CHAPTER 11

MUSIC AND THE HERMETIC TRADITION

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Music has had a long and involved relationship with the Hermetic tradition, whether we understand the latter as alchemy alone, or as the whole complex of the occult arts and sciences in the West. The music in question is of two kinds: *musica speculativa* and *musica practica*. Both are rooted in the Pythagorean tradition, which, like the Hermetic one, is part of the wide spectrum of Western esotericism. The two great insights that emerged from the Pythagorean school are, first, that the cosmos is founded on number, and second, that music has an effect on the body and soul. These insights lie at the heart of speculative and practical music, respectively.

To illustrate these two types of music, we can compare two loci classici of the interaction of music with alchemy. The first is in the third- or fourth-century treatise of Pseudo-Zosimos, *On the making of gold*.[1] The author makes the point that both music and alchemy are based on a set of four and its permutations: in music, the four tones of the tetrachord, which generate all the modes and melodies; in alchemy, the four elements of the primordial egg, which generate all substances. He is therefore using speculative music to support an integrated worldview of the Pythagorean type, in which everything rests on the simple numbers.

The second example is Michael Maier's *Atalanta Fugiens* of 1617.[2] This is a collection of three-part canons or "fugues," hence it belongs to the division of practical music. Maier's intention was that through singing and hearing his fugues, the student would come to a better understanding of alchemy. The fugues themselves are symbolic in form, but that does not make them any the less practical, for they are composed to be heard. *Atalanta Fugiens* is an isolated example of music being used as a handmaid to the Hermetic work.

The Pythagorean insight that the cosmos is founded on number has

a corollary, namely, that number has a qualitative element that is perceptible as harmony. Arithmetic considers numbers as pure quantities, whereas music considers them as proportions, comparing them to one another and judging their effect on the ear. Music gives access to number in a particular way, through making it audible. The ear can tell instinctively that some proportions or intervals are harmonious or concordant, others inharmonious or discordant. For example, the proportion of 2 to 3 is harmonious, because two strings of lengths 2 and 3 make the interval of a perfect fifth. But the proportion of 11 to 12 is inharmonious, because it gives an interval that is never used in melody, much less in harmony.

Astrologers from Ptolemy to Johannes Kepler have found in this science of proportions a possible explanation of why certain aspects between signs or planets are effective, and others not.[3] Kepler's method was to imagine the entire zodiacal circle as stretched out in a straight line, like the string of a monochord. In this thought experiment, he stopped the string at the points corresponding to the aspects of opposition, trine, and square, and found that they gave the three "perfect consonances" of octave, fifth, and fourth. Thus, he concluded, both astrology and music rest on the same numerical principles.

Another method of linking music with astrology is to assign the twelve tones or their keys to the twelve signs of the zodiac. There are many different ways of doing this, which I have analyzed elsewhere.[4] One purpose of the process is to judge the aspects or compatibilities of the signs according to whether their tones or keys are harmonious. This is a way of using music to solve a problem that lies at the foundation of astrology, namely, why some aspects are more efficacious than others. Another purpose is to ascertain the astrological qualities of existing pieces of music and thereby to judge their possible effects. For example, if one's theory has determined that the key of E-flat corresponds to Sagittarius and to its ruler, Jupiter, this may account for the character of pieces written in that key.

Kepler's career also illustrates a more lasting effect of the meeting of music with Hermetic ways of thought. His search for the laws of planetary motion was inextricably linked in his mind with finding the harmonies with which God had organized the universe. Forced by Tycho Brahe's observations of the planets to conclude that their orbits were

not circular but elliptical, Kepler found a way to justify this seeming imperfection in the divine order by reading musical harmonies into the planetary motions. The discovery of the cosmic harmony was for Kepler the culmination of his life's quest.[5]

Closely parallel to Kepler's planetary harmony was Isaac Newton's discovery and definition of the spectrum of colors. Here again, it was harmony that confirmed an empirical observation. Newton, or his assistant, divided the colors of the spectrum in proportions equal to those of the diatonic scale, thus coming up with the familiar seven colors, whereas there might well have been more or fewer.[6] Newton's satisfaction at his discovery of the seven-colored spectrum was akin to Kepler's joy at the cosmic harmonies: neither man would have felt like that, had he not been convinced of the Hermetic doctrine that the universe is based on the law of correspondences. To a modern scientist, the musical part of their discoveries is so much packaging to be thrown away; to them, it was of the essence.

Music has played only a minor part in the history of magic. In fact, the whole tradition of ceremonial magic is unmusical to a surprising degree. There are two explanations for this. First, the rare talents that make a magician, or for that matter an alchemist, seldom coincide with a talent for music, either as a composer or performer. Secondly, the ceremonial magician usually works either alone or with a single companion. Before the era of recordings there was no way to provide a musical accompaniment for their rituals, such as religion uses to good effect in its own ceremonies.

There is one striking exception to this absence: the Orphic incantations sung by Marsilio Ficino, whose many skills included that of singing to his own accompaniment on the viola da braccio. Ficino's ceremonies consisted in addressing hymns to the planets, while surrounding himself with objects and substances chosen according to the doctrine of correspondences. His music is lost, and was probably improvised.[7] But he regarded it as an essential part of the ceremony, because of music's effects on the *spiritus*, the subtle link between soul and body. Ficino's music, carried by the air, served to impress his *spiritus* with the signature of the appropriate planet, and thence to imbue his soul with the desired qualities.[8]

Ficino's musical magic had no direct progeny, because even within

his lifetime the pursuit of such neopagan activities became too hazardous. Cornelius Agrippa wrote of the efficacy of tone on the *spiritus* in the second book of his treatise on magic,[9] but none of his prescriptions make any further use of music. However, a case might be made for the sixteenth-century madrigal as partially an outgrowth of Ficino's experiments. What marked the madrigal, as it emerged shortly after 1500, was its attempt to make the music illustrate the words, hence reinforce their emotional effect. This recalls Ficino's use of music to imprint the poetry of his Orphic hymns on the *spiritus*. And since the texts of the madrigals were with one accord erotic, they could be associated with the cult of love that led an underground existence in the epoch of religious warfare, providing on the one hand an escape from a discredited Christianity, and on the other hand acting, after the example of Plato's *Symposium*, as a gateway to the higher degrees of love.[10]

The watershed event that divides the Renaissance from the Baroque epoch in music was the birth of opera around 1600, and here it is safe to say that it would not have occurred as it did without Hermetic influences. Shortly before, in 1589, the celebrations held in Florence for the marriage of Christina of Lorraine and Ferdinando de Medici had included a sort of proto-opera. It included dramatic presentations of the Harmony of the Spheres, as described in Plato's *Republic*, and of the magical song with which Arion charmed the dolphin,[11] thus representing the twin pillars of the Pythagorean tradition: the harmony of the universe and the marvelous power of music. Not by chance did the first real operas, such as Peri's and Caccini's *Eurydice* and Monteverdi's *Orfeo* of 1607, use the myth of the same Orpheus who had inspired Ficino in his planetary incantations, and who was now represented as charming his way to the Underworld with the irresistible power of his song. Those early operas, written for a select audience familiar with Neoplatonic and Hermetic thought, were magical events, designed to draw down beneficial influences on the couples whose marriage they celebrated, on the listeners, and on the state. The same intention was still alive towards the end of the century in the operas of Jean-Baptiste Lully, which were part of the occult apparatus by which Louis XIV, knowingly or not, established his absolute power.[12]

The relationship of architecture to the Hermetic tradition would be another subject, and a richer one. However, we should glance here at

some instances in which the link was established through the mediacy of music. It is a commonplace that all the great schools of architecture—Egyptian, Graeco-Roman, Gothic, Renaissance, and Baroque—have made use of significant numbers in planning their buildings. Some of these numbers have been derived from the numerical equivalents of appropriate words or mottoes, as John James found in the ground plan of Chartres Cathedral.[13] Others reflect musical proportions, as we know from the notebooks of Villard de Honnecourt, an early-thirteenth-century architect.[14] Otto von Simson tested Villard's principles, which had probably come from the Cistercian Order, and found, as he says, that

> the musical ratios occur in some of the most perfect architectural compositions of the thirteenth century. In the southern transept of Lausanne Cathedral (before 1235) the magnificent disposition of the inner wall "conveys an overwhelming experience of harmony" with the 1:2:3 ratio of its horizontal division. The consonance of the fifth is "sounded" in the façades of Paris, Strassburg, and York.[15]

Hans Kayser, the Swiss writer on harmonics, identified a diagram in the same notebooks of Villard as a canon of proportion drawn from the monochord, which gives a more complex and sophisticated series of proportions than the basic consonances named in the quotation above.[16] This, too, he found reflected in Gothic architecture. One might conclude that some of the secrets of the medieval masons were of a musical, or at least a Pythagorean, nature. The acoustics of medieval buildings, which so enhance the effect of unaccompanied plainsong, are sometimes attributed to the existence of harmonious proportions in their architecture. But as so much of this enhancement is subjective, the result of expectations and of a "sacred" atmosphere, it is unlikely to be proven one way or another.

There is no doubt that the eye is satisfied by many of the same proportions as the ear. However, there is the glaring exception of the golden section (the mathematical ø, approximately the ratio of 1 to 1.618). This has always been a favorite proportion of architects and painters, yet in music it is a very insignificant consonance: a minor sixth, and not even in tune. This is perhaps why the architect-theorists of the Italian Renaissance, who were well aware of the idea of using musical proportions in their buildings, did so in such an inconsistent way.[17] There is no

building, as far as one can tell, that is constructed with deliberately musical proportions in its every detail. Certainly the analysis of any Renaissance or Baroque building will yield some musical proportions, but it would be rash to conclude that they were all placed there deliberately. Efforts to prove any theory of the kind through measurement are highly debatable. We have the pseudoscience of pyramidology as a warning of the lengths to which such theories can lead their devotees. The same can be said of Renaissance and Baroque paintings, which are sometimes analyzed with a spider's web of lines joining significant points. The more astounding the conclusions of such analyses, the more likely they are to be nothing but the analyst's fantasy.[18]

The arithmology of poetry seems even more rarely to be musically inspired. The significant numbers that scholars have found in Dante and Spenser, for instance, are all governed by unmusical principles, such as Christian number symbolism or the Kabbalah. On the other hand, we could take the fourteen-line sonnet as an example of harmonic construction of the most perfect kind. The so-called "octave" of the first eight lines, divided into two quatrains, exemplifies the musical interval of an octave (proportion 8:4 or 2:1), while the closing "sestet" of six lines relates to it in the proportion of a perfect fourth (8:6 or 4:3). Moreover, each line is an iambic pentameter of five beats, concluded by a pause or rest of one beat. However much rubato is used in an expressive reading, the underlying meter is triple, like a slow 3/2. This may be somewhat elementary mathematics, but so are the perfect consonances and meters that are the basis of all music. A case such as this illustrates the effectiveness of harmonic proportions when applied to other media.

We turn now to the effects that the Hermetic tradition has had on Western music. Franz Liessem, in his book *Musik und Alchemie*, argues that alchemical symbolism underlies the earliest textbook of polyphony, the *Schola Enchiriadis* of the ninth century.[19] If this were so, then the date of approximately 1150 for the beginning of Latin alchemy would have to be revised. It seems more likely that the Hermetic tradition entered Western music through arithmology, after the invention of mensural notation in the thirteenth century made it possible to incorporate accurate numbers in the rhythms of a piece. No musicologist has yet tried to establish the extent to which this occurred, but isolated and proven instances suggest that it may have been as widespread as the use of arithmology in architecture.

One such instance is Guillaume Dufay's motet, *Nuper rosarum flores*, written for the dedication of Brunelleschi's dome in the Cathedral of Florence (1453). The musical form of the piece is organized according to the proportions of Solomon's Temple, the biblical prototype of all cathedrals.[20] In the same century there are the masses of Jacob Obrecht, *Sub Tuum Presidium* and *Maria Zart*, whose rhythmic structure is based on numbers relating to Marian symbolism.[21] We do not know whether these are just the tip of an iceberg, and whether an analysis of all Obrecht's masses, and those of his contemporaries, would yield similar results. It might well depend on who did the analyzing. As in the example of Carl Jung's famous experiment with astrology, people who believe in something get more confirmation, even from seemingly impartial data, than people who do not.[22]

The music of J. S. Bach is a natural hunting ground for the believers. Bach, without a doubt, used symbolism in his music, some of which was numerical. To give an indisputable example: the "Crucifixus" movement of the *B-minor Mass* is based on thirteen repetitions of a descending chromatic ground bass, combining the falling chromatics that denote sorrow with the baleful number 13. But it takes a peculiar frame of mind to go as far as the Dutch musicologists Kees van Houten and Marinus Kasbergen. After counting up other significant measures in Bach's music, they concluded that the composer had accurately predicted the number of days from his own birth to his death, and encoded the number in his scores.[23] The process of making such a "discovery" may be itself a Hermetic exercise, but like certain claims of the alchemists, it is unlikely to persuade anyone else.

There are many Orphic operas, but there is only one Hermetic one, *The Magic Flute*, which in an appropriately Egyptian setting presents the *separatio* and *conjunctio* of the archetypal principles.[24] Mozart's and Schikaneder's singspiel owes its existence to Freemasonry, which by the late eighteenth century had become the principal shelter of the Hermetic tradition. But there was no successor worthy of the model: nothing to continue a lineage of initiatory operas. How long was it before another musical work appeared that was so clearly within the Hermetic tradition? Richard Wagner's operas can sustain alchemical interpretations, just as they can be made to illustrate Rudolf Steiner's version of cosmic history, or practically any theory one likes to press on them. But Wagner was no Hermeticist. One has to wait for the fin de siècle before

one finds works like Erik Satie's Rose-Cross music, or Alexander Scriabin's orchestral poems, inspired respectively by Josephin Peladan's Rosicrucian movement and by H. P. Blavatsky's Theosophical writings. And these, whatever their charms, are no *Magic Flutes*.

Among the composers of modernism, Arnold Schoenberg was the closest to the Hermetic tradition. Arithmology was his native element, especially in the years before World War One when he composed his *Pierrot Lunaire*, that cycle of thrice-seven poems suffused with numerical ingenuities. Schoenberg was a reader of Swedenborg, or at least of Balzac's Swedenborgian novel *Séraphîta*, which not only inspired the composer's song of that name but also played a part in his invention of the "system of twelve tones, related only to one another." To evoke the sensation of freely floating in space, so vividly described at the end of Balzac's novel, was one reason that Schoenberg cut loose from the moorings of tonality, allowing the twelve tones to create their own gravityless, unified musical space.[25] Then again there was the influence of Kabbalah, as the persecution of the Jews forced Schoenberg to reexamine and reaffirm his own roots with the opera *Moses and Aaron* and other works on Jewish themes. In the late *Kol Nidrei* for speaker, chorus, and orchestra, the Kabbalah is actually named, with its legend of the making of worlds and the hiding of the divine sparks in humanity.

The triumvirate of the Second Viennese School—Schoenberg, Alban Berg, and Anton Webern—shared a familiarity with mysticism and Theosophy, and an obsession with hiding significances in their music.[26] The twelve-tone system itself is an example, for it was never intended to be the focus of the listener's attention, but to act as a unifying force replacing tonality. In other words, twelve-tone or serial music is based on imperceptible structures, just as the *Divine Comedy* and the Gothic cathedrals are. The public can enjoy the work of art while unaware of this secret, which the creator perhaps wishes to share only with God.

Secret structures of another kind have been discovered in Claude Debussy's music, and in Béla Bartók's, in both cases based on the golden section as a determinant of form.[27] Neither composer showed any desire to advertise his method, yet they invite comparison with the Renaissance architects, who used that proportion because they were confident that it would imbue their works with beauty and a sense of harmony.

To display one's Hermeticism on the surface was a different matter, and unfashionable, to say the least, between the excesses of Scriabin

and the New Age that dawned in the 1960s. A solitary exception is the English composer Gustav Holst.[28] He knew several Theosophists, including the astrologer Alan Leo and Blavatsky's secretary G. R. S. Mead. They introduced him to the ideas that inspired his orchestral suite *The Planets*, *The Hymn of Jesus* (based on Mead's translation from the Gnostic *Acts of John*), and the works on Indian themes such as *Three Hymns from the Rig Veda* and *Savitri*. But they never made a real Theosophist of him. Whereas a Hermetic attitude permeates the whole of Schoenberg's, Berg's, and Webern's works, Holst could compose just as happily in abstract forms or on commonplace texts.

This completes the tally of major composers prior to World War II who can be connected in any definite way with the Hermetic tradition. It needs now to be complemented by those Hermeticists in whose careers practical music has played a part.

Among the Rosicrucians of the early seventeenth century, Simon Studion, Robert Fludd, and Michael Maier were all versed in practical music, as Renaissance gentlemen were supposed to be. Studion was able to compose an effective six-part motet on an alchemical text.[29] Fludd, besides his work on the Harmony of the Spheres that is one of the greatest monuments of speculative music, wrote a large practical textbook on composition and instruments,[30] and composed some light pieces in the style of his time. Maier, the most gifted composer of the three, has already been mentioned, together with his *Atalanta Fugiens*.

Athanasius Kircher was another Christian Hermeticist, whose *Musurgia Universalis* (1650) covers both the speculative and practical sides. The book itself is Hermetic in form, rising up the Great Chain of Being from earthly music to the Harmony of the Spheres, the angelic choirs, and finally to the music of God the Divine Conductor.

After Kircher, such things went very much out of fashion. The eighteenth century was a time in which those who had both Hermetic and musical interests kept them severely apart. A prime example is Thomas Britton, the London small-coal merchant who held concerts in the loft above his store, played host to Handel, and virtually invented the institution of the public concert. Besides his coal business and his concerts, Britton had a third and secret life, centering around a fine occult library and a well-appointed apparatus for the conjuring of spirits: candles, pentacles, an inscribed table, and magic crystals.[31]

The same separation occurs in the case of three violinists of the end

of the eighteenth century. First is the Comte de Saint-Germain, who was for a time a professional violinist and composed sonatas and an opera.[32] Second, there is Louis-Claude de Saint-Martin, who was a competent amateur player. The "Unknown Philosopher" does have some important passages in his works on the principles and effects of music, but if he had the means to put them into practice, he never seems to have done so.[33] The third is another professional, François-Hippolyte Barthélémon, who was deeply involved in the Swedenborgian movement. None of these made the slightest difference to the music of their time.

During the heyday of occultism, a century later, there were again a number of doubly gifted figures. Madame Blavatsky herself was a passable musician, according to those who heard her play the piano in her New York apartment. We may or may not believe that she had performed in Paris in a piano recital with Clara Schumann and directed the women's chorus of the king of Serbia.[34] Blavatsky's archrival, the English medium Emma Hardinge Britten, was also a pianist and worked for a time as a demonstrator in Erard's piano studio in Paris.[35] She played music that was dictated to her by spirits, but never wrote it down. Peter Davidson, another rival of Blavatsky who ran the "Hermetic Brotherhood of Luxor," was a violin builder and author of a standard textbook on the instrument. Yet where is music in the teachings of these occultists? It plays virtually no part.

The case is otherwise with Fabre d'Olivet, perhaps the most influential figure of the Hermetic revival around 1800. Before beginning the work for which he is best known—explaining the *Golden Verses of Pythagoras*, unveiling the Hebrew tongue, and writing the secret and sacred history of the world—Fabre d'Olivet tried to make his reputation as a composer.[36] What most distinguished his compositions was his use of a classical Greek mode, with the intention of recreating the marvelous effects claimed for ancient music. Only a want of critical support prevented him from pursuing this Orphic ambition.

Another prominent figure of the French Hermetic tradition was Saint-Yves d'Alveydre, who found in musical proportions a key to the alphabets, astrology, and wisdom of antiquity (expounded in his *Archéomètre*), and a basis for the arts and sciences of the future.[37] Saint-Yves's follower, the architect Charles Gougy, put these into practice, demonstrating how every proportion of a building, and even of its furnishings, could be made to accord with the Archeometric system. Saint-Yves, who

was by all accounts a fine pianist and organist, and could compose in a fair imitation of the style of Liszt, also wrote about two hundred short piano pieces to illustrate his system: the *Archéomètre Musical.* This was the most ambitious project of Hermetic composition since *Atalanta Fugiens*, with which it shares a unique atmosphere and an undeniable power over the soul.

These same qualities may well be claimed for the music of another philosopher of universal scope, George Ivanovich Gurdjieff. In his Institute for the Harmonious Development of Man, Gurdjieff taught a Sufi-derived system of movement, accompanied by modal melodies and simple chord-progressions. He played them on the piano or harmonium, then his pupil, the professional musician Thomas de Hartmann, adapted them for the piano and recorded them in the form still used in the Gurdjieff Work. At about the same time, Rudolf Steiner was also teaching a system of body movement aimed at spiritual development, calling it Eurhythmy. This was meant to be a "visible music," to be used on its own or accompanied by music or readings. Steiner's Anthroposophical movement is one place where the Pythagorean vision of music as a molder of body and soul still holds good.

As we conclude this survey, it has become clear that something has been missed. Music has not worked with the Hermetic tradition in any very fruitful or consistent way, as, for example, literature has. Music and Hermeticism resemble two cousins who are not particularly fond of each other, but whose family connections force them occasionally to meet. Each one is sufficient to itself; neither has any real need of the other.

There is a lesson in this. Music is a world of its own, with its own laws founded in number and physical phenomena, which it miraculously transmutes into human feelings. It has an exoteric side, which we know through the everyday experiences of recordings, concerts, and music making. This satisfies most people's needs, just as churches satisfy most religious people. As in religions, there is also an esotericism in music. One aspect of it is the science of speculative music, which searches out the principles and laws underlying both practical music and its reflections in the cosmos. This is comparable to the hermeneutics that seeks for deeper meanings beneath the surface of scripture. It belongs to the path of knowledge, to the philosopher or "lover of wisdom" whose greatest desire is to know and to understand.

The other aspect of musical esotericism is the experiential one,

driven by the power of practical music over body and soul. The levels of musical experience extend to degrees of mysticism and crystalline perception that are indescribable in words. Music, in short, contains all the requisites for a path of spiritual development. It offers transformative experiences for the body, the emotions, the intellect, and the soul, as surely as the Hermetic tradition does. The processes are parallel, the ultimate goal probably the same, but the methods are entirely different. That is why music and the Hermetic tradition can happily coexist, but will never become one.

Notes

1. See Otto Gombosi, "Studien zur Tonartenlehre des frühen Mittelalters III," *Acta Musicologica* 12 (1940): 39; Egon Wellesz, "The Survival of Greek Musical Theory," in *A History of Byzantine Music and Hymnography* (Oxford, 1961), 72–77. On music and alchemy in general, by far the best study is Christoph Meinel, "Alchemie und Musik," in *Die Alchemie in der europäischen Kultur- und Wissenschafts-geschichte*, ed. C. Meinel (Wiesbaden, 1986), 201–27.

2. Edited, with a recording, by J. Godwin in M. Maier, *Atalanta Fugiens* (Grand Rapids, 1989).

3. For a study of interval-aspect systems, see J. Godwin, *Harmonies of Heaven and Earth* (London, 1987), 148–55.

4. Tone-zodiacs are treated in Godwin, *Harmonies*, 153–67.

5. On Kepler's musical astronomy, see Bruce Stephenson, *The Music of the Heavens* (Princeton, 1993).

6. See Isaac Newton, *Opticks* (London, 1730), bk. 1, pt. 2, prop. 6, prob. 2.

7. See Angela Voss, "The Renaissance Musician: Speculations on the Performing Style of Marsilio Ficino," *Temenos* 11 (1990): 31–52.

8. See D. P. Walker, "Ficino's *spiritus* and Music," *Annales Musicologiques* 1 (1953), 131–50; reprinted in D. P. Walker, *Music, Spirit and Language in the Renaissance*, ed. P. Gouk (London, 1985).

9. Henry Cornelius Agrippa, *De Occulta Philosophia Libri Tres* (Antwerp, 1533), bk. 2, chaps. 24–25.

10. On this current, see J. Godwin, "Opera and the Amorous Initiation," *Temenos* 12 (1991): 129–40.

11. See D. P. Walker, ed., *Musique des intermèdes de La Pellegrina* (Paris, 1963).

12. See René Alleau, *Guide de Versailles mystérieux* (Paris, 1966).

13. See John James, *Chartres: The Masons Who Built a Legend* (London, 1982), 108, where the numerical equivalents of Marian mottoes are shown to dictate the dimensions of Chartres Cathedral.

14. See Otto von Simson, *The Gothic Cathedral* (New York, 1962), 199.

15. Ibid., 199–200.

16. See Hans Kayser, *Ein harmonikaler Teilungs-Kanon* (Zürich, 1946).

17. See G. L. Hersey, *Pythagorean Palaces: Magic and Architecture in the Italian Renaissance* (Ithaca, 1976).

18. An example is the use made of Poussin's *Les Bergers d"Arcadie* to prove various theories about Rennes-le-Château. See Henry Lincoln, *The Holy Place* (New York, 1991), 52–64.

19. See F. Liessem, *Musik und Alchemie* (Tutzing, 1969).

20. See Craig Wright, "Dufay's *Nuper rosarum flores*, King Solomon's Temple, and the Veneration of the Virgin," *Journal of the American Musicological Society* 47 (1994): 395–441.

21. See the extensive analyses (in English) by Marius Van Crevel, in his editions of *Missa Sub Tuum Presidium* (Amsterdam, 1959) and *Missa Maria Zart* (Amsterdam, 1964).

22. This experiment is described in C. G. Jung, "Synchronicity: An Acausal Connecting Principle," in *The Collected Works*, vol. 8: *The Structure and Dynamics of the Psyche* (Princeton, 1960).

23. K. van Houten and M. Kasbergen, *Bach en het getal* (Zutphen, 1985), cited in Ruth Tatlow, *Bach and the Riddle of the Number Alphabet* (Cambridge, 1991), 1 n.

24. See J. Godwin, "Layers of Meaning in *The Magic Flute*," *Musical Quarterly* 65 (1979): 471–92.

25. See Dore Ashton, *A Fable of Modern Art* (London, 1980), 99.

26. See Wouter Hanegraaff, "Esoterie en muziek: Aan de hand van Schoenberg en Webern," *Mens en Melodie* 45 (1990): 194–201; idem, "De Gnosis van Arnold Schoenberg," *Vooys* 7 (1988): 28–37.

27. See Roy Howat, *Debussy in Proportion: A Musical Analysis* (Cambridge, 1983); Erno Lendvai, *Bela Bartók: An Analysis of his Music* (London, 1971).

28. See Raymond Head, "Holst—Astrology and Modernism in 'The Planets'," *Tempo* 187 (December 1993): 15–22.

29. *Lilia Nympham colit* (1604). See Adam McLean, "A Piece of 'Rosicrucian' Music Restored," *Hermetic Journal* 42 (1988): 3.

30. Edited by Todd Barton as "Robert Fludd's Temple of Music: A Description and Commentary" (M.A. diss., University of Oregon, 1978).

31. See Ron Heisler, "Introduction to the Hermetic Adepti," *Hermetic Journal* 35 (1987): 34–41.

32. See Manly Palmer Hall, ed., *The Music of the Comte de St. Germain* (Los Angeles, 1981). Unfortunately, this edition gives only the basso continuo line of St.-Germain's trio sonatas.

33. On Saint-Martin and music, see J. Godwin, *Music and the Occult: French Musical Philosophies, 1750–1950* (Rochester, N.Y., 1995), a translation of *L"ésotérisme musical en France, 1750–1950* (Paris, 1991), chapter 1.

34. See the evaluation of these stories in Jean Overton Fuller, *Blavatsky and Her Teachers* (London, 1988), 19.

35. *Autobiography of Emma Hardinge Britten* (Manchester, 1900), 6.

36. On Fabre d'Olivet and music, see Godwin, *Music and the Occult*, chap. 4; also idem, introduction to Fabre d'Olivet, *Music Explained as Science and Art,* trans. J. Godwin (Rochester, Vt., 1989).

37. On Saint-Yves d'Alveydre and music, see Godwin, *Music and the Occult*, chap. 8.