal dilemma or ‘bump’ in the unconscious mind) to perform some useful task for the magician. Aleister Crowley is an example of a magician. The polar opposite of this is expressed by the mystic – absolute *selflessness*. The *self* is given up so that the mystic might become part of the greater reality without control, allowing the will of the mystic to be that of God, or the Universe. Jeanne d’Arc is an example of a mystic.

Imagine that the universe is an ocean. Each mind is a vessel upon that ocean. Society (rules and expectations) and the constructs of civilization create an island that many vessels land upon to find safety. The ocean continues to lap at the shore. Sometimes, the ocean breaks waves hard enough to cause massive changes in society. The Magician, seeking to empower *self*, creates for himself a vessel of immense power and control that he might avoid the great waves of the ocean or master them altogether. The Mystic, on the other hand, seeks to *release self* and simply becomes part of the ocean. Both of these paths have their benefits and faults. For example, the Magician might become so estranged that his vessel sails away from society completely – much like Aleister Crowley. The Mystic might become an implement of the ocean and find herself thrashed against the rocks of society’s island – just like Jeanne d’Arc. In Qabalah, these are known as the Pillar of Severity and the Pillar of Mercy, respectively.

In Freemasonry, they are the Pillars of Strength and Wisdom. In Gnostic Christianity, they are the Father and the Holy Spirit.

There is a middle path. Alchemy is the Middle Path. While the Magician seeks only to gain *self*, and the Mystic seeks to lose *self*, the Alchemist seeks to do both. In the phases of Alchemy, the Mystic would be considered to stop in the *citrinitas* phase – ascension, or joining with the fullness. The Magician would stop at *albedo*, in order to purify and empower. However, the Alchemist continues to *rubedo*, where after ascending or enlightening, the Alchemist returns to spread the light and continue the *Great Work*. The Middle Pillar is often referred to as the Pillar of Equilibrium; the Pillar of Beauty in Freemasonry and Qabalah; or the Path of the Christ in Gnostic Christianity.

Relating Music, in the ancient world, to Alchemy is as simple as looking to the names of the tonic relationships: *dominant* and *subdominant*; *mediant* and *submediant*. These indicate an *above* and *below*. One of the most professed phrases of alchemy is ‘*As Above, So Below*’. This is one of the tenets of equilibrium. In tertian four-part music, the root, third and fifth are often kept in equilibrium by way of the neutral root. Supplying too much third (mercy) and too much fifth (severity) can create less than perfect harmonies.

Having identified the link between spirituality and music, and now alchemy, spirituality and music as convergent methods of enlightenment, this work will now approach the process of *initiation* and the components of initiation relating to music.

2.3. Initiation and its Components

Finding and discovering symbols in music must have a meaningful use. Otherwise it is simply equivalent to pointing out every triangle used on road signs and company logos – interesting, but not particularly useful. In chapter three, I will identify certain Jungian Archetypes that correspond with the modes as symbols to be found in music for the purpose of initiation. This section is intended to create an understanding and awareness of initiation beyond the meaning of a ceremony and into the very real process of self-actualization.

Throughout history, various orders, religious sects and organizations have made use of ceremonies to confer a ‘degree of initiation’ upon a member. Such rites might be considered a form of spiritual-evolution in which the participant is moved from one state of understanding and awareness to another that they might not have had access to in their normal lifestyle. By state of awareness and understanding, I mean the conceptualization of world Truth and world view that the subject might have at any given time. As discussed later in chapter three, the archetypes of Carl Jung’s psychoanalytical method includes various stages of development based upon such awareness and understanding.

As an example, the degrees of Freemasonry, from the perspective of a Freemason⁵, are now explained. Each degree involves a ceremonial *induction*, or bringing into an altered state of receptiveness. *Induction* is also used to relate a mental state of a fully conscious participant and a hypnotized participant. In Masonic Degrees, there is no practiced hypnotism, but there are certain activities that might create an altered state of

⁵ Every Mason who participates in the degrees of freemasonry has a different experience, even though the material is nearly exactly the same for each candidate. The understanding of Initiation involves research and personal observation in this section of the thesis.

‘distracted’ mind. Such activities include walking around the lodge room barefooted while listening to scripture, or kneeling in awkward (often physically limiting and uncomfortable) positions to distract the mind from its own thoughts and put the participant *in the moment*. The ceremonies of many organizations mirror these and they seem to have been found useful to the ancients as well (Hall 1928, XXI-XXXII).

After the candidate is inducted and brought into an altered state of awareness, certain symbols and messages are presented to the candidate in order to impress upon them some natural Truth of the universe – for example, “the Square of Virtue” or the “Common Gavel” which a mason is taught to use as a symbol of “divesting our minds and consciences of all the vices and superfluities of life” (Grand Lodge of Texas 1982, 19). Such impressionable symbols are then made a part of the candidate’s present awareness level. However, hidden in the symbols and obvious workings of a masonic degree are the alchemical teachings mentioned in the previous section. Such teachings include the alchemical wedding of the Sun and Moon⁶ through the “Worshipful Master” – possibly a reference to the Mercurial Waters of Alchemy that cause all change (Hall 1928, CLXXIII-CLXXVI). These symbols impress themselves upon the Mason and indirectly indicate to him that he should create equilibrium in active and passive methods in his lifestyle. This teaching is found in many other ancient traditions, including the *Tao te Ching*, but it is not explicitly explained during the ceremonial degree. It still, in as much as the *vesica piscis* is a symbol of the Sacred Feminine hidden in the Square and Compasses (see figure 9 in chapter 4.2), leaves a lasting imprint upon the mason.

⁶ This is made reference in the “Lesser Lights” of the lodge.

Initiation, therefore, might be thought of as a building block of the mind to orient it towards the goal of perfection. Masonic symbolism deals with initiation directly via the symbols of the rough and perfect ashlar: “By the Rough Ashlar we are reminded of our rude and imperfect state by nature; by the Perfect Ashlar, of that state of perfection at which we hope to arrive by a virtuous education, our own endeavors, and the blessing of God ...” (Grand Lodge of Texas 1982, 29). Why initiation is necessary is speculated by many, and an example speculation is here provided⁷:

In the natural, biological world, men and women have biological initiations – physiological changes that cause them to understand *self* and the place of *self* in the world differently. These are not social initiations, but biological. Women are endowed with five natural initiations: Birth, Maturation (the first menstrual cycle), Childbirth, Menopause (occasionally timed perfectly with separation from the child), and Death. Men have two: Birth and Death. In this way, Freemasonry as well as other societies as the Rosicrucians, makes use of symbols and degrees in order to facilitate the evolution of man to “catch up” to the woman and have five initiations. Social initiations have been created all over humankind – from graduation ceremonies to the first driving permit of a student. However, masonic degrees inculcate the three intermediate stages of initiation in the primary degrees of the Entered Apprentice (one who is beginning the possibility of work), the Fellowcraft (one who is working and producing work), and the Master (one who is stepping away to let others do the work as they direct). The first masonic degree begins with the phrase “In the beginning...” just before a mason is brought to light –

⁷ This is the author’s take on initiation that is shared to new candidates in freemasonry when instructed in the work of the Lodge.

symbolic of the first initiation of man: birth. The final masonic degree deals heavily with death – symbolic of the final initiation of man: death.

This understanding that initiation is not only useful, but important, in the personal evolution and growth of an adult human being, now brings the present work into the view of utility. By identifying the usefulness of modes and other musical symbols in their ability to communicate *implicit* meanings of various alchemical processes and teachings, musicians might the better enhance music toward an initiatory tool – not only in masonic degree work or other such organizations, but in every composition and moment that listeners experience music. The purpose of this thesis is not to identify what happens when a listener experiences transformative music such as the symbols to be explored later, but rather that such symbols exist and *can* have a lasting effect upon the listener.

3. SYMBOLIC CORRESPONDENCE IN MUSIC

This chapter sets out to identify the correspondences and connections between spirituality (primarily in Alchemy) and music. This process begins with acknowledging the numerological representations in music, the already present relationships between planet and scale (because the planets are inherently integrated into Hermetic Alchemy and some Greek music theory – namely Pythagorean), and finally by approaching the same symbols in respect to Jungian Psychology. With these approaches, the path to a clear understanding of symbolic correspondence in music is made possible – even when unrelated to initiation.

3.1. Numerological Symbols in Music

Music is sound. The sounds might be taken as numerically related to one another. This is seen in various theoretical practices, such as those used to find tonal relationships, set-theory and transformational theory. Simple numerological expressions can be seen in the exploration of the basic fundamentals of Pythagorean numerology. It should be noted, however, that many have attempted to unravel the mysteries of Pythagorean numerology to no reward. According to Hall, “it is unwise to make definite statements founded on the indefinite and fragmentary information available concerning the Pythagorean system of mathematical philosophy” (1928, 69).

Because this work focuses upon the numerical relationships in music, the numerological functions shall only be explored to the number ten, because of its place in the Tetractys. The number one (1), also known as the *monad*, was taken as masculine, creative, and the origin. This number was taken as symbolic of God, “because it is the beginning and end of all, but itself has neither beginning nor end” (Hall 1928, LXXI). The number two (2), known as the *duad*, is thought of as the feminine. If one is the father, two is the mother. It is the polar opposite of the *monad*, because it is equally divisible and the first number that divides itself from the monad (Hall 1928, LXXII). The number three (3) is the *triad*, or in other mystical systems: *trinity*. It is the unity of opposites: $1+2 = 3$. It is the first truly sacred number. The next number, four (4), is known as the *tetrad*. This was taught by the Pythagoreans to be the origin of all things material, which later translates to the understanding of the number four to represent the material world. It is also the first geometrical solid. Later, in exploration of Masonic numerology, this section will show the relationship between 3 and 4.

The next number, five (5), is known as the *pentad*. This number is the union of three and two – of equilibrium and the feminine. It symbolizes the fifth element of *ether*, or the spirit and soul. It is also known as another form of equilibrium, because it divides the perfect number (10) into equal parts. The tetrad (four elements) and the monad create the pentad. This is why the symbol of the star (the pentagram) was chosen as the symbol for health and vitality. The number six (6) as the *hexad* is the union of two triangles – one masculine and one feminine – and might be conceived as two opposites in one, just like the trinity. Because of this, it is often seen as the exploration of the mysteries and the universe. The *heptad*, or number seven (7), is the sacred number of religion, life and the union of the three (spirit, mind and soul) descending into the four (the world). Thus, it is the governing of humankind by the father through Law – religion. The number eight (8), the *ogdoad* is the first cube, is symbolic of the raising and lowering of the material world – creation and destruction.

The final number before the greatest and most perfect number is known as the *ennead*, which is the triple trinity ($3 + 3 + 3 = 9$). It is also seen as failure and shortcoming, because it is only by adding the monad – or the creator – that it may become the perfect number (10). This triple trinity shows up in Masonic symbolism and many alchemical practices to be seen later. The greatest number, revealed in the Tetractys, is the number ten (10), the *decad*. It is this reason that in finding the *Golden Mean*, this work will rely upon the Pythagorean Decad and the ineffable number of π , which shall be discussed later in this section (Hall 1928, L-LXXXIV).

This understanding of symbols now makes the possibility of approaching purely allegorical, spiritual or moral symbols discovered in a work of music much more readily

understandable. These symbols might also be Masonic, but in this context will stand as symbols of spirituality of their own right. This section will now approach three specific symbols that can be understood as spiritually significant in music: The number three, number five and the Golden Mean.

The number three is symbolic of deity, the trinity of the Christian teachings, the unity of the Origin, Emanation and Individuation, as well as the three aspects of Body, Mind and Soul (Hall 1977, LXIX-LXX). These concepts, in music, might crop up in the meter of a piece of music, in the key changes, or in something as simple as a three note pattern. Freemasonry adopted the number three for many reasons, and it appears at many times in the rituals, and even in the governance of a lodge. For example, shared with typical parliamentary procedure are the gavels to raise and lower the lodge: three knocks cause everyone to stand. One knock seats them. The usage of the number three in many mystical orders is evidence of its importance. Cultures all over the world revere this number, and the object that symbolizes its meaning: the Triangle. In music, we might even consider that the triad is a symbol of this numerical device. Here, as in all things mystical, we find a Root, a portion of Strength (the fifth), and a portion of Beauty (the third). When scoring a chord, we often avoid doubling the third, because it will become weak. Likewise, too much fifth will cause music to be too hollow. The *equilibrium* of all three pitches is necessary for aesthetic enjoyment.

The number five has many symbolic aspects. Primarily, it is the number of the five elements of creation and the number of humanity. Fire, Earth, Air, Water and Ether (spirit) compose the existence of a human; these are taken symbolically by the legs, arms and head. Even in gnostic Christianity the teachings confirm that the five wounds of

Christ are symbolic of the five elements within man, and that the secret doctrine of Christianity is that the *heart* not the *head* is the seat of the Soul – symbolized by Christ being pierced in the breast, yet the crown of thorns he wore not being considered one of his five wounds (Hall 1928⁸). Freemasonry adopted the number five in the meanings of the five senses of humanity – tasting, feeling, smelling, seeing, and hearing. Each of these is associated with a particular element in alchemy, and as such *music* which is heard is afforded the element of *ether* – which is particularly symbolic of the ineffable and perfect nature of music to humanity. Masonry also partners the five species of architecture and the five points of fellowship with the sacred number five (Grand Lodge of Texas A. F. & A. M. 2002, 48-64).

The Golden Mean has long been the speculation of various philosophers and musicians. To the Pythagoreans, it was a perfect proportion that could not be contrived in exactness. One might imagine that the golden mean came closest to the ratio of 3:2 – which is the same as the perfect fifth. Many have attempted to come to a concrete number that is closest to the golden mean as possible – the Fibonacci series, for example, is often misquoted to cite the ratio of .6182 as the golden mean found in the natural world, however this is inaccurate. The Golden *Ratio* can be declared when the ratio of the sum of two quantities to the larger quantity is equal to the ratio of the larger quantity to the smaller quantity. Algebraically this can be shown as

$$\frac{a + b}{2} = \frac{a}{b} = \varphi = 1.618033 \dots$$

⁸ Hall references the numerological aspects designating these symbols in numerous passages and the following chapters: *The Sun, a Universal Deity*, *Pythagorean Mathematics*, *The Human body in symbolism*, *The Elements and their Inhabitants*, *The Qabbalah*, *the Secret Doctrine of Israel*, *Mystic Christianity*, *The Cross and the Crucifixion*, and *The Mystery of the Apocalypse*.

This is slightly different from the Golden Mean in philosophical concepts, as the Golden Mean attempts to create the Golden Proportion – that which is *perfect* in the universe. Adopting .6182 as the Golden Mean (which can easily be seen as the ratio remainder) would adopt a static number. A static number would be effable, and therefore unable to contain perfection. This thought is deeply rooted in the Pythagorean adoration for the value of 0. Zero has no value, and cannot be conceived. It is truly ineffable. Further, the most Perfect number to the Pythagoreans was the number 10, which is in the Tetractys (Figure 1). This is the triple trinity (9) added to the Monad (1); in some modern initiatory Pythagorean teachings, it is the Monad with the Nothing (0), which is entirely speculative – and there is no evidence that the Pythagoreans taught 10 as such. Nevertheless, there is such a number that never ends, and cycles infinitely, that is a portion of one of the perfect symbols in Pythagorean geometry – the circle: it is π . Π is mathematically referred to as $3.14159265\dots$ Through this number, this work will now briefly formulate a short mathematical equation for the purpose of finding the Golden Mean in Pythagorean form.

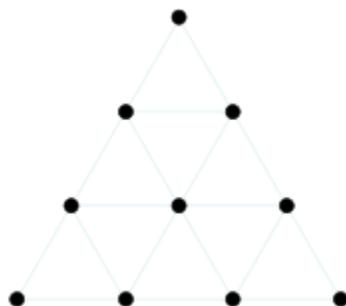


Figure 1 The Tetractys holds many secrets of Pythagorean tradition, as well as modern alchemical practices.

The process is as simple as to subtract π from the perfect number (10). Whereby $10 - \pi = 6.8584 \dots$ which must then be placed in ratio form by dividing the whole difference by 10, as shown below:

$$\frac{(10 - \pi)}{10}$$

This now provides the useful ratio of .68584... which (in theory) never repeats, and never concludes. This would be more appropriate to a symbolic and *ineffable* Golden Mean. Visually, this can be represented by a line with a point upon it, and compared to the Fibonacci ratio as well, as shown in figure 2.



Figure 2 Golden Mean Comparison of .6182 Golden Mean (top) found through Fibonacci and .68584... Golden Mean (bottom) found through π . As can be seen, the perfect ratio is approached from either direction and might be imagined somewhere between the two points.

Even taking these two numerical values and multiplying them by the total number of half steps in an octave, we find the second ratio, based on π , to be closer to the seven half steps of the perfect fifth by virtue of the ratio 3:2.

$$.6182 \times 12 = 7.4184$$

Whereby

$$\frac{12}{7.4184} = 1.617599 \dots$$

Compared to:

$$.68584 \dots \times 12 = 8.23008 \dots$$

Whereby

$$\frac{12}{8.23008 \dots} = 1.458064 \dots$$

And

$$\frac{3}{2} = 1.5$$

Thus providing that the Golden Mean based upon π results in a number far closer to the numeric philosophy of Pythagoras, and a number that will infinitely reach closer and closer to 3:2, where the Fibonacci based equation will reach further and further from 3:2. This notion, while seemingly miniscule in a musical context, will be how this section identifies the Golden Mean of the pieces of music analyzed, and is the measurement referenced by the term Golden Mean hereafter, except where indicated otherwise.



Root Third Fifth Octave

Figure 3 The Octave can show the Golden Mean in its composition. The fifth creates a Golden Mean of the octave. The third creates a golden mean of the fifth. Note that the “half-way” mark between root and fifth does not exist – it is somewhere between the M3 and m3.

The Golden Mean, when contextualized as such, much like the Golden Ratio, symbolizes all things Godly and Perfect. It is the ineffable quality of the spiritual plane – of which music is considered a part therein. When these ratios are compared to the musical position of the three notes of a triad played over one octave – root, third, fifth and octave – it is easy to determine that the entire triadic ratio is built upon the Golden Mean (figure 3). This is the cause for certain tuning tendencies in instrumental performance when playing a major or minor triad – such as lowering the third in a major triad, and raising the fifth in both cases (only in a miniscule manner).

3.2. Symbols in Modes

Each interval and mode had a planet that corresponded in the Pythagorean theory of music passed between the various teachers within – Plato, Pliny the Elder, and a number of others that are so numerous that the appendix of *Harmony of the Spheres* that references the correspondences is over a page and a half long (Godwin 1993, 490-491 for the complete list). These ideas even extended to the effect that music had upon the body, mind and soul, which shall be explored later in a more modern contextualization of the Jungian theory of Psychology. According to Hall, on one such occasion, a disciple of Pythagoras changed a performance from one mode to another to stop a murder. Esculapius, a Greek physician, made the practice of curing illness by the playing of loud trumpets in the presence of patients. Pythagoras reportedly cured ailments of the spirit and body with specific compositions involving various modes – all of which held a correspondence to the symbolic heavens. (Hall 1928, LII-LIV.)

The linear history relating the Greek concept of mode to the present modal system is filled with interruption and misinterpretation. While to the Greeks *modus* simply meant rule, it is the *tonoi* that exemplifies the modern concept of tone or pitch, and the *harmoniaia* that identifies the type of organization of said tones and pitch⁹. The best work that removes as much of the historical grayness as possible is contributed by Joscelyn Godwin, in *The Harmony of the Spheres*, in which Godwin identifies and explains the various Pythagorean Tradition as it is passed from the Greek Classical period, to Medieval, to Renaissance, Baroque and finally Enlightenment and Romanticism. The

⁹ See Mathiesen, Thomas J. (1999) for a concise exploration of Greek music theory in performance and the literal manifestation of notation. This thesis focuses upon the speculative and symbolic correspondence in mode.

concepts within *The Harmony of the Spheres* include the various creation myths that involve music or musical intervals within – these identify the correspondence with planet and mode (or in some cases, the tones of a scale). In order to identify a consistent model of planetary correspondence, three commonly cited scales are presented. One such is derived from a poem identifying the ‘natural concord of notes with planets.’ This is attributed to “Anonymous of the Twelfth Century” in a manuscript of Boethius *De Institutione de musica*, and includes the full poem and chart that accompanied the original poem (Godwin 1993, 123-125).

*“There is a concord of planets similar to that of notes.
 From Earth to Heaven a divine order ascends.
 Tully thus enumerates them, rising from the bottom:
 Moon, Hermes, Venus and Sun, Mars, Jupiter and Saturn.
 In similar order you should sing your notes:
 Give the Moon’s first, which is proximate to Earth,
 Then observe how much higher Mercury is;
 This interval in the musical system amounts to one tone.
 Venus, following, certainly marks off an interval worth a leimma;
 Then a tone to the Sun fills out the fourth.
 And bellicose Mars with another tone completes a fifth.
 Jupiter of the white locks sings his brief leimma,
 And lofty Saturn, for his part, joins a tone to these...”*

Given the exact nature of the explanation of the space between each pitch, the planetary relationship is given in an intervallic manner within one single octave. The

In the figure, scale tones are listed on the right while the energies of elements and planets form the distance between the pitches. In this way, the pitches themselves are not the correspondences, but the space between (tone or semitone) and in a specific octave (beginning on Γ and continuing as shown, spanning a total of two octaves – the *disdiapson*). This interpretation may be based more upon the perceived ratios; for example, the literal distance between Γ and A is not the same as G to a, and so forth.

The third and final example of scale is offered by Fabre d'Olivet who declares a diatonic correspondence of planets that does not match the planetary order in the Greek tradition of the heavens moving away from the Earth – but rather a heliocentric model based on actual planetary relationship rather than speculative relationship, shown below (Godwin 1993, 354).

B	C	D	E	F	G	A
Saturn	Jupiter	Mars	Sun	Venus	Mercury	Moon

Figure 5 Olivet's Diatonic System of Correspondence
pits planets in opposition around the Sun, working the octave in mirror.

Taking these three examples as a continuance of various Pythagorean traditions, and in order to further define which model of alchemical correspondence is to be used in this thesis, it becomes necessary to identify certain alchemical correspondences already in place.

Table 1 Comparison of Tone and Planet Relationships

	Moon	Mercury	Venus	Sun	Mars	Jupiter	Saturn
<i>Anonymous</i>	A	B	C	D	E	F	G
<i>Fludd</i>	C-D	D-E	E-F	G (F-a)	a-b	b-c	c-d
<i>Olivet</i>	A	G	F	E	D	C	B

This process begins with an acknowledgement that, as mentioned, there are many correspondences and not of them all agree. Hermetic Alchemy cites many progenitors, but many use Pythagorean mathematics, symbolism, and understanding of elements and planets in the correspondence therein. There being many scale systems that claim symbolism with the planets, choosing a scale will ultimately cause critics to argue for other scale uses. As such, after careful consideration of the scales and patterns of astronomical distance, it is not in the scientific exactness of ratios that the scale used in this thesis has been chosen. Rather, it is in the speculative – philosophical – example offered by the *anonymous of the twelfth century*. The scale derived from this poem is the “Pythagorean one of the *Timaeus*” (Godwin 1993, 441). This being the case, and the tradition in alchemy seeking the most ancient available knowledge, thus this thesis uses the scale provided for the planets, not only because of its antiquity, but because it survived to the twelfth century and was intact as it was in the *Timaeus*. It fits two already accepted correspondences: The first of these is the correspondence between planet and the menorah, explained by Hall as “the sun in the center... with three planets on either

side” (1928, 53). The second is the correspondence that the moon is the lowest of the spheres, and Saturn the highest, therefore – opposed to Boethius and Nichomachus – the scale should ascend (Godwin 1993, 9-15 and 86-87). This does not mean that the moon is necessarily the *darkest* of the spheres, but as with all alchemical correspondence, one must choose a system and use it consistently for the teachings to be meaningful¹⁰.

Not only must a scale be chosen for the correspondence of pitches and planets, but full modes built upon each of those aforementioned scale degrees must be used in order to identify future modal references. The following chart has been developed for such a purpose, using the diatonic white keys of the piano to create scales with the fundamental upon the planetary correspondences offered by Anonymous.

Table 2 Planetary Correspondence by Diatonic Scale

<i>Octave</i>	<i>Planet</i>
A-a	Moon
B-b	Mercury
C-c	Venus
D-d	Sun
E-e	Mars
F-f	Jupiter
G-g	Saturn

Each diatonic scale can now be identified with certain intervallic patterns, shown below.

¹⁰ As mentioned in the first chapter, Alchemy uses many correspondences. Namely, the correspondences of color which are conflicting – there are two primary systems known as the King’s Scale and Queen’s Scale which involve the various tarnishing of the metals of each planet.

Table 3 Intervallic Patterns and Planets

<i>Interval Pattern</i>	<i>Scale (Mode)</i>	<i>Planet</i>
TST * STT	Aeolian	Moon
STT * TTT	Locrian	Mercury
TTS * TTS	Ionian	Venus
TST * TST	Dorian	Sun
STT * TST	Phrygian	Mars
TTT * TTS	Lydian	Jupiter
TTS * TST	Mixolydian	Saturn
* = midpoint of Scale	T= Tone	S = Semitone

Immediately there is a pattern that shows. However, before approaching this pattern it becomes necessary to explain the chart and its component parts. Rather than numerical pitch-centered based intervals, a simple tone and semi-tone system is employed. Each scale is divided into two tetrachords, the first beginning on the fundamental pitch of the scale, the second upon the fifth. This is done because of the modal importance given to the fifth in medieval chant, as well as the harmonic implication of the *dominus*. In each case, the difference between the $\hat{4}$ and $\hat{5}$, with exception to Locrian and Lydian, is a tone. Because of this, the tetrachords are shown as divided by an asterix, rather than “T” or “S” in order to avoid confusing the importance of the tetrachords composing the mode. These shall be referred to as the primary

tetrachords of each mode. Note that each of these patterns brings the scale back to tonic. In order to better develop an understanding of the symbolism in the component parts of each mode and the pattern shown, it becomes necessary to identify the planets in their *masculine* and *feminine* properties.

The various properties of the planets can be explored in-depth through a survey of alchemical and Rosicrucian texts. This brief explanation is taken from *Ptolemy's Tetrabiblos*, translated by J.M. Ashmand.

Again, since there are two primary kinds of natures, male and female, and of the forces already mentioned that of the moist is especially feminine—for as a general thing this element is present to a greater degree in all females, and the others rather in males with good reason the view has been handed down to us that the moon and Venus are feminine, because they share more largely in the moist, and that the sun, Saturn, Jupiter, and Mars are masculine, and Mercury common to both genders, inasmuch as he produces the dry and the moist alike. (Ashmand 1822, 21-22.)

For the purpose of identifying the modes as *only* masculine or feminine, the following adjustments have been made for simplicity:

Table 4 Forces, Planets and Modes

<i>Force</i>	<i>Planet</i>	<i>Mode</i>
Feminine	Moon	Aeolian
Feminine	Mercury	Locrian
Feminine	Venus	Ionian
<i>Neutral</i>	<i>Sun</i>	<i>Dorian</i>
Masculine	Mars	Phrygian
Masculine	Jupiter	Lydian
Masculine	Saturn	Mixolydian

Each mode corresponding with a planet of masculine or feminine quality therefore corresponds with a masculine or feminine quality. The intervals of each mode therefore correspond with functional masculine or feminine qualities. It becomes obvious that there is a reflection about the Dorian mode in the chart. The interval qualities of the modes can now be divided into smaller groups. There are four patterns: TST, TTS, STT, and TTT.

Table 5 Forces and Interval Patterns

<i>Interval Pattern</i>	<i>Scale</i>	<i>Force</i>
TST * STT	Aeolian	Feminine
STT * TTT	Locrian	Feminine/Masculine
TTS * TTS	Ionian	Feminine
TST * TST	Dorian	Neutral
STT * STT	Phrygian	Masculine
TTT * TTS	Lydian	Masculine/Feminine
TTS * TST	Mixolydian	Masculine

The small patterns shall now be labeled in their masculine and feminine forces. TST is the most readily identified as neutral – while the sun might be a masculine (creative) symbol, it is, as mentioned earlier, in the center of the planets (and the menorah) and therefore neutral (Hall 1928, LIII). All modes with TST in the primary tetrachords must therefore label the masculine and feminine small patterns – if TST is neutral, then the other tetrachord paired with it must be masculine or feminine, depending upon the planet. Mixolydian (TTS*TST) – masculine – identifies TTS as a masculine series. Aeolian (TST*STT) – feminine – identifies STT as a feminine series. Lydian and Locrian follow suit with the added, and undefined, TTT pattern. Finally, Ionian (TTS*TTS) – feminine – and Phrygian (STT*STT) – masculine – identify that the doubling of these series of intervals does not create double the energy, but rather functions as multiplying two negative numbers. That is, *masculine x masculine = feminine* and *feminine x feminine = masculine*. The only interval series that is now

undefined as masculine or feminine is TTT, which can be explained in the above quote: “...Mercury common to both genders.” Jupiter being a creative and sustaining planet, it can also be considered to function in both mediums of the masculine (creative) and feminine (sustaining) (Hall 1928). Therefore it is possible to see that while TST is neutral, TTT adds the opposite polarity from what is already there. This might be considered *reflective neutrality*. With the scales completely defined, it can now be shown that the correspondences of the scales with the planets are indeed logical, and comparatively practical – opposed to only speculative in nature. It is also interesting that if all of the modes are lined up, a point of symmetry can be found at the tetrachord split in the middle mode as shown below:

TSTtSTT STTsTTT TTStTTS TSTtTST STTtSTT TTTsTTS TTStTST

Aeol. Loc. Ion. Do. Ph. Ly. Mix.

Figure 6 Symmetry of Modes: Modes are reflective around the central mode. In this case, Dorian is in the center. If the figure is shifted to show, for example, Lydian at the center, it would be reflected to reveal the same pattern as Lydian.

It is interesting that the previously labeled intervals of * that represented the split of the tetrachords in the modes is the same as the dorian mode (t s t t s t), when organized in the Greek classical tradition. Thus, it seems that the Sun can be considered – as it was with the ancients – to be the origin point (☉). Whether it was intended or not, it can be seen that the mode is inherently a part of all of the other modes, in the same way that the Sun is considered to be a part of all the light given to the other planets (symbolically and literally, since the planets are visible only by reflecting the sun’s light).

One could simply stop here with correspondence, but in this order of modal sequencing any mode placed ‘in the center’ would be reflected in the internal intervals of the other modes. Moving Ionian to the center (TTStTTS), and rotating all other modes in the same direction, would create the same pattern as Ionian in the internal intervals. This is caused by the number of intervals being the same as the number of modes. As the Jungian archetypes and filters of perception are later explored, it will show that this is symbolic in its own right of the present moment of thought.

It is not enough that planets align with modes, or that the intervals of a mode are labeled masculine and feminine. These symbols must have a meaning and a usefulness that can be made to correspond not only with harmonic, melodic or key-related interval systems, but also with lyrics. How much more powerful and meaningful a piece if the modal reference and the lyrics are aligned than if they are unrelated. As such, the association between each planet provided and the Jungian archetypes mentioned in the introduction shall now be explored for the purpose of finding words and phrases that match the archetypes of the Jungian system of the unconscious.

3.3. Correspondence through the lens of Jungian Psychology

To begin, ‘archetype’ can be understood as a universal principle or trait of effect upon reality or a personality. Explained by Richard Tarnas “Jung thought of archetypes as the basic constituents of the human psyche, shared cross-culturally by all human beings, and he regarded them as universal expressions of a collective unconscious. Much earlier, the Platonic tradition considered archetypes to be not only psychological but also cosmic and objective, as primordial forms of a Universal Mind that transcended the human psyche.” (Tarnas 2012.)

It has become apparent that music can cause a change in mood. Studies have been performed to determine what change can occur in mood – specifically what mode. These studies are limited to the listening and performance of works by “the greats” – for example, multiple studies have determined that mode (major or minor) have the ability to create elated, joyful, tiresome and depressed moods (Hinn 1996).

Mood has also been linked to the Jungian archetypes associated with the *transformation of self*. Jung declares that the archetypal placement of myth and religion corresponds with personal growth and development. In other words, the struggles and place of *self* in the overall scheme of life can be related to twelve archetypes that repeatedly crop up in mythology. A person might be shifting through any of these archetypes at any point until achieving fullness – if at all (Jung 1976, 227-252). These archetypes are also related to alchemical transformation (Jung 1967 and 1968).

This section will be divided into three principal parts: the first will identify the relationships between perceived moods and archetypes presented in Jung's alchemical writings. The second will identify what alchemical processes are related to the various archetypes – in particular the Greek Planet Mythology. The final portion of this section will develop relationships among the seven modes, seven planets, and various archetypes presented in Jung's work.

Are Mood and Archetypes Related? To answer this question requires some exploration of what the archetypes of Jung truly represent. In his own words, the archetypes are “an inherited *tendency* of the human mind to form representations of mythological motifs – representations that vary a great deal without losing their basic pattern” (1976, 228, [Jung's emphasis]). The following chart, taken from Lburmaster (2012), shows the twelve basic archetypes and their corresponding psychological processes:

Table 6 Archetypes and Descriptors¹¹			
Archetype	Motivation	Motto	Core Desire
Creator	Stability & Control	If it can be imagined it can be created	Create something of enduring value.
Caregiver	Stability & Control	Love your neighbor as yourself	Protect people from harm.
Ruler	Stability & Control	Power isn't everything. It's the only thing.	Control.
Jester	Belonging & enjoyment	If I can't dance, I don't want to be part of your revolution.	To live in the moment with full enjoyment.
Regular Gal/Guy	Belonging & enjoyment	All men and women are created equal.	Connection with others.
Lover	Belonging & enjoyment	I only have eyes for you.	Attain intimacy and experience sexual pleasure.
Hero	Risk & mastery	Where there's a will, there's a way.	To prove one's worth through courageous and difficult action.
Outlaw	Risk & mastery	Rules are meant to be broken.	Revenge or revolution.
Magician	Risk & mastery	It can happen!	Knowledge of the fundamental laws of how the world or universe works.
Innocent	Independence & fulfillment	Free to be you and me.	To experience paradise.
Explorer	Independence & fulfillment	Don't fence me in.	The freedom to find out who you are through exploring the world.
Sage	Independence & fulfillment	The truth will set you free.	The discovery of truth.

These are linked to the four core archetypes of *The Ego*, *The Shadow*, *The Anima/Animus* and *The Self* (Changing Minds, 2012). Jung explains that the boundary of the *ego* (conscious mind) is that which manifests as the three latter archetypes (unconscious mind). The *shadow*, for example, represents those parts of our mind that have a certain disposition towards our present directive. This disposition usually rises up in some sort of conflict with the *ego*, or some subversive interaction with reality, and can even be discovered in those we surround ourselves with and in our dreams. The *anima/animus*

¹¹ Taken from Lburmaster (2012).

represents the marriage of the opposition of our core understanding of *me* (ego). For example, a woman would have an imprint upon her ego that is masculine, drawing from the natural bond created with a child and the parent of the opposite sex (a man would have an *anima*). This portion of the unconscious may cause problems relating to projection, and is not entirely limited to one sex or another but rather with the identity and imprint of the ego. Finally, the *self* is understood to be the internal *God* of each individual. This would be the shard of creation within one another, or in the trinity of Christianity: *The Christ* (Jung 1959, 3-39).

The remaining archetypes might be better understood if they are contextualized in a symbolic fashion. As Jung indicated, the archetypes are not ‘hard and fast’, but rather examples that can be followed to understand an origin of a thought, action, or – in the case of religion – a myth. Therefore, it is easy to see the connection between individual archetypes and a perceived mood. An example of a personality based system is presented by ChangingMinds in the following chart (2012):

- Family archetypes
 - The father: Stern, powerful, controlling
 - The mother: Feeding, nurturing, soothing
 - The child: Birth, beginnings, salvation
- Story archetypes
 - The hero: Rescuer, champion
 - The maiden: Purity, desire
 - The wise old man: Knowledge, guidance
 - The magician: Mysterious, powerful
 - The earth mother: Nature
 - The witch or sorceress: Dangerous
 - The trickster: Deceiving, hidden
- Animal archetypes
 - The faithful dog: Unquestioning loyalty
 - The enduring horse: Never giving up
 - The devious cat: Self-serving

These archetypes show particularly identifiable personality traits that could, theoretically, have mood attached to them. Implicit in each label is a persona that would seemingly create a mood within the participant of that persona. One need only imagine the archetype of the *mother* and an image of a demeanor of ‘nurturing and soothing’ that is ‘nurturing and soothing’ might imply a passive and receptive mood. The number of archetypes are not limited to those shown, but rather explained better by the musical explanation of Burroughs (2004), in that “Jungian archetypes help us construct meanings in a flexible and general way. Similarly, the musical archetype is any kind of generative or recurrent thematic element which helps to explain the structure or emergent qualities of a piece of improvised music” (10). From this statement the inherent understanding that the infinite number of archetypes that one might interact with can be formulated by any given medium, and share certain qualities between mediums (the symbol of the Hero of the Bhagavad Gita compared to Christ, for example – two different contexts, but a very similar symbolic meaning.) With this in mind, this section shall approach the planetary archetypes of the Greeks and compare them to the Jungian archetypes mentioned.

Are the Archetypes of Jung in correspondence with alchemical planetary systems?

In short: Yes. Tarnas (2009a) explores the relationship between the astrological (alchemical) planetary correspondence and Jungian archetypes. While each of these archetypes might not have the *exact same* meanings, it can be understood that the meanings are similar enough to allow an overlap of understanding, philosophically.

Tarnas uses the following example (emphasis is my own):

“For conceptual clarity, then, it is useful to understand these principles in three different senses: in the Homeric sense as a primordial deity and mythic figure; in the Platonic sense as a cosmic and metaphysical principle; and in the Jungian sense as a psychological principle (with its Kantian and Freudian background)—with all of these associated with a specific planet. For example, the archetype of Venus can be approached on the Homeric level as the Greek mythic figure of Aphrodite, the goddess of beauty and love... On the Platonic level Venus can be understood in terms of the metaphysical principle of Eros and the Beautiful. And on the Jungian level Venus can be viewed as the psychological tendency to perceive, desire, create, or in some other way experience beauty and love, to attract and be attracted, to seek harmony and aesthetic or sensuous pleasure.... *These different levels or senses are distinguished here only to suggest the inherent complexity of archetypes, which must be formulated not as literal concretely definable entities but rather as dynamic potentialities and essences of meaning that cannot be localized or restricted to a specific dimension.*”

- (Tarnas 2009a, 30.)

This grants passage between the planets and the archetypes in a myriad of ways. For this, a chart of planets, concerning those qualities of the ancient Greek planet archetypes and the archetype that matches best in Jungian terminology, is necessary. Rather than confuse the issue by using the Greek names for the planets, it will maintain the modern planetary nomenclature.

Table 7 Planetary Archetypes¹²				
Planet	Mode	Alchemical Descriptors	Jungian Archetype	Personality Descriptors
Moon	Aeolian	The nurturing and sustaining aspect, the emanation and receiver of light, the <i>yin</i>	The Earth Mother	Nurture, emotions, natural world acting on its own, caregiver
Mercury	Locrian	Messenger; the Logos, thought, the one that causes or is changed	Communicator/Messenger	Open to changing, information gathering, growth and adaptation
Venus	Ionian	The redeemer, beautifier, and the attractor.	Lover	Aesthetic seeker, accepting of beauty, the Eros
Sun	Dorian	The Will to Create, the individual, the <i>yang</i>	The Hero	The ego and self, the champion, rescuer, one who redeems
Mars	Phrygian	To cause, energy to do 'energetically or forcefully', conflict oriented	The Warrior and Conqueror	Exert Will, desire more, competitive nature, combative nature, destructive
Jupiter	Lydian	Joy, progress, fraternity, unity, optimism	Teacher, Questor, Explorer	To seek more, to grow, personal superiority, expansion
Saturn	Mixolydian	Death, Eternity, Time, Structure, Labels, Stability, Limits and Boundaries	Ruler and Sage	Knowledge, limits, self-limiting behavior, time, concentration, thought

Modes having been identified with certain corresponding planets, and those planetary aspects matching Jungian archetypes, therefore a method of identifying a modal relationship is presented in the following chapter in order to discover symbolic meaning in selected pieces of music.

¹² The relationships developed are taken from many sources, including Jung (1959, 1967, 1968, 1976), Tarnas (2009b), Belanger (2006), Hall (1977), and ChangingMinds.

4. SYMBOLIC ANALYSIS OF SELECTED PIECES

In order to show the relevance of the symbolic explorations already made, three pieces are here presented in symbolic analysis. Each analysis approaches the aforementioned symbolic maxims already discussed, such as numerological symbolism, alchemical (modal) references, and archetype correspondences with Jungian Psychology. In order to identify a property or passage in music to have a relationship with one or more of said modes, refer to table 8. The selected pieces are *Schaut ihr Sünder* (Bach 1730?), *Requiem* (Mozart 1791?), and *Canope* (Debussy 1913).

Table 8 Identifying Properties of Modes		
Identifying Property	Defined	Example
Scale/Melody	A scale that is of obvious modal identity or melody built upon said scale.	Plainchant
Key Relation	The relationship between any given tonal center and another by virtue of the comparison of scale degree to the 'new' compared to 'original' key	Modulation to the iii from the major (Ionian) mode may hint at a Phrygian relationship
Harmonic Feel	The feeling generated by a specific harmonic device compared to the same device found in a particular mode	Phrygian Half-Cadence and N ⁶ are examples of 'borrowed' modal references from the Phrygian mode; V/V may be a reference to Lydian (leading tone of V)

4.1. Phrygian Suffering: Symbolic Analysis of *Schaut ihr Sünder* (1730)

It is now time to approach a composer that is most notably *not modal*, and perhaps one who defines the rules and usages of the *tonal* existence: Bach.

It would simply not be acceptable to declare any portion of a Bach chorale as *modal*, but one might find certain relationships within such a chorale that could be considered – or construed – as modal references towards specific sound qualities. This begins with an understanding that it is the perceptive moment of experience with music that defines the energy exchange between music and listener. Provided are three examples of mystical aspects to be found in the Bach Chorale *Schaut ihr Sünder* (1730?): a Phrygian Half-Cadence, Dorian Modal Statement and the usage of the Golden Mean in a very special way.

The passage in m. 3, “Grosse Pein!” (Great Anguish) fits the descriptors of the Phrygian device – in this moment the “half step” from the bass line acts as the usual Phrygian modal action – thus giving “Mars” or “conquest/conflict.” Consider that the “half step” relation we hear is more than a momentary cadential expression to the V, but rather a moment where “V” becomes “I” and the object heard are scale degrees “2” and “4” in the Phrygian scale built upon the V, before returning to the “tonic” of the moment in the major mode.

M. 7 finishes with a g minor (i) and immediately in m. 8 begins with the C⁶ (that becomes a C⁵) or V in the key of F Major here modulated. The g minor – C Major acts as a i – IV Dorian relationship. The lyrics here are “seid ihr hiervon befreit” (You are Exempt from this [by my dying]) before the 7th is added.

We see a reference to Resurrection or immortality without suffering – exemption from suffering due to bringing light, a key word of the Dorian descriptors. It is important to note that the “important tone” of the Dorian Mode (here E \natural) is in the Bass, thus drawing attention to the modal moment, and then made fluid by the 7th added to bring the full modulation to F.

The golden mean shows up in three ways specific to this work. The use of the Dorian relationship in m8 is in the golden mean measure (specifically the beats between the first E \natural and the 16th notes); The key usage (g – B \flat – g – F – g) places the F section not only linearly in the golden mean, but as the V of B \flat , it is the golden mean of the Relative Octave (the octave of the relative major to g minor); The usage of the G \sharp in m11 is at the final golden ratio point between m8 beat 3.5 and the final cadence to G (I) in m12. This use of a V \sharp /IV or as a I \sharp relationship to G is found in the Mixolydian mode – the mode of Saturn, or Eternity and Eternal Knowledge. This final phrase is “der wahren seligkeit” (The True Bliss).

The image displays a musical score for Bach's *Schaht, ihr Sünder* in G major, 4/4 time. The score is divided into three systems, each with a vocal line and a piano accompaniment line. The lyrics are: "Schaht, ihr Sun - Der / Ihr Macht mir / gro - sse Pein! / Ihr sollt Kin - der / von be - freit / und nun Er - ben / der wah - ren / Se - lig - keit. / hier -".

Key annotations include:

- Phrygian Half-Cadence (Mars):** A red box highlights the melodic phrase "gro - sse Pein!" in measure 3, which ends on the lowered second degree (F#).
- Dorian Relationships (Sum):** A yellow box highlights the melodic phrase "ben - seid" in measure 7, which features a raised second degree (A#).
- Golden Ratio:** A blue vertical line is placed at the beginning of measure 11, corresponding to the word "der".
- Golden Mean:** A blue vertical line is placed at the beginning of measure 8, corresponding to the word "ben".

Measure numbers 5 and 9 are indicated at the start of the second and third systems, respectively.

Figure 7 Bach's *Schaht, ihr Sünder*. Showing Phrygian Half -cadence (m. 3), Dorian Relationships (mm. 7-8) and Golden Ratio (m. 11).

4.2. Spiritual Requiem: Symbolic Analysis of *Requiem* (1791)

It would suffice to simply identify the traditional masonic aspects of the work and appease the hungry hands of those scholars who have already identified certain features – such as overlapping ties and the ‘three knocks’ of Mozart’s compositions – to be present in the work. That is not sufficient, however, for determining spiritually sound practices that overlap in Freemasonry. Freemasonry is not absent of sacred context, with special emphasis given to all spiritualities, especially gnostic Christian and Hebrew teachings (Pike 1871).

Therefore, this section will focus upon three primary areas of the *Requiem*: the Introit, Hostias, and Key Scheme of the whole work. The Introit will be studied because it is the only movement of the work that was entirely orchestrated by Mozart without any outside interference of voicing or composition (DeWitt). The Hostias will be approached because it is, or ought to be, the golden mean movement of the piece (movement 9, which shall be explained later). Finally, the key scheme of the work is built upon many masonic symbols, and all of the symbols discussed in the first section of this section. There are far too many symbols to be contained in such a short section as this, therefore only three examples of each section will be extracted for the purpose of identifying symbolic context.

Introit

The Introit begins with a Bassett Horn duet. The Bassett horn is taken as a masonic instrument because of the relationship between Anton Stadler and Mozart (Poulin 1982). Here, the ties of the Bassett horn indicate the already accepted symbolic gesture of the

‘fraternal ties of Freemasonry’ (Figure 8). Looking at the rhythm of mm. 3-5, there can even be seen a masonic rhythmic

The image shows a musical score for two instruments: Basset Horn in F (top staff) and Bassoon (bottom staff). The music is in 5/4 time. The Basset Horn part starts with a rest in the first measure, followed by a series of notes in measures 2, 3, 4, and 5. The Bassoon part starts with a rest in the first measure, followed by notes in measures 2, 3, 4, and 5. The rhythm in measures 3-5 is characterized by three short notes followed by a long note, which is identified as a masonic rhythmic pattern. The score is labeled with 'Horn I' and 'Horn II' above the respective staves.

Figure 8 Basset Horn Ties are examples of masonic symbolism found in the first six measures of the Requiem.

passage that outlines the *trinity* once again as an important number. Here the “short short short long – short short short long” is in the first basset horn part. If it were to be read metrically, it would better fit in 5/4, which 5/4 is still a measurement of a sacred number – 5. Therefore, the three short knocks in the rhythm, coupled with the feel of 5/4 would suggest not one masonic number, but two: the trinity and the number of the five elements of creation (or in the masonic context: the five points of fellowship). This is even further enhanced by the traditionally accepted masonic symbol of the tie – what a fitting symbolic gesture to have the five points of fellowship and the fraternal bond symbolized in the first five measures of the *Requiem*. The trombone entrance of m. 7 also references the sacred number three (Figure 9). The first three pitches of the Trombone choir stand out far greater than the final downbeat, seemingly a call to attention that the choir is

Trombone I

Trombone II

Trombone III

Figure 9 Trombone Entrance of m 7 references the symbolic ‘Three’ before the entrance of the full ensemble.

about to begin, not surprisingly on the same beat as the trombones began – beat 2. One might question the symbolism of the number two (2) at this point, simply to validate its numerological existence: two is the sacred feminine (Hall 1977, 69), which has long been taught as the secret meaning of the Square and Compasses in Freemasonry (Figure 10). This now brings the search for symbols into the IX movement, Hostias.

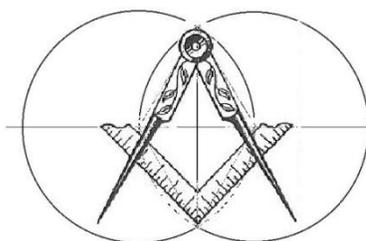


Figure 10 Unification of the Square and Compasses with the *Vesica Piscis* is a representation of the Sacred Feminine.

Hostias

Immediately visible in this movement is the time signature $3/4$. This triple meter allows for the immediate notice of the masonic and spiritual number three. Further, the key signature of this movement begins in $E\flat$ and concludes in G. All the greater, this movement is the Golden Mean movement of the entire work when the total number of movements (12) is multiplied by the Golden Mean. This measurement comes to be 8.23... which might be considered “8 full movements and $1/5$ of a movement. While this is a mathematical equation of the movement structure only, and not of the ‘timing’ of the entire piece, it is fairly obvious that this movement – the only movement in a recognized masonic key ($E\flat$) – has special signification. Therefore, for the purpose of examination, it would be appropriate to search for the “ $1/5$ ” mark of the movement, and also the Golden Mean moment of the movement. There are 89 measures, each with three beats, for a total of 267 beats. $.23$ of this would be 61.41 beats, which is m. 21, beat 1+. This happens to be the release of the vocal line in preparation for the second phrase (Figure 11).

Violin I

Violin II

Viola

Basset Horn 1

Basset Horn 2

Bassoon 1

Bassoon 2

Canto
fa ci mus. Ho sti

Alto
mo ri am fa ci mus. Ho sti

Tenor
mo ri am fa ci mus. Ho sti

Bass
mo ri am fa ci mus. Ho sti

Bassi
mo ri am fa ci mus. Ho sti

Figure 11 Mm. 19-23 Hostias shows the first declaration of the chorus on “Hostias” just following the Golden Mean of the whole work.

This now brings the search towards the Golden Mean of this movement to discover what meanings might be found. With 267 beats in the movement, and the Golden Mean being at beat 183.11, or measure 61.03, we find that we are six measures beyond the key change into the G minor section of the piece. The key change occurs at m. 55, which matches the Fibonacci sequence of .6182, totaling 55.0198 measures. M.62 however, is in the very middle of the first fugue of *'quam olim Abrahae promisisti'*, after the full vocal subject has risen. Looking to the score, it is in the first visual 'wave' of the growth of chorale. Therefore, both moments we have discussed using the Golden Mean (the aforementioned m. 21 and m. 62) have a structurally significant moment; and giving due credit to the Fibonacci series, m. 55 has a harmonic shift that is important to the movement. The first, m. 21, is the release before the first *forte* entrance of the full ensemble – a rather startling effect. Having examined these qualities, it will now be necessary to examine the key structure of the entire piece.

Key Scheme

The whole of the key schemes of this work explore many masonic conceptualizations, from the trinity, to the five, to even the sacred triple trinity. Traditional masonic key signatures include the major keys of E \flat , A and C; they also include the minor keys of a, f \sharp , and c. This is defined by three flats/sharps/naturals in the key signature. This is, once again, a reference to the sacred number three. Identifying the key signatures and their mathematical relationships, the following numerological extrapolation can be made:

Table 9 Keys and Numerological Relationships

Movement	Keys	Relationships
Introitus and Kyrie	d Minor	0
Dies Irae	d Minor	0
Tuba Mirum	B \flat Major	-3
Rex Tremendae	g Minor – d Minor	-3 + 5
Recordare	F Major	+3
Confutatis	a Minor – F	+3 – 3
Lacrimosa	d Minor (Picardy 3 rd ending)	-3
Domine Jesu	g Minor	-5
Hostias	E\flat Major – G minor (Picardy 3rd ending)	-3 + 3
<i>Sanctus</i>	<i>D Major</i>	+5
<i>Benedictus</i>	<i>B\flat Major</i>	-3
<i>Agnus Dei – Lux Aeterna</i>	<i>d minor</i>	+3
		-1

Bold Indicates Golden Mean Movement

Italics indicates wholly composed by Süßmayr

This chart outlines that the relationships between every key change can be seen as unison, third, or fifth related. While this might be considered common for the era of composition, it is still highly interesting that only masonic numbers are used in the convergence of keys. It is also interesting that the ‘Golden Mean’ movement is such a powerful masonic key. In the table, the movement of the Hostias is bold. Those movements, finished by Franz Xaver Süßmayr, are italicized. Mathematically, the only

other masonic key (a minor) is at the Golden Mean point between the beginning and the Hostias.

Finally, the key relationships also allow for modal references that have been explored in chapter three. In this case, the starting key (d minor) shall be taken in its natural form as “d Aeolian”. The following references are submitted in the order in which they appear:

d = Aeolian (Luna/Passive)

B \flat = Lydian (Jupiter/Fraternity)

g = Dorian (Sun/Christ)

F = Ionian (Venus/Resurrection)

a = Phrygian (Mars/Conflict/Dying)

d = Aeolian (Luna/Passive)

g = Dorian (Sun/Christ)

At any time that d minor becomes D Major, it might be taken as the comparison of equilibrium. Because Aeolian represents the moon, and an addition of the major mode into this would undoubtedly add a masculine influence –even though the Ionian mode alone is Feminine, the sequence Tone – Tone – Semitone is purely masculine. A unification of masculine and feminine properties would be a highly masonic concept, as well as alchemical, and the goal of the *alchemical wedding* (Hall 1977, 149-165). All of the planets mentioned above have archetypes that match with masonic thought, and there are five planets (of seven) mentioned. Omitted are Mercury and Saturn. However, it is important to note that if d minor is the Aeolian reference, then any E key would be the Locrian reference therein – thus it might be acknowledged that the key of the Hostias, E \flat , is the Locrian presence that is so desired to complete the Master Mason symbolism. Locrian references Mercury, which is change and the masonic reference of *growth*. The only masonic symbol missing would be that of *age*, which would be represented by

Saturn and the Mixolydian mode – which a consideration of any prolongation of the V in any key to be a Mixolydian *moment*.

Conclusion

This analysis does not delve into the core of each movement, but rather only scratches the surface of meaning and hidden symbols. Where one symbol conceals, another symbol might reveal. It is in the search for more light that a true understanding of the work might be found. This analysis not only brought to light the process of how symbols come to fruition, and become masonic, but also that the *Requiem* held very much gnostic Christian symbolism in the following ways:

- The trinity appears many times in the piece as a reference to the *Father, Son and Holy Spirit* – or in the gnostic teachings: the *Father, Mother and Child*. From the opening of the Introit to the meter of the Hostias, this feeling of a pulse in three, which could also be identified as a pulse in five, was found. It might seem strange to identify three and five in the same sentence as pulse, concerning the same context. However, it is in the microcosm of the meter that we find the three and in the macrocosm that we find the five. In alchemy, this is recognized as the *both/and* principle. Nothing symbolic is *either/or*.
- The number five is also a reference to the symbolic Christ in the form of the five wounds. Coupled with the ties of the first movement's basset horn performance, it is also a reference to the five points of fellowship in Freemasonry.

- Finally, the number one is a reference to the Monad – the creator, originator, and progenitor of reality. In Freemasonry this is known as the *Grand Architect of the Universe*. GOD.

These symbols are but a few that can be gleaned from the work, as well as many others. It is in the core of music that the philosopher can find solace in the ineffable nature of God, and at the same time the ineffable nature of Humanity.

4.3. Egyptian Initiation: Symbolic Analysis of *Canope* (1913)

Debussy was a Rosicrucian. One of the many Rosicrucian degrees¹³ is that of an Egyptian burial ceremony. The degree begins with the telling of the life story of the candidate (representing the soul of a dead Egyptian priest) by the god Thoth (moon). Then sacrifices are made to Horus (sun) and his four sons. After this, the candidate is examined upon his deeds and misdeeds in life and, in the traditional Egyptian fashion, his soul is weighed against that of a feather. Through trial and tribulation, the soul is eventually found worthy of being brought into the eternal realms of bliss with Osiris, rather than reincarnation or destruction (Saturn – the planet that coincides with Huh and Osiris – would not only represent death, but the time-keeper, and the “beyond” of Eternity).

Egyptian burial rites have been studied by mystics, alchemists and symbolists since the Golden Age. The essence of the rite is the preservation of the soul for the afterlife. Such preservation requires removing the parts of the body that hold various “magical” essences, such as the heart, liver, spleen, and reproductive organs. The “magical” parts of a human were usually taken and placed in four *canopic* jars, preserved, and stored with the possessions of the dead so that upon passing the scales of good and evil, the soul could become whole again and join with Atumn-Ra in the blessed eternal life. The four jars represented the four lower elements of creation (fire, earth, air, and water), as did the associated body parts. The soul comprised the fifth element, ether.

According to the *Nouveau Larousse Illustré*, the jars were covered with paintings of Horus’s four sons (Hoffman 2002, 103). However, Manly P. Hall, in *Secret Teachings of*

¹³ A *Degree* is a ceremonial activity intended to teach a moral virtue as well as *initiate* the candidate into a new understanding of life. This specific degree is in the Southern Jurisdiction of the Scottish Rite and referred to as a Rosicrucian degree, even though no literal relationship has been found between the two other than the degree lineage.

All Ages, claims that most jars included Horus upon them, as the son of Isis and Osiris, representing the Sacred Son.

Given that Debussy owned two canopic jars of his own, it is very likely he may have been familiar with the study of the Egyptian Rites, and more so as a symbolist. This knowledge, along with his presence during the growth and height of French Alchemy and Rosicrucian practices, makes it very convincing that *Canope* is not just about the jars themselves, but about the *process* of the last rites of the Egyptian Dead. While some may claim only pitch centricity, such as Richard Hoffman, or “an elaboration of an A♭ major triad,” I argue that the entire piece revolves around four scales with some very distinguished decoration: D Aeolian, the D Egyptian (Byzantinian) scale, and to a lesser extent at the end of the piece C Dorian and C Mixolydian. At the end of this section, the full score is provided for ease of finding the provided information (figure 17a-17c).

The Moon

It is said that the deeds of a mortal’s life are kept in record by Thoth, the deity of the moon, writing and geometry. Appropriately, this piece opens with a gentle modal melody almost entirely kept in the D Aeolian scale. Some consider the B♯ to be of the Dorian scale, however this could also be explained as a simple avoidance of the diminished triad (E-G-B♭). In many chant works, diminished intervals are avoided with the use of *musica ficta*. As discussed in chapter 3, the Aeolian mode is reserved for the Moon. The interruption of this smooth modal melody, with planing triads beneath happens in m. 3, with the entrance of the second staff line on the pitch G, dropping down to a C on beat 4 (triple staff will be discussed later in symbolism of the four worlds of Qabalah). The fifth motion here feels very preparatory for the chromatic motions initiated in m. 4, beat

2. The pitches in this chromatic action begin with a Neapolitan feel, moving to an $A\flat$ major and finally resulting in a $G\flat$ major that falls once again to a D minor statement to return the pitch center to D. A consideration of the pitches in this chromatic action can be found in figure 12.



Figure 12. Pitch Classes of mm. 4-5. The $G\flat$ and $D\flat$ are altered to their enharmonic equivalents ($F\sharp$ and $C\sharp$).

These pitches include all the notes of the D Egyptian (Byzantine) scale, with the exception of the $A\flat$, which will be revisited in m. 24 and explained in further detail later. Included are the Masculine and Feminine Byzantine scales in Figure 13a and 13b. Often, these two scales are used synonymously because of the half-step relationship desired between the pitch center and the surrounding pitches.



Figure 13a. Masculine Egyptian/Byzantine Scale. This might also be considered a doubly harmonic scale on D, or the Masculine Byzantine Scale. If G is the pitch center, then it is the Egyptian Masculine.



Figure 13b. Feminine Egyptian/Byzantine Scale . If the pitch center is D, it is the Byzantine Feminine scale. If Pitch Center is G, it is the Egyptian Feminine.

While there might not be such a standard classification, the justification is made based upon the pentatonic scales, as shown in example 14a and 14b; there are masculine and feminine versions. Here is a hint of things to come, a foreshadowing of the next scale to be used in great detail throughout the piece. Beginning with beat 2 of m. 5, the melody continues, incorporating the lowest staff (and as we will discover later, the lowest symbolic plane of existence). This visitation of the melody is hollow, just like an empty shell of a mortal, or perhaps the canopic jar itself, before the vital organs are thus preserved. The similarity and symbolic nature of the jar and the mortal body is strikingly impressive to the student of Egyptian Alchemy, and the movement of the piece into such “hollow” octaves should be expected. The first motive ends in m. 6, on unison C, preparing for the usual method of returning to the pitch center of any modal scale by ascending.



Figure 14a. Masculine Pentatonic Scale (eastern). Note the major 3 and major 6.



Figure 14b. Feminine Pentatonic Scale (eastern). Note the flat 3 and flat 6.

Mummification

Once the body was set for mummification, after the rites of Thoth had been performed (that included a verbal account of the birth, life, initiation, and death of the dead) the extraction of the four vital humors was ready to begin. In the Scottish Rite, an initiate into the Egyptian Mysteries, representing the soul of a dead mortal, even stands over his body while it is being prepared. In m. 7, a D^7 enters with first introducing the A, giving a slight “5-1” feel, though unsettling due to the C in the middle voice that is quickly replaced with a C^\sharp (once again matching the Egyptian scale set on D), carrying the new motivic line up to an E^\flat , a neighboring E natural, and then back to the tell-tale sign of the Egyptian scale, “flat 2”, which is the E^\flat , and down to the pitch center which is D. The same repeats, with octave C^\sharp s, rising up again this time rising to the F^\sharp , another hint of the Egyptian scale, lifting to the A again before we find a sudden shift in pitch center to G. While this could simply be explained as a new pitch center, or new cell of tones, it can also be interpreted, with some certainty, as a flavorful G Dorian at m.11. Dorian is representative of the Sun. The chief deity taught in Egyptian Alchemical Tradition is

Atumn-Ra, a seeming compound deity of Ra (the sun), and Atumn (the setting sun, and creator), although Osiris is seen as the true father of all. In the preparation of a body for mummification, a rite to Atumn-Ra would be necessary to ensure that the soul would have a place of illumination. However, in an abrupt turn, m. 12 becomes G Mixolydian, symbolic of Death and Time (Saturn is the planet associated with this mode, and Saturn governs time, death, and eternal knowledge). If we continue the “alchemical modes”, next on the list in m. 13 is Jupiter, E \flat Lydian. This passage may also be interpreted with the same chromaticism as found in mm. 4, before settling upon m. 14, where we have quartal and quintal harmony, or possibly a C to F⁷ “dominant” feel, to set up a possible cadential moment at m. 17, though the nature of the cadence at first feels very thin, upon beat 3, G is heard, familiar from the earlier pedals of m. 11 and 12, though now hidden and slightly alien—a perfect complement to a “deceptive” cadence (even though it truly is not a tonal statement, because we have had no basis to set the pitch center upon B \flat , which would provide the true deceptive cadence). In m. 18, A returns as in m. 10, setting up the cadential feel once again, before the motive is repeated, bringing us down to our Egyptian scale, based upon the feminine side of the scale to find equilibrium (to the Alchemist, Equilibrium is inescapable; if there is a male, there is a female). From m. 20 to m. 23, we find the pitch center to be G, with the Egyptian scale continuing the melodic line as at m. 7. However, we have a hint of the Saturn mode Mixolydian hidden “in plain sight”, in the B of the downbeat. Throughout the section previous, we have been trained to hear grace notes as important, and now they become necessary to explain the technique used to synthesize the 24 pitches of the middle-eastern octave. We find repeated use of grace notes one half-step away from the note tied to it, and even in performance hear the

E \flat to E \sharp through passing tones of m. 23, allowing the E \sharp to feel just as in place as the E \flat . Finally, we finish with the Egyptian Scale in the Golden Mean “moment” of the piece at mm. 24 and 25. We have the amazing Egyptian Scale as before, with the addition of the A \flat . While this could be interpreted as the “Blues V” scale, shown in figure 15, it would mean that we would have to accept all occurrences of C \sharp as part of the “Blues VI” scale, shown in figure 16. I argue that the Egyptian scale with the added A \flat and C \sharp – possibly a C \sharp if the accidental is ignored in the scale that jumps staves – at the end of m. 24 (returning in m. 25 as an E \flat with an E \sharp grace note) are an attempt to mimic the 24 pitches between the “Egyptian octave.” This interpretation allows us to find multiple examples of grace note mimicry throughout the piece, and fits the theme of an Egyptian funeral rite. It is fitting that the entire scale show up at the Golden Mean moment of the piece.



Figure 15. Blues V scale. This example includes the interpretation as a C#, rather than C \sharp .



Figure 16. Blues VI scale. This example includes the interpretation as a C \sharp .

The Trinity

This piece is for a single piano, yet holds three staves. While this could have been for ease of composition, it could also be symbolic of the “four worlds”: the material world, the mental world, the dream world, and beyond. We find in mm. 26 that D Aeolian returns, this time *twice as full* as before – full triads in both hands. Once again, the melody’s harmony touches upon the B \natural of the Dorian mode, but replaces it again with a B \flat two chords later. An extended journey through the chromatic movement as before brings us down to a new pitch center, completely foreign and alien to the piece, not part of the Egyptian scale used previously: C Dorian, once again greeting Atumn-Ra. The melodic line of the final four measures includes an E \flat falling to a D, before rising back up to make the second statement of the motive. All throughout, the C – E – G triad is being held in the left hand. After this E \flat , it can be seen that C Mixolydian follows and stays to the conclusion. Notice also that the final note of the melody is an E \natural that, instead of speeding up in triplets as before with the added E \flat , slows into a hesitant and hanging third. One might expect that the initiate must seek “eternity” in the afterlife, it is only

prudent that again the soul visit the wisdom of Saturn, guardian of Time and Eternal Knowledge, represented in the deity Huh (and sometimes Osirus). The uplifting and open sonority of the final chords hint that perhaps our soul, with vital organs protected by Horus, is united in the light with its creator. Finally, the initiate makes their way into the *Beyond*.

Debussy studied symbols. He knew well the Egyptian mythos involved with his personal canopic jars. We must take into consideration the knowledge of students of the ancient mystery schools if we are going to examine and analyze their compositions. As such, keeping in mind the ancient traditions and the representative symbols of the Egyptian Rites, we can find *hidden* meaning and a sound *theory* behind the compositions of the initiated. Through this examination, we discovered the Egyptian Scale throughout *Canope* repeatedly. We also found many examples of the Modes used in a rite, such as the Sun, Moon and Saturn. These Rosicrucian and Alchemical teachings can be found throughout not only the impressionist movement, but even further back to the birth of the Age of Enlightenment. Like the eternal soul represented in this piece, some teachings ‘never, never, never die.’

Piano

Prelude X "Canope"

Claude Debussy (1862-1918)

Très calme et doucement triste

The image displays the first page of the musical score for 'Canope' from Debussy's 'Préludes, Book X'. The score is written for piano and is in 4/4 time with a key signature of one flat (B-flat major). The tempo and mood are indicated as 'Très calme et doucement triste'. The score is divided into three systems. The first system (measures 1-4) features a right-hand part with chords and a left-hand part with a simple bass line. The second system (measures 5-8) includes triplets in the right hand and a sustained chord in the left hand. The third system (measures 9-12) continues with triplets in the right hand and a sustained chord in the left hand. The score concludes with a final chord in the right hand and a sustained chord in the left hand.

Figure 17a. Canope page 1.

The image displays a musical score for three systems, each containing three staves (treble, middle, and bass clefs). The key signature is one flat (B-flat), and the time signature is 3/4. The score is marked with measure numbers 13, 16, and 20 at the beginning of each system. The notation includes various rhythmic values, including eighth and sixteenth notes, and rests. Triplet markings (the number '3') are present above several groups of notes in measures 13, 16, 17, 18, 19, and 20. The bass clef staves feature chordal accompaniment, with some measures showing a 7th chord (indicated by a '7' below the staff) and others showing a 7th chord with a flat (indicated by a '7' and a flat symbol below the staff). The treble clef staves show melodic lines with slurs and triplet markings. The middle clef staves provide harmonic support with chords and some melodic fragments.

Figure 17b. Canope page 2.

The image displays three systems of musical notation for the piece 'Canope' on page 3. The first system, starting at measure 23, features a treble clef with a key signature of one flat and a common time signature. It includes a melodic line with eighth-note patterns and a piano accompaniment with chords and eighth-note figures. The second system, starting at measure 26, shows a treble clef with a key signature of one flat and a common time signature, featuring a series of chords in the right hand and a bass line in the left hand. The third system, starting at measure 30, features a treble clef with a key signature of one flat and a common time signature, showing a melodic line with a triplet of eighth notes and a piano accompaniment with sustained chords. The piece concludes with a double bar line at the end of the third system.

Figure 17c. Canope page 3.

5. CONCLUSIONS

Having explored the realms of both Baroque, Classical and Romantic compositions with the tools to find symbolism in various component parts of music, it would only be more evident if a piece of music that was composed for initiation specifically were to offer some sort of symbolic message through the various modal references and numerological symbols. For this purpose, one such composition is provided: The Entered Apprentice chant 3A by Wallace Moody found in *Appropriate Odes to be used in Masonic Work* (Grand Lodge of Illinois 1915, 5-6). Following this final example of initiatory symbolism will be the concluding remarks of this thesis.

5.1. Analytical Approaches to A Masonic Initiation Piece

The final piece that will be discussed is ‘Masonic Odes – Quartette First Degree No. 3. A’ by Wallace Moody. To begin, the usage of this piece would have been contingent with the circumambulation of the candidate in the Entered Apprentice degree, prior to the obligation of the candidate¹⁴. The lyrics are from Psalms 133, and are of utmost importance to the new candidate of freemasonry in accordance to the unity of the craft and the fellowship of the brethren at large. The piece is only 19 measures long, in common time, and in the key of C. It is set for four part men’s quartette.¹⁵

There is one measure that is left out of the three-measure phrasing – m. 16. This will be approached later. The first phrase ends with the downbeat of m. 2 (see Figure 18.) As shown, the scale degrees of mm. 1-2 hint at a half cadence on beat 2 of m. 2, which could also be felt as a plagal resolution.

5̂ 1̂ 5̂ 3̂ 4̂ 5̂ 6̂ 5̂ 5̂ I V I 2̂ 1̂ 6̂ 1̂ I4 V7 I

Figure 18 Mm. 1-6 Shows chord relationships with traditional roman numeral analysis.

¹⁴ The nature of the ceremonies shall not be explained because of personal obligation to the fraternity, however, ‘circumambulation’ is the ceremonial processing around a room or area – in this case in a clockwise manner. The term ‘obligation’ is used for the oath that binds a mason to the fraternity. This is a sacred obligation between the mason and his God.

¹⁵ The clefs shown are bass and treble, one might imagine that the treble was probably a tenor clef at some point, considering that the majority of the pieces alternate between tenor clef and treble clef, but the range is no different on the staff.

The rhythmic similarity between m. 1 and m. 4 seems to also carry some of the same harmonic function – in this case as a predominant function (preparing the I_4^6). It is possible to now see a clear pattern of tension and release: one measure of “home”, one measure of developing tension, and the final measure releases the tension to a return of the tonic-of-the-moment. One see the same situation play out in mm. 7-9, this time in the relative minor. There is interesting motion in the tenor voice of m. 8 (E-Eb-E-F-E) that creates a diminished quality that will eventually transform into a vii°_5/V in m. 11 (figure 19).

The musical score shows three measures of music. The vocal line (soprano) has the lyrics: "It is like the precious ointment upon the head, that ran down up - on the beard, Ev-en". The piano accompaniment consists of chords in the right hand and a bass line in the left hand. Below the score, the following chord symbols are indicated: Vi, vi°, vi, IV⁶, vi, vi.

Figure 19 Mm. 7-9. Notice the tenor voice movement and creating a diminished quality before returning to minor.

Following the same pattern as before, there is an initial moment of stability – in the case of m. 7 and 10, recitation occurs upon an a-minor triad (vi). As noted, m. 8 functions to create tension and release back into the vi of m.9; m.11, however, has a predominant action (the dominant vii°_5/V), causing more tension, then resolving to $V^{\frac{4}{3}}/V$ and a half cadence in m. 12. This becomes, instead, a possible momentary tonic due to the chant upon the V in m. 13 following a pause (rest). M. 11 repeats in m. 14 with one

crucial difference – the downbeat is I rather than $\text{vii}^{\circ 6}_5/\text{V}$, and then continues to $\text{V}^{\frac{4}{3}}/\text{V}$ (figure 20).

10

— Aaron's beard That went down to the skirts of his gar - ments;

vi $\text{vii}^{\circ 6}_5/\text{V}$ $\text{V}^{\frac{4}{3}}/\text{V}$ I^{\flat}_4 V

Figure 20a Mm. 10-12. The diminished quality returns as in the previous three measures, building tension.

13

As the dew of Hermon, and as the dew that descended upon the moun - tains of Zi - on For

V [I] I^{\flat}_4 [IV] $\text{V}^{\frac{4}{3}}/\text{V}$ [$\text{V}^{\frac{4}{3}}$] I^{\flat}_4 V^7

Figure 20b Mm. 13-15. The diminished quality is removed and replaced with a major triad. The bracketed numerals indicate where an alternate interpretation might be heard because of the elongated G major recitation.

Taking into consideration the possible momentary G stability as tonic – because of the recitation – then the I makes more sense in relation to the V/V as a IV (creating the progression $\text{IV} - \text{V}^{\frac{4}{3}} - [\text{IV}^{\flat}_4] - \text{I}$ in G, which obviously returns to C at the I^{\flat}_4). The passage could also simply be a V, and the interpretation of $\text{V} - \text{I} - \text{V}^7/\text{V} - \text{I}$ in C. The tension of m. 14 does not quite resolve as the preceding passage's created expectation. Instead, it is delayed until m. 16, where $\text{I} - \text{IV}^{\flat}_4$ as the only IV in the key of C – albeit simply an

embellishment of the I – continuing on beat 3 to I. The scale pattern returns leading back to a V (6-5 sus., or possibly a iii⁶), building tension to release in the final three measures as before.

There are two important features of the tension and release grouping. First, that the tension of m. 8 and m. 11 do not release into 9 and 12 respectively, but rather continue the build of tension that is delayed until m. 16 to release on the I – IV₄⁶–I, and second, to build more conclusion the last three measures do not begin with a settling upon the “tonic,” then building tension, but rather the entire three measures act as a release of dominant tension.

Upon examining the rhythm of m. 18, the dotted quarter note eighth figure that is also found in m. 4 (earlier shown as a rhythmic similarity to m. 1), it is possible to see a full circle of tension. This is also emphasized by the perfect authentic cadence from mm. 5-6 and mm. 18-19. Having now found similarities in phrase and harmonic structure, it is possible to approach the lyrics to determine if any words or phrases are treated with the same harmonic or rhythmic vocabulary.

The first approached is in how mm. 1 and 4 share the same rhythmic figure. One sees that “how good” and “togeth-er” are rhythmically treated the same, as well as the harmonic layout of the scale degrees used (5-3-4 and 2-1-6 which can compose V – I – IV easily, a quintal relationship). In a Masonic context, this “5” symbolism might refer to the five points of fellowship, as well as the five elements of creation (Hall 1928, CV-CIX), or the four cardinal virtues partnered with fellowship (prudence, fortitude, temperance, justice and fellowship). Mm.7-12 bring three chant measures that are

harmonically vi, vi and V. While vi might be an appropriate tonal motion as the relative minor, it is also an important component part of the comparable Aeolian mode, which is symbolic of the Moon. The Entered Apprentice is taught of the sun and moon during the initiation. In the Greek tradition of the heavenly spheres, the moon is the lowest of the seven. It is also a symbol of the sacred feminine as well as the element of water (Hall 1928, CV). It is interesting that the minor triad is used not only through the lyrics of anointing but also upon the mortal name “Aaron.” This is most likely a reference to the water element of the Aeolian mode, as well as the lower nature of humanity compared to the heavens. The next chant is upon the V (G major), referencing the “dew of Hermon, and the dew that descended upon the [mountain of Zion].” This place in reference to the “highest hills” would logically be the dominant because of the Masonic symbolism of the places where ancient craftsmen would meet to ensure their safety from the approach of eavesdroppers. This place in the scriptures as a sacred place is also logical for the V since the Roman number for power is V (indeed, *dominus*, the root of *dominant* means *Lord* or *Master*).

Between the chant measures can be found motion from minor to diminished as seen. In m. 8, the tenor line moves by half-step below and above the fifth of the chord creating vi° -vi-IV⁶-vi. This motion could be text painting upon the word “down up-on the beard.” It is interesting that “down” brings an E \flat , “up-“ brings an E, and “-on” brings an F. Mm. 10-12 and mm. 13-15 seem to be of the same harmonic structure with the exception of the chant chords and the downbeats of m. 11 and m. 14. Once again, mountain is given the major quality to possibly show the ‘higher place’ than the “skirts of [Aaron’s] garments.” The tension of all these growing dissonances releases in the last

beat of m. 15 as a unison G lands on I in m. 16, continuing to “The Lord” in a $IV_4^{\hat{4}}-I$ embellishment, returning the ‘scale degree unison’ to the final passage. Mm. 17-19 serve the entire purpose to bring back as much resolution from dominant to tonic as possible, repeatedly. The final phrase “Forever more” is a familiar friend from m. 5 (including the anacrusis from beat 4 of m. 4). Where previously “ $\hat{1}-I_4^{\hat{4}}-V^7-I$ ” in m. 4-6 held “in Unity”, now discovered is “ $I-I_4^{\hat{4}}-V^7-I$ ” in mm. 15-16 as “forever more.” This could be an allusion to *Eternal Unity* or salvation of following the commandments of God; it might also be a reference to the immortality of brotherhood, and reverence to the unity of the fraternity.

The symbols of this piece, in text and in musical significance, can be summarized as those that unite the meanings of “Unity” – through the action of absolute tension release through the perfect authentic cadence; the lower nature of the human condition compared to the heavenly condition – by the use of the vi; and through Masonic numerological relationships – 5 as a symbol of fellowship, foreshadowed in the Entered Apprentice Degree, but not revealed until the Master Mason Degree. Through these symbols and the hint of the modal reference of Aeolian as the sacred feminine – the Moon – the symbols of the preceding chapters return in this piece for their purpose of initiation. In an interesting twist, however, at the “Golden Mean Moment” of the work (m. 12 beat 3 by Fibonacci and m. 14 beat 1 by the π method), are found upon the words “garments” and “mountains”, and share a simple “V” and “I” relationship, respectively. Perhaps there is power and meaning in simplicity.

Masonic Odes- Quartette

First Degree

Wallace Moody

No. 3. A.

Be - hold how good and how plea - sant it is for breth - ren to

dwell to - geth - er in un - i - ty,

It is like the precious ointment upon the head,
that ran down up - on the beard, Ev-en

— Aaron's beard That went down to the skirts of his gar - ments;

© 1915, by Wallace Moody.

Figure 21a. Masonic Ode No. 3 A. page 1.

13
As the dew of Hermon, and as the dew that descended upon the moun - tains of Zi - on For

16
there the lord com - pmand - ed the

17
bless - ing, Ev - en life for - ev - er

Detailed description: The image shows three systems of musical notation for a piano accompaniment. Each system consists of a grand staff with a treble clef on the upper staff and a bass clef on the lower staff. The first system (measures 13-15) features a melody in the treble clef with lyrics: 'As the dew of Hermon, and as the dew that descended upon the moun - tains of Zi - on For'. The second system (measures 16-18) continues the melody with lyrics: 'there the lord com - pmand - ed the'. The third system (measures 17-19) concludes with lyrics: 'bless - ing, Ev - en life for - ev - er'. The music includes various rhythmic values, including eighth and sixteenth notes, and rests. There are also some triplets indicated by a '3' over a group of notes. The piece ends with a double bar line and repeat signs.

Figure 21b. Masonic Ode No. 3 A. page 2.

5.2. Final Remarks

This thesis has attempted to show that not only is music a functional process of spirituality – and thereby mysticism, magic and alchemy – but also that it might hold tremendous amounts of symbolism in such realms of the human unconscious. These symbols, as evidenced in the preceding chapters, can be formulated into a method of their own right that might be used for symbolic exploration of all music.

Through the writings and teachings of the Pythagorean philosophers, into the modern era of philosophical thought, the link between music and spiritual practice was made clear. The thesis then approached alchemy as a true form of spirituality congruent with the purpose of music in spiritual context. Music is useful in the underlying meanings of initiation – the process of development through various stages of understanding and self-awareness. Music also opens the gateway into the world of symbolism through numerology, modal and alchemical correspondence, and the archetypes of Carl Jung's theory of psychology. This thesis revealed many symbols in three separate time periods and composers' works, therefore to affirm that the symbols could indeed be found in a myriad of musical – albeit tonal – genres. Finally, this thesis attempted to validate the findings of the previous chapters in the example of a piece written specifically for initiation in an initiatory society – Freemasonry.

Where the pieces found in chapter four showed varied techniques and compositional growth through the ages of artistry – from the Baroque, to the Classical and Romantic eras of composition – they also showed usage of symbols that might be considered universal. The archetypes found in the Jungian system of psychology are intended to be universal, crossing all times and cultures, and so, too, are these symbols

universal. The symbols can be found even when this system of musical symbolism is applied to a piece written specifically for initiation of candidates into a fraternity of mystical union. The usage of various modal references – if not completely modal passages as those found in the Egyptian Initiation of chapter four – can be linked amongst all the pieces. These hints of a greater numerological – mathematical – system that might govern the senses and creation of art through the Golden Proportion are certainly convincing enough for further study in the area.

Music has, in all times, been the communicator of thought and feelings that works high above the other arts in form, function, and power. In the growing “new age” spiritual paradigm, many contemporary mystics will find this work to be useful to their personal practices. Each symbol presented here was not done so with a finite explanation behind them, but rather with an open-minded and generous care that each individual reader defines *Truth* for themselves. Music cannot fall short of the very human process of initiation and transformation. It should be considered and included at every juncture of the Great Work.

BIBLIOGRAPHY

Appropriate Odes to be used in Masonic Work. 1915. Jacksonville: Most Worshipful

Grand Lodge of the State of Illinois.

Ashmand, J. M. 1822. Ptolemy's Tetrabiblos or Quadripartide: being four books of the

influence of the stars. London, Davis and Dickson.

Atkins, F. 1871. "Masonic Musical Ritual." *The Musical Times and Singing Class*

Circular Vol. 15, No. 345 (Nov. 1, 1871): 283. [http://www.jstor.org/](http://www.jstor.org/stable/3352970)

[stable/3352970](http://www.jstor.org/stable/3352970)

Barbera, André. 1984 "Octave Species." *The Journal of Musicology*, Vol. 3, No. 3

(Summer, 1984): 229-241, <http://www.jstor.org/stable/763813>

Belanger, S. 2006. Archetypal definitions of planets, asteroids, chiron, north node, south

node. Retrieved December 10, 2012 from: [http://www.sheilabelanger.net/](http://www.sheilabelanger.net/astrology/planets.html)

[astrology/planets.html](http://www.sheilabelanger.net/astrology/planets.html)

Booner, Calvin M. 1984 "The Modes of Boethius." *The Journal of Musicology*, Vol. 3,

No. 3 (Summer, 1984): 252-263, <http://www.jstor.org/stable/763815>

Burroughs, J. B. 2004. "Musical archetypes and collective consciousness: Cognitive

distribution and free improvisation." *Critical Studies in Improvisation*. Vol 1. No.

1. pp. 1-15.

Changing Minds. Jung's archetypes. Retrieved December 10, 2012 from:

http://changingminds.org/explanations/identity/jung_archetypes.htm

De Hoyos, Arturo. 2009. *Scottish Rite Ritual Monitor and Guide*. Washington DC:

Supreme Council.

DeWitt, Bill. *Mozart's Requiem: A Labyrinth of Deception*. [http://www.salieri-](http://www.salieri-online.com/mozreq/pg1.php)

[online.com/mozreq/pg1.php](http://www.salieri-online.com/mozreq/pg1.php) (Accessed December 10, 2012).

Godwin, Joscelyn. 1993. *Harmony of the spheres: a sourcebook of the Pythagorean*

tradition in music. Vermont: Inner Traditions International.

Godwin, Joscelyn and Marc Rolland. 1994. *Les Harmonies Du Ciel Et De La Terre: La*

Dimension Spirituelle De La Musique. Bibliothèque De l'Hermétisme (71). Paris,

France: Albin Michel.

Godwin, Joscelyn. 1995. *Harmonies of heaven and earth: mysticism in music from*

antiquity to the avant-garde. Rochester, VT: Inner Traditions International.

Gouk, Penelope. 1999. *Music, Science and Natural Magic in Seventeenth-Century*

England. London: Biddles.

Grand Lodge of Texas A. F. & A. M. 2002. *Monitor of the Lodge*. Waco, TX. Waco

Printing Company.

Hall, Manly P. 1923. *The Lost Keys of Freemasonry*. New York. Jeremy P.

Tarcher/Penguin. <http://www.rgle.org.uk/The%20Lost%20Keys%20of%20>

[Freemasonry.pdf](http://www.rgle.org.uk/The%20Lost%20Keys%20of%20) (online access December 5, 2012).

- Hall, Manly P. 1928. *Secret Teachings of all Ages: an Encyclopedic Outline of Masonic, Hermetic, Qabbalistic and Rosicrucian Symbolical Philosophy*. Los Angeles, CA: Philosophical Research Society. Reprinted 1977.
- Hedesan, Jo. 2009. "The Four Stages of Alchemical Work." *Scribd*.
<http://www.scribd.com/doc/11441835/The-Four-Stages-of-Alchemical-Work>
 (accessed February 2013).
- Herissone, Rebecca. 2000. *Music Theory in Seventeenth-Century England*. New York: Oxford University Press.
- Hill, Cecil, and Roger J. V. Cotte. "Masonic Music." In *Grove Music Online*. Oxford *Music Online*, <http://www.oxfordmusiconline.com> (accessed October 17, 2011).
- Hinn, D. Michelle. 1996. "The Effect of the Major and Minor Mode in Music as a Mood Induction Procedure." M.A. Thesis. Virginia Polytechnic Institute and State University.
- Hoffman, Richard. 2002. "Debussy's Canope as Narrative Form" *College Music Symposium*, Vol. 42, pp. 103-117.
- Holmes, Edward, and Christopher Hogwood (eds.).1991. *The Life of Mozart: including his Correspondence*. London: Folio Society.

- Janes, William H. 1898. *The New Masonic Music Manual containing odes, chants, male quartets, solos and marches, adapted to all the ceremonies of the fraternity, also organ solos, social songs and male quartets, for refreshments and special occasions, selected from the works of the best masters*, 3rd edition. New York, NY: Macoy Publisher and Masonic Supply Co.
- Jankélévitch, Vladimir. 2003. *Music and the Ineffable*. Princeton, NJ: Princeton University Press.
- Judd, Cristle Collins. 2000a. *Tonal Structures in Early Music*. New York, NY: Garland.
- Judd, Cristle Collins. 2000b. *Reading Renaissance Music Theory: Hearing with the Eyes*. New York, NY: Cambridge University Press.
- Jung, C. G. 1959. *Aion: Researches into the phenomenology of the self*. New York, NY: Pantheon Books Inc.
- Jung, C. G. 1967. *Alchemical studies*. Princeton, NJ: Princeton University Press.
- Jung, C. G. 1968 *Psychology and alchemy*. Princeton, NJ: Princeton University Press.
- Jung, C. G. 1976. *The symbolic life: Miscellaneous writings*. Princeton, NJ: Princeton University Press.
- Larsen, Steve, and Leigh VanHandel. 2005. "Measuring Musical Forces." *Music Perception* 23/2: 119-136.
- Laske, Otto E. 1977. *Music Memory and Thought: Explorations in Cognitive Musicology*. Ann Arbor, Michigan: University Microfilms International.

Lburmaster. The unconscious and archetypes by carl jung. [Web log message]. Retrieved from <http://lburmaster.hubpages.com/hub/The-Unconscious-and-Archetypes-by-Carl-Jung> (Accessed 2012, October 1).

Lightfoot, Jewel P. 1958. *Lightfoot's Manual of the Lodge*. Fort Worth, Texas: Grand Lodge of Texas AF&AM.

Lunde, Paul. 2009. *The Book of Codes: Understanding the World of Hidden Messages: an Illustrated Guide to Signs, Symbols, Ciphers, and Secret Languages*. Berkeley, CA: University of California Press.

Masonic Music, The Music of Freemasonry <http://www.masonmusic.org> (accessed on October 17, 2011).

Mastin, Luke. 2010. "Pythagoras – Greek Mathematics – The Story of Mathematics." http://www.storyofmathematics.com/greek_pythagoras.html (accessed September 17, 2012).

Mathiesen, Thomas J., et al. "Greece." In Grove Music Online. Oxford Music Online, <http://www.oxfordmusiconline.com/subscriber/article/grove/music/11694pg1> (accessed September 10, 2012).

Mathiesen, Thomas J. 1999. *Apollo's Lyre: Greek Music and Music Theory in Antiquity and the Middle Ages*. Nebraska: University of Nebraska Press.

Matthews, Al. 2011a. The Baltimore Convention of 1843. Unpublished Manuscript [used with permission by the author].

Matthews, Al. 2011b. An Introduction to Masonic Education and Research. Unpublished Manuscript [used with permission by the author].

Merriam-Webster Incorporated (2012). Merriam-Webster Online Dictionary.

<http://www.merriam-webster.com/dictionary/mysticism> (Accessed on November 10, 2012).

Opsopaus, John. 1999. The Seven Harmonia, <http://oneb.eecs.utk.edu/~mclennan/BA/GEM/GEM-SH.html>. (Accessed on May 23, 2012).

Palisca, Claude V. 1984. "Introductory Notes on the Historiography of the Greek Modes." *The Journal of Musicology*, Vol. 3, No. 3 (Summer, 1984): 221-228, <http://www.jstor.org/stable/763812>.

Pautz, Zane Earnest William. 1957. "Types of Musical Mysticism: A Study of the Technical Means used by Composers of Various Periods to Express Mysticism in Music." Ph.D. diss., University of Wisconsin.

Philips, Stephen M. 2009. "Sacred Geometries and their Scientific Meanings." <http://www.smphillips.8m.com/index.html> (accessed September 17, 2012).

Powers, Harold S. et al. "Mode." In Grove Music Online. Oxford Music Online, <http://www.oxfordmusiconline.com/subscriber/article/grove/music/43718> (accessed September 10, 2012).

Poulin, Pamela L. (1982). "The Basset Clarinet of Anton Stadler." *College Music Symposium*, Vol 22, No. 2, pp. 67-82.

- Pike, Albert. 1871. *Morals and Dogma of the Ancient and Accepted Scottish rite of Freemasonry*. Richmond, VA: L. H. Jenkins [Reprinted 1949.]
- Sadie, Stanley. "Freemasonry and Music." In *The Oxford Companion to Music*, edited by Alison Latham. *Oxford Music Online*, <http://www.oxfordmusiconline.com/> (accessed October 17, 2011).
- Schwindt, Sara Taetle. 2009. *Mozart's Requiem: A Choral Seminar Presentation*. <http://www.joelandsaraschwindt.com/uploads/MozartPresentation.pdf> (Accessed December 10, 2012).
- Stewart, Howard R. 1996. *Huts & Sheds: The Journey of Freemasonry from Western Europe to the Republic of Texas*. Waco, TX: Texas Lodge of Research.
- Stratton, V. N., and Zalanowski, A. H. 1991. The effects of music and cognition on mood. *Psychology of music*. Vol 1991 No. 19, pp. 121-127.
- Tarnas, Richard. "An Introduction to Archetypal Astrological Analysis." <http://www.gaiamind.org/AstroIntro.html> (accessed October 30, 2012).
- Tarnas, Richard. 2009a. Archetypal principles. *Archai: the journal of archetypal cosmology*. Vol 1, No. 1, 23-35.
- Tarnas, Richard. 2009b. The planets. *Archai: the journal of archetypal cosmology*. Vol 1, No. 1, 36-49.
- Vaughan, Piers A. 2005. *Spiritual Alchemy: Introduction*. Unpublished Manuscript.

Zuckerkandl, Victor. 1956. *Sound and Symbol: Music and the External World*. New York, NY: Bollingen Foundation Inc.

Zuckerkandl, Victor. 1959. *The Sense of Music*. Princeton, NJ: Princeton University Press.

Zuckerkandl, Victor. 1973. *Man the Musician: Sound and Symbol: Volume Two*. Princeton, NJ: Princeton University Press.

VITA

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