

The Music of the Spheres: Marsilio Ficino and Renaissance *harmonia*

Angela Voss

Most people are familiar with the exquisite painting by Botticelli known as the *Primavera*. But perhaps it is not so widely known that the programme of its enigmatic symbolism was inspired by the Neoplatonic notion of the harmony of creation, reflected in the correspondences of the mythological characters to both the eight planetary spheres and the eight tones of the musical octave.¹ It is probably even less appreciated that Botticelli's visual metaphor for the harmony of the spheres was inspired by the work of one man, Marsilio Ficino of Florence (1433-99), whose desire to unite heaven and earth in the soul of the human being found its precedent in the writings of the Platonic tradition. In restoring 'the divine Plato' to Renaissance Florence Ficino set out to 'redeem holy religion' from the 'abominable ignorance' of secular philosophy.²

My intention in this paper is to illustrate how music theory and performance became part of a programme of spiritual development stemming directly from a symbolic understanding of the cosmos which transcended, and yet embraced, all quantitative modes of thinking. Such a mode of 'knowing' was conveyed by Ficino in the Latin word *notio* (from which our word 'notion' is derived) in the course of his translation of the Neoplatonist Iamblichus' treatise on divination, *De mysteriis*. Iamblichus asserts:

'Contact with divinity is not knowledge. For knowledge is in a certain respect separated from its object by otherness. But prior to knowledge - as one thing knows another - is the uniform connection with divinity, which is suspended from the gods, and is spontaneous and inseparable from them.'³

In Iamblichus' explanation of unitive thought Ficino recognised the ground of both philosophical speculation and religious piety, without which 'knowledge' becomes dissociated from the primary reality of the world and thus can be of little meaning. I believe Ficino's articulation of this insight to be the creative impulse behind the immense flowering of

Bust of Marsilio Ficino by Sandrea di Piero Ferrucci (1522), Santa Maria del Fiore, Florence.



intellect in the Italian high Renaissance, inspiring art forms which arose from an intensely erotic relationship between the individual soul and the beauty of creation. As Ficino himself exclaimed: 'This age, like a golden age, has brought back to light those liberal disciplines that were practically extinguished; grammar, poetry, oratory, painting, sculpture, architecture, music, and the ancient singing of songs to the Orphic lyre. And all this in Florence.'⁵

The founder of the Platonic Academy, Ficino both translated into Latin for the first time the complete works of Plato, Plotinus and others, and combined his vocation as a Christian priest with active work as an astrologer, herbalist, magician and musician. Philosophically, his life-long project was to bring together what he called 'faith' and 'reason' by marrying Christianity and Platonism. He also translated Zoroaster, Hermes Trismegistus, Orpheus, the Chaldaean Oracles, Iamblichus, Synesius and Proclus and read Al-Kindi, the *Picatrix*, the Arabic astrologers, Albertus Magnus and Roger Bacon. Out of these diverse sources emerged his own system of natural magic, centered on the combination of astrology and music, whose efficacy depended on more than theoretical knowledge and technical expertise. This meant, in practical terms, that astrology, talismanic magic, herbal medicine and music-making found their place as dynamic expressions of both deep philosophical inquiry and intuitive inspiration, combined with extensive theoretical knowledge.

In looking more closely at Ficinian music therapy, I want to emphasise two further vital ingredients, which we find continually emphasised in his practical writings. These are the *desire* and *imagination* of the human being, which, when focused on images such as music, stars, or talismans, somehow facilitate an interplay with the cosmos, and allow the qualities of a particular moment in time to be seized and recognised. This very process may effect a change in being. When we fashion images, Ficino says, 'Our spirit, if it has been intent upon the work and upon the stars through imagination and emotion, is joined together with the very spirit of the world and with the rays of the stars through which the world-spirit acts'.⁵

It is precisely this subjective element which distinguishes the Renaissance magus from the medieval theorist, for static hierarchical schemes and correspondences between planets and music are transformed into dynamic energies at work throughout creation

energies which can be harnessed and transfused for the harmonising of individual souls. Following Plotinus, Ficino emphasises the necessity of focusing the emotion in an act which depends on both intuition and expertise in order to expand consciousness: 'Whoever prays to a star in an opportune and skilled way projects his spirit into the manifest and occult rays of the star, everywhere diffused and life-giving; from these he may claim for himself vital stellar gifts.'⁶

In the Platonic/Pythagorean tradition, music and the stars are inextricably linked as audible and visible images of an invisible dimension of existence, whose intellectual perception is made possible through the senses of hearing and sight. The foundations of the musical cosmos are established by Plato in the creation myth of his *Timaeus*, which itself maintains a vital connection to Egyptian, Chaldaean and other ancient traditions. In this dialogue, Plato sets up a model for a three-fold musical cosmos where the movements of the spheres, the passions of the human soul and the audible sounds of music are all expressions of a divine intelligence manifesting through the various dimensions of creation.⁷ Such a tripartite division was to be differentiated by the fifth century A.D. theorist Boethius as *musica mundana*, *musica humana* and *musica instrumentalis*,⁸ and it was commonplace for music theorists to work out elaborate systems of correspondences between astronomical distances and musical intervals, between the nature of musical patterns and emotional states, between planetary characteristics and audible sound. The key, in this tradition, to the ordering of the cosmos, whether astronomically or musically, is of course number - a discovery which was transmitted to Western thinkers by Pythagoras. Indeed for the Platonists number determines all things in nature and their concrete manifestation, together with all rhythms and cycles of life. Number revealed by the heavenly bodies unfolds as Time, and as the human soul was seen to be mirrored in the order of the heavens, divination, or aligning oneself to the gods, required the appropriate ritual at a precise time. Iamblichus tells us that the numbers governing nature *are* the outflowing energies of the gods, and if we wish to assimilate ourselves to them, we must use their language - that is, align ourselves with the harmonies underlying the cosmos.⁹ According to this view merely humanly contrived numerical systems, discursive conceptions of number, numerological theories, cannot reproduce an *experience* of unity which will give rise to true knowledge of first principles.

In the *Timaeus*, we learn that the Demiurge created a substance called the world-soul and inserted it into the centre of the world-body.¹⁰ He then divided up this soul-stuff according to the ratios of the three consonant musical intervals, that is the octave, which resonates in the proportion of 2:1, the perfect fifth, 3:2 and the perfect fourth, 4:3, continuing, by further division, to create the intervallic steps of the Pythagorean scale. The soul was cut into two parts which were bent around each other, forming the circles of the Same and the Different: the Same containing the unmoving sphere of the fixed stars, the Different containing the moving instruments of Time, or the planets. The Different was then divided into narrower strips which were arranged according to the geometrical progressions of 2 and 3: 1 2 4 8 and 1 3 9 27. Permeating the whole cosmos, the soul connected the physical world with the eternal, being 'interfused everywhere from the centre to the circumference of heaven' and partaking of 'reason and harmony'.¹¹

The human soul, also partaking directly of the *anima mundi*, must therefore be regulated according to the same proportions. But due to the passions of the body, the soul on entering it became distorted and stirred up - only the correct kind of education could restore harmonious equilibrium.¹² This education would induce a recognition of the soul's congruence with the cosmos through the audible harmonic framework of the musical scale, for as we have seen, the proportions in the world-soul could be reproduced in musical sound. The numbers one to four (the *tetraktys*), thus not only form the framework for all musical scales, but also embody this dynamic process of embodiment in the fourfold movement of geometry from point to line to plane to solid; from the unity comes the duality of opposition, the triad of perfect equilibrium and the quaternity of material existence. Each stage both limits and contains the one following, and the initiate is warned in the Chaldaean Oracles 'do not deepen the plane'.¹³ That is, extend towards the material world from the perfect condition of the triad, but do not lose your limiting power by letting go of it and becoming lost in the quaternity, or chaos of matter. This can be understood musically as the imperative of maintaining the perfect intervals as defining structures. In listening to geometry in sound, the perfect intervals set a framework or limit on unlimited sound, and since the specific arrangement of sizes of tones and semitones within this framework mirror the exact astronomical relationships of the planets, the very fabric of creation is brought to the

ear and, in Platonic terms, evokes a memory of the harmonies once heard with the ears of the mind.

From this essential premise, the schemes attributing planets to actual pitches and astronomical distances to musical intervals abounded. In the Myth of Er in the *Republic*, Plato suggests that sirens positioned on the rims of the planetary orbits each sound a pitch, making up a musical scale, much like a Greek lyre projected into the heavens.¹⁴ In another interpretation, found in Cicero's 'Dream of Scipio', the planets produce different tones according to their various speeds of revolution. We are told that 'the high and low tones blended together produce different harmonies' and that 'gifted men, imitating this harmony on stringed instruments and in singing, have gained for themselves a return to this region, as have those of exceptional abilities who have studied divine matters even in earthly life'.¹⁵

Exactly how to imitate the music of the spheres thus became the question raised by music theorists, and the science of harmonics, or the study of mathematical properties of musical ratios, was considered to be the first step. It is very difficult to know how much this highly speculative procedure, considered by Plato to be the highest form of knowledge, influenced the practical music-making of classical times. We are certainly better informed about the connection between *musica humana* and *musica instrumentalis*, for central to ancient Greek musical writings is the concept of ethos, or subtle ethical effects produced in the human psyche by the use of different modes or 'set' combinations of tone-patterns. For example, the Phrygian mode moved men to anger, the Lydian soothed them, the Dorian induced gravity and temperance - each quality being reflected in the character of particular regions. By medieval times the ancient Greek modes had been replaced by the eight Church modes, but this did not interrupt the association of subtle ethical effects by theorists. One twelfth century writer notes that 'the modes have individual qualities of sound, differing from each other, so that they prompt spontaneous recognition by an attentive musician or even by a practised singer'.¹⁶ It is to our loss that the music we hear today is limited to only two types of mode - the major and minor.

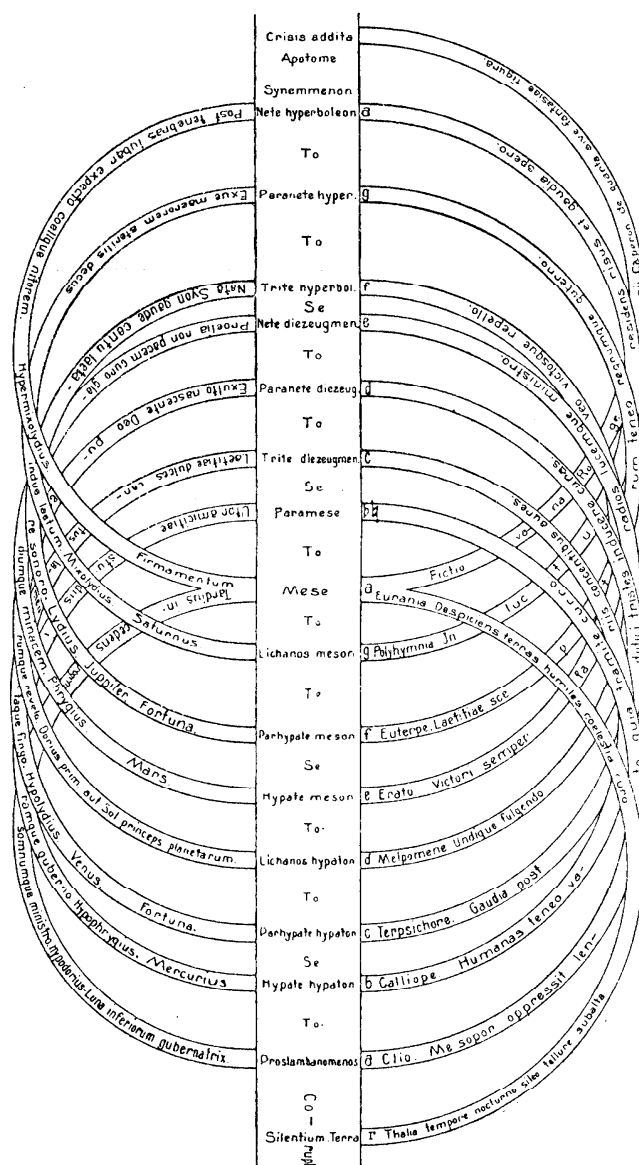
But what of the connection between ethics and cosmology? Ethical powers were attributed to systems of pitch, while planets were generally associated with single pitches. Thus in the writings of most classical theorists, it is difficult to see how an effective form of *musica instrumentalis* could influence the human soul through direct imitation of

cosmic harmony, despite the model transmitted by Plato. Generally speaking, celestial phenomena were made to fit a preconceived notion of musical order, rather than the phenomena themselves being asked to reveal their order as principles of intelligence. Although the Middle Ages produced some great original thinkers in this field, such as John Scotus Eriugena in the ninth century, and indeed the influential Islamic school of musical and astrological therapy,¹⁷ it was only in the fifteenth century that the West began to explore the practical means by which the harmonic relationships in the cosmos could be expressed through music, not by literally reproducing astronomical measurement in sound, but by symbolically evoking a unifying principle at work in the manifest and unmanifest worlds. With the music theorists Georgio Anselmi and Bartolomé (Ramos de Pareja), we see the seeds being sown for a revisioning of cosmic music.

Anselmi of Parma, writing in 1434, explicitly rejects the literal Aristotelian notion prevalent in the preceding centuries that the heavenly bodies could make no sound in their movements, and envisions the planets not tied to individual tones but each singing its own song in counterpoint with the others.¹⁸ Like Ficino, Anselmi was an astrologer, magician and physician, and although his work on music does not give practical advice on human imitation of heavenly harmonies, his cosmos is liberated from fixed schemes as the planetary cycles participate in a great cosmic symphony orchestrated by the Blessed Spirits. He also derived an eight-octave planetary scale from the Moon to the Fixed Stars from the periods of the planets' rotation around the Earth, breaking the bounds of contemporary musical practice (all music lay within a three-octave limit).¹⁹

It is, however, only with his younger Spanish contemporary, Ramos de Pareja, that we find the beginnings of esoteric philosophy applied to music in the operative sense. In Ramos' *Musica practica* of 1482, this is achieved through the original move of attributing the Church modes to the planets, and so connecting ethos to planet through practical music. Thus the Dorian mode, from D to D, relates to the Sun and has the effect of 'dispelling sleep', or the Lydian from F to F relates to Jupiter and 'always denotes joy'. The eighth mode, or Hypermixolydian from A to A, epitomises the starry heavens, 'an innate beauty and loveliness, free from all qualities and suitable for every use'.²⁰ Ramos' planet-mode

Figure 1. Ramos de Pareja's astronomical-musical analogies from his *Musica practica*, 1482, ed. J. Wolf in *Publikationen der Internationalen Musikgesellschaft*, Beihefte II (Leipzig 1901).



pairings appear to be without precedent, although he may have been influenced by Arabic traditions in his native Spain. Most importantly, they reveal a fundamental shift in perspective, from 'rational' astronomical attributions of pitches to planets based on distances or speeds, to the realm of the symbolic correspondence of active imagination. Such heavenly harmonies must now derive from intelligences informed by an ensouled cosmos, and Ramos also matches the nine Muses to each mode and planet. In other words, the means of effecting a connection between heaven and earth is a magical one - in a universe of operative affinities and correspondences modes can be seen as possessing occult properties which bring man into relationship with the stars through sympathetic resonance. *Musica practica* is also revolutionary in that Ramos revises the standard Pythagorean tuning system, which was proving increasingly restrictive for practising musicians, combining perfect fourths and fifths with consonant thirds and sixths, which in fact lays the foundation for a system of equal temperament such as we know today. Again for the first time, he is concerned with the demands of practising musicians, not speculating theorists, and in suggesting a possible evocation of planetary meaning through the right use of mode he opens the doors wide for music to be used in a magical context. Ramos illustrates his analogies (see figure 1) with a complex image of spirals which recall the planets in their spheres and which is curiously reminiscent of Ficino's description of sound as series of spirals in his Commentary on the Timaeus. This oroboros image is of course a traditional alchemical one, and suggests a hidden dimension of spiritual unity beyond the apparent intellectual game of analogy.

Inevitably, the next step toward a fully-operative musical magic was there to be taken, and seven years after Ramos' treatise, Ficino published his own manifesto for astrological music as a therapy in his *Liber de vita*, the *Book of Life*. Although conceived as a commentary on Plotinus, chiefly to give it philosophical respectability, this work clearly demonstrates Ficino's fascination with the spiritual dimensions of ritual magic and with the potential of astrology as a liberating approach to self-understanding. Having been born with Saturn on the ascendant in Aquarius, Ficino knew only too well the limitations of a melancholy temperament, and the beneficial effects he himself experienced when

playing his lyre and singing led him to formulate a therapeutic system in which music was played in accordance with an individual's horoscope. Ficino gave an account of his horoscope in his letter to Martin Preninger. He was born on 19th October 1433, at 21 hours (that is, 21 hours after sunset the previous day): 'At that time almost half of Aquarius was rising, together with Pisces, I think. Saturn in Aquarius was conjunct the Eastern angle, Mars in the same [sign], in the prison of the twelfth [house], the Sun in Scorpio, together with Mercury in the ninth house, the Moon in Capricorn: Jupiter in Leo in the seventh. Venus in the same [house] in Virgo, Fortune in Aries'. Mars was in fact in Capricorn, and Ficino's error may have been due to inaccurate ephemerides. Ficino identified himself with Orpheus, who not only tamed wild beasts with his song, but also brought back Eurydice from the underworld. At least one of his friends, the poet Poliziano, associated this restoration of the feminine with the 'bringing to light' of esoteric Platonic wisdom.²¹

The third part of the *Book of Life* is entitled 'How to arrange your life in accordance with the heavens', and concludes Ficino's project to enrich and vitalise the dissociated life of a scholar. In chapter twenty-one entitled 'The power of words and song for capturing celestial benefits', Ficino suggests that the power of emotionally-charged spoken (or sung) words may intensify the effect of an image, as the Arabs and Egyptians believed: 'they hold that certain words pronounced with a quite strong emotion have great force to aim the effect of images precisely where the emotions and words are directed.'²³ For this process, it is probable that Ficino used as texts the Hymns of Orpheus which he himself had translated from the Greek, consisting of epithets to various deities. Indeed, his fellow hermeticist Pico della Mirandola affirms that 'In natural magic, nothing is more efficacious than the Hymns of Orpheus, especially if the correct music, intention of the mind, and all the other circumstances known to the wise are applied.'²⁴ Combined with these hymns, Ficino composed or improvised a kind of musical accompaniment which appears to draw on the association of modes with stars suggested by Ramos. He writes that:

'tones first chosen by the rule of the stars and then combined according to the congruity of these stars with each other make a sort of common form, and in it a celestial power arises. It is indeed very difficult to judge exactly what combinations of tones especially accord with what sorts of constellations and aspects. But we can

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attain this, partly through our own efforts, partly by some divine chance'.²⁵

That is, the confluence of the human and divine, or we might say conscious and unconscious, dimensions may give rise to a creativity which is in essence divinatory as it surrenders to a transpersonal law. This is the 'divine madness' of the poet, lover, priest and prophet, and we have one eye-witness account of Ficino himself in the throes of poetic frenzy: 'his eyes burn, he leaps to his feet, and he discovers music which he never learnt by rote'.²⁶

Ficino goes further than Ramos in implying the use of particular modes for particular types of people, and gives us three 'rules for composition' which require a detailed knowledge of Boethius' three musics, expressed here in terms of astrology, psychology and modal ethos:

'The first rule is to inquire diligently what powers in itself or what effects from itself a given star, constellation or aspect has - what do they remove, what do they bring? - and to insert these into the meaning of our words, so as to detest what they remove and approve what they bring. The second rule is to take note of what special star rules what place or person and then to observe what sorts of tones and songs these regions and persons generally use, so that you may supply similar ones, together with the meaning I have just mentioned, to the words which you are trying to expose to the same stars. Thirdly, observe the daily positions and aspects of the stars and discover to what principal speeches, songs, motions, dances, moral behaviour, and actions most people are usually incited by these, so that you may imitate such things as far as possible in your song, which aims to please the particular part of heaven that resembles them and to catch a similar influx'.²⁷

The 'power, timeliness and intention'²⁸ of such a song, says Ficino, will provoke both singer and audience to imitate the qualities it itself is imitating through its action on the airy spirit, which connects man's spirit to the soul of the world. The music-spirit is conceived by Ficino to be like a living animal, composed of warm air, 'still breathing and somehow living'.²⁹ It carries both emotion and meaning, and its

influence will depend in part on its congruence with the heavens and in part with the 'disposition of the imagination',³⁰ of the singer - that is, on a synchronicity between external and internal dimensions of experience. The singer must be a finely-tuned instrument whose spirit has been purified and strengthened through assimilating the properties of the Sun, for such 'vital and animal power',³¹ will readily attract the music spirit - particularly if the ritual is also conducted at a suitable astrologically elected hour. The three essential requirements for the invocation of such a numinous energy are therefore the vital, solar power of the singer's own spirit, the propitious moment, and the singer's *intention*, which unites the desire of his heart and the focusing of his imagination. Then, Ficino suggests, both mental and physical diseases may be dispelled through sympathetic resonance between music spirit and human spirit, which encompasses and acts on both body and soul.

The music spirit, moving through the various planetary spheres, will activate the particular spirit of each, enabling the performer to recreate the music associated with each heavenly body; for example, the songs of Venus are 'voluptuous with wantonness and softness'.³² Ficino explains that when the petitioned planet is 'dignified' in the heavens, the performer's spirit will naturally attract the response of the planetary spirit, 'like a string in a lute trembling to the vibration of another which has been similarly tuned'.³³

In a natural magic based on the neo-Platonic vision of cosmos as harmony, it is not only audible music which may align the soul with the stars. From talismans, medicines, odours through the movements of dancing to immaterial qualities of mind, all may be appropriately used to restore a psychic connection to a particular planet. Thus 'well-accorded concepts and motions of the imagination' lead us to Mars, while 'tranquil contemplations of the mind' are the domain of Saturn.³⁴ Indeed Ficino understood true alchemy to be the transformation of the worldly frustrations and hardships traditionally associated with Saturn into the philosopher's gold of intellectual contemplation. Opposing Saturn in Ficino's own chart we find Jupiter, and of course this aspect symbolises the very polarisation of philosophy and religion that Ficino sought to overcome. His own view of the difficulty represented by the opposition, and the hope that Jupiter might alleviate Saturn was expressed in his letter to the Archbishop of Amalfi:

'You have divined, I think, how much I have long wanted to live my life with someone of a Jovial nature, so that something of a bitter, and

as I might say, Saturnine element, which either my natal star has bestowed on me or which philosophy has added, might eventually be alleviated by the sweet fellowship of someone born under Jove'.³⁵

Nowhere in Ficino's writings will one find a lack of poetry, metaphor, myth, or imagination, even when he is addressing the most technical subjects. Theory is never divorced from practice, objective 'truth' never distilled from the hermeneutics of spiritual experience - indeed his criticism falls heavily on those astrologers whose practice merely consists of knowing all the rules and applying them in 'cause and effect' mode. Ficino's very language is a language of sign and symbol, continually pointing towards the inexpressible, yet rich in colour and pithy in content. So it is not surprising that when considering the subject of *harmonia* or music theory, the concepts of consonance and dissonance are clothed in metaphoric garb. In his letter, the *Principles of Music*, Ficino describes the qualities of intervals in a musical scale as an analogy of the Hermetic procession of the soul from its origins to its final return to God, and it is worth quoting this passage in full as an example of Ficino's instinctive ability to bridge the sensible and the metaphysical:

'the lowest note, because of the very slowness of the motion in which it is engaged, seems to stand still. The second note, however, quite falls away from the first and is thus dissonant, deep within. But the third, regaining a measure of life, seems to rise and recover consonance. The fourth note falls away from the third, and for that reason is somewhat dissonant; yet it is not so dissonant as the second, for it is tempered by the charming approach of the subsequent fifth, and simultaneously softened by the gentleness of the preceding third. Then, after the fall of the fourth, the fifth now arises; it rises ... in greater perfection than the third, for it is the culmination of the rising movement; while the notes that follow the fifth are held by the followers of Pythagoras not so much to rise as to return to the earlier ones. Thus the sixth, being composed of the double third, seems to return to it, and accords very well with its yielding gentleness. Next the seventh note unhappily returns, or rather slips back to the second and follows its dissonance. Finally the eighth is happily restored to the first, and by this restoration, it completes the octave, together with the repetition of the first, and it also completes the chorus of the Nine

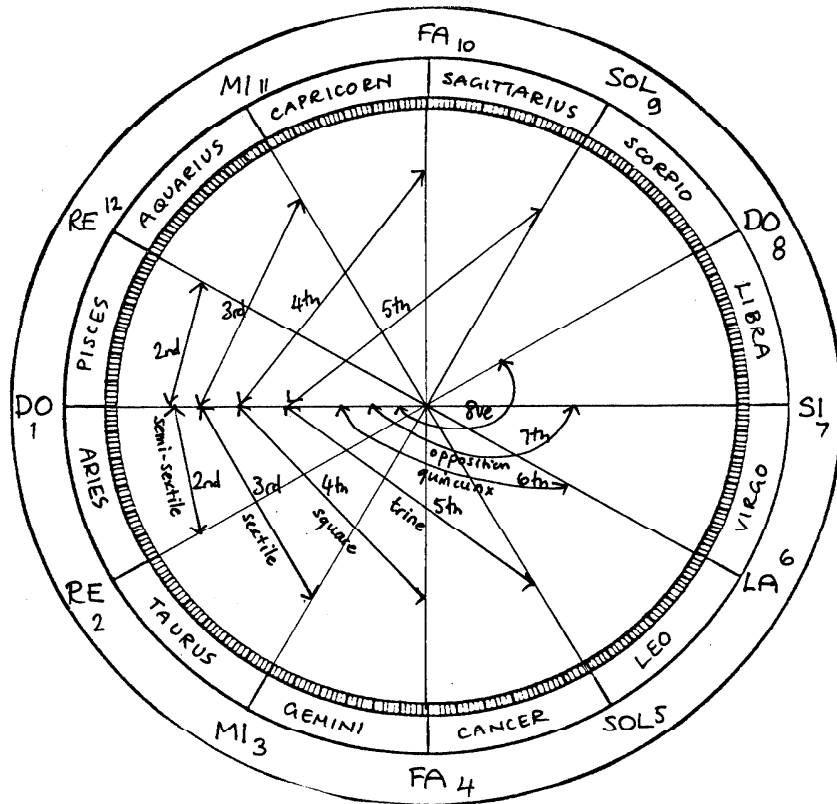
Muses, pleasingly ordered in four stages, as it were the still state, the fall, the arising and the return.'³⁶

In his quest for a unifying perspective, Ficino considers the idea of harmony on the three levels of manifestation; the intricacies of specific intervallic relationships in audible music, the relationship of the human senses to specific proportions of fire, earth, air and water, and finally what he calls the 'astronomical causes of harmony'. Drawing on Book Three of Ptolemy's *Harmonics*,³⁷ Ficino here seeks to show the congruence between the human experience of musical intervals and the tensions inherent in the angular relationships of the zodiacal signs. But whereas Ptolemy, as a mathematician, maintains a rigorously objective perspective, aiming to prove that astrology is a true science dependent on number, Ficino is more concerned with the practical experience of musicians and astrologers. Ptolemy focuses on the primacy of the octave, fifth and fourth, but Ficino considers each interval and aspect to be equally as important in contributing to the overall Good, the idea of dissonance merely stemming from the imperfection of the earthly condition. This is justified by music itself - for if the fourth is perfect, how can the square aspect be regarded as discordant? In his commentary on Plotinus, Ficino asserts:

'indeed not only is Cancer not dissonant from Aries, but it is consonant, for those parts are both of one greatly uniform body and of the same nature (which are discordant amongst us by harmonic tempering), and no less in heaven than in musical song are all things consonant among themselves. ... therefore the union of the planets represents for us the consonance of the octave.'³⁸

In the *Principles of Music* Ficino illustrates step by step how the intervals and aspects correspond in nature (see figure 2); the second sign 'falling away' from the first as in the dissonant second, the fifth 'looking benignly' on the first in a trine as a model for the perfect fifth.³⁹ The seventh sign, in opposing the first, is 'very vigorous in its discord,' according to Ficino, and 'seems in its clear hostility to prefigure the seventh tone in music, which with its vigorous and vehement quality is now most clearly dissonant from the first.' Ficino points out that the eighth sign, traditionally assigned to death, is therefore considered unfavourable. But from a theological perspective it is quite the opposite, as death frees the soul from the 'dissonance of the elemental world,

Figure 2. Ficino's musical scale in relation to the zodiac.



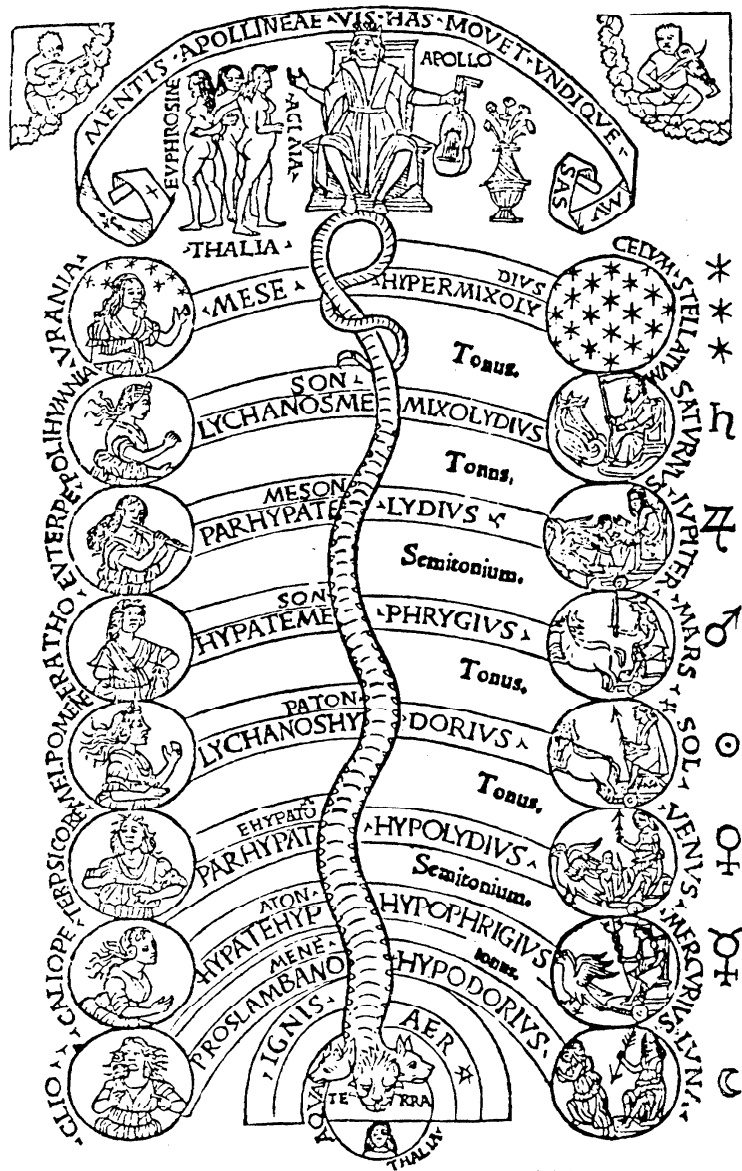
restoring it to the heavenly harmony.' Thus its nature is truly represented in the perfect consonance of the eighth tone, or the octave.

Ficino completes his journey around the zodiac by relating the ninth to twelfth zodiacal signs back to the first sign. In this way the ninth sign relates to the perfect fifth, the 'tenth sign of human ambition' to the 'human, middling dissonance' of the perfect fourth, the eleventh sign of human friendship to the interval of the third, and the twelfth sign, 'allotted to hidden enemies and prison', recapitulates the extreme dissonance of the interval of a second. It is interesting that whereas Ptolemy, in his concern for perfect mathematical symmetry, compares the opposition aspect to an octave, for Ficino the dissonance of the seventh, which demands a resolution into the consonant octave, most clearly corresponds to the experienced tension of the opposition aspect in astrological practice. What is more, the resolution of the seventh into the perfect concord of the octave musically embodies a metaphysical potential which for Ficino would provide its ultimate justification. From a psychological perspective it could be seen to represent the resolution of the tension of opposites within the individual into a unified Self; from a spiritual one, it embodies in sound the final release of the dissonance and tension of earthly existence into the perfection of heaven through death.

When Ficino played on his Orphic Lyre, which was probably a harp-like instrument, the qualities of the musical intervals he plucked from the strings would thus penetrate the very deepest levels of human experience. Whether he advocates a conscious use of these analogies when he instructs us to find tones or modes which correspond to the pattern of the heavens is difficult to say, and perhaps not the most important point. Ficino succeeded in bringing the music of the spheres to earth by recognising the uniting and transforming power of symbolic perception - a power whose apprehension depends on a suspension of rational thought and the willingness to be guided by the imagination.

Strongly influenced by Ficino, at the end of the fifteenth century we find the Milanese music theorist Franchino Gafori continuing the theme of harmonic correspondence and elaborating on Ramos' analogies to embrace all aspects of modal ethos related to Muses, planets and signs of the zodiac. If we look at the woodcut he included in two of his works⁴⁰ to illustrate this cosmic harmony (see figure 3), we find what Ficino might call 'an image of the world', where each planet and Muse occupies a sphere or medallion and the alchemical serpent, or three-headed Cerberus, connects the feet of Apollo to the silent, unmoving earth. The

Figure 3. Frontispiece to Gaffurius' *Practica musica*, 1496.



serpent can be seen as a bow, drawn across the eight strings of the celestial lyre, or alternatively as a monochord punctuated by the eight intervals of the octave. Out of the bosom of the earth, where the muse Thalia lies silent, the song germinates. To the lowest string is given the Hypodorian mode; Gafori says 'Persephone and Clio breathe and therefore the Hypodorian is born; here arises the origin of song.'⁴¹ Gafori continues his explanation of the diagram up through the planetary spheres, also associating each planet with its zodiacal sign; for example 'the sixth string, parhypate meson, has Jove, home of Pisces and Sagittarius, also Euterpe and the Lydian mode ... the Lydian of Euterpe contains also the music of Jove; sounding sweetly, the sixth string rules because a goddess is present.' Above the starry heavens the whole harmony is governed by Apollo, who directs the dance of the three Graces to his right. Cupids fly overhead playing a lute and *lira*, while the entire diagram is crowned by an inscription from a poem on the Muses by Ausonius: 'The spirit of Apollo moves these Muses everywhere.' In this animated heaven, the divine spirit manifests through the female principles of poetic inspiration, and Edgar Wind suggests⁴² that the vase of flowers to Apollo's left probably signifies the celestial *crater* through which the spirit descends to the natural world. Wind also points out that the serpent of Apollo, the Cerberus of Serapis, curls the end of its tail into a loop in an image of eternity or perfection (as in the variant of the serpent biting its own tail), thus evoking the Platonic notion of Time issuing from Eternity as the spheres emanate down from their unchanging source. We also notice that there are six flowers in the vase and three Graces, adding up to the number of Muses, nine. Thus the number six can be seen as representing the sensory, natural world and the number three heavenly purity, which may explain why Gafori mysteriously attributes the sixth mode to 'the goddess' or 'feminine' principle of nature. The three 'pure' emanations - the Dorian mode in the centre issuing forth from Melpomene, Urania above the planets, Thalia below the earth - contain and divide the other six 'sensuous' ones into two triads. Wind suggests: 'In the order of the Muses, the triad Urania-Melpomene-Thalia would then emanate from the dance of the Graces, while the six intermediate Muses are "planted" in Apollo's vase.' He adds that the names of the Graces - in contemporary translations - also relate to the celestial sphere (Euphrosyne/*laetitia*), the Sun (Agliaia/*splendor*) and the subterranean seeds of music (Thalia/*viriditas*).

In this way we can begin to see how this complex illustration is far more than simply a diagrammatic representation of cosmic analogies. Its symbolic content, as an expression of a Neoplatonic vision of an ensouled cosmos, is designed to waken and set in motion the spiritual energy, emanating as musical harmony, from the silent depths of nature. Like the Botticelli's *Primavera*, albeit in a less sophisticated way - it somehow stirs a perception of unity from deep within, in the manner of a talisman. A final quotation from Gafori emphasises the spiritual implications of his *musica mundana*: 'Finally, we did not believe it should be passed over in silence that musical systems contribute much to the perfection of virtue, which some call divination because it is the greatest ornament and salvation for anyone.'⁴³

From its humble beginnings in the solitary lyre-playing of Marsilio Ficino, the music of the spheres continued to be heard throughout the following century. For Cornelius Agrippa, whose *Three Books of Occult Philosophy* (1531) provide a compendium of magical theory and techniques, Ficino's sympathetic magic and Gafori's conception of cosmic harmony combine in a system of ritual presided over by the Magus, who shapes and exploits the properties of music in his quest for spiritual truth. In the field of practical music, the great *intermedii* of the Medici court in Florence attempted to recreate the Platonic world of Ideal forms on earth through arousing the wonder of the audience - the enormous scale of the visual spectacle and musical forces were created with the purpose of imitating perfect Beauty. On a smaller scale, the Hermetic revival in Elizabethan England produced such exquisite music as that by John Dowland, whose seven *Lachrimae* Pavans for viols and lute evoke the Neoplatonic descent and ascent of the soul, and in whose songs of deepest melancholy lies hidden the gold of the philosophic Saturn.

With the Copernican revolution and the development of physics and astronomy as independent from philosophy, cosmic music became increasingly the domain of the esoteric scientist rather than the practical musician. *Musica mundana* found itself incorporated into ever more complex systems dependent on the unity of all universal elements, by such polymaths as Robert Fludd, Anasthasius Kircher and Johannes Kepler. But despite the attempts of the Florentine Camerata at the beginning of the 17th century to revive ancient Greek ideals of musical ethos, *musica instrumentalis* gradually lost its philosophical justification

and the Baroque characteristics of formal structure, stylistic nuance and ornamental gesture determined composers' intentions. In esoteric circles, divorced from the enlightened world of rationalism, the invention and elaboration of musical systems explicitly related to occult correspondences continued to be explored and enjoyed a revival in the Romantic period. In the twentieth century we may think of Rudolf Steiner or G.I. Gurdjieff as spokesmen for music as a spiritual discipline, but we do not hear the music of the spheres any more. The composer Arnold Schoenberg at the beginning of this century 'emancipated the dissonance', that is, freed the twelve-note chromatic scale from any notions of internal hierarchy and made all notes equal. Similarly, we no longer have the opportunity to distinguish between musical temperaments, or the tuning systems used for specific effects until the eighteenth century. Due to the innovations of J.S.Bach, the music we hear is 'equally tempered' - all perfect fourths or fifths being smoothed away. Astrology too has suffered the fate of becoming divorced from philosophy, forced to attempt to align itself with prevailing paradigms of scientific reality; in a period of confusion over the value of spiritual experience, it is led to deny its roots in *notio*, a contact with the numinous which precedes all processes of differentiation by the mind. However, as Ficino suggests, there may be a very simple way for a human being to re-establish a connection with these roots, and once more lend an inner ear to the harmony of the spheres:

'Whenever in your studies you make a serious attempt to postulate that there are many angelic minds beyond heaven, like lights, whose ordering relates them both to each other and to one God, the father of all lights, what will be the point in pursuing your investigations down long winding paths? Just look up at heaven, I pray, Oh citizen of the heavenly realm, at that heaven whose manifestly perfect order so clearly declares God to be its creator'.⁴⁴

References

1. For a full analysis, see E. Wind, *Pagan Mysteries in the Renaissance* (Oxford, 1980) pp.113-131.
2. See Ficino, 'De Christiana religione' in *Opera omnia* (Basle, 1576) [hereafter *Opera omnia*], p.1, trans. in J. Hankins, *Plato in the Italian Renaissance* (New York, 1991), p.289.

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3. Iamblichus, *On the Mysteries*, I.3, trans. T. Taylor, ed. S. Ronan (Tunbridge Wells, 1989), p.24.
4. *Opera omnia* p.944.
5. Ficino, *Liber de vita*, III.20.36, in *Three Books on Life* ed. K. Caske & J. Clark (Binghamton, 1989) [hereafter Ficino, *De vita*], p.351.
6. Plotinus, *De rebus philosophicis libri LIII* f.222r, trans. Ficino (Basle 1559), quoted in G. Tomlinson, *Music in Renaissance Magic* (Chicago 1993), p.86.
7. Plato, *Timaeus* 47b-e.
8. Boethius, *De Institutione musica* I.2, trans. C. Bower, in ed. J. Godwin, *Music, Mysticism and Magic* (London 1986) [hereafter Godwin, *Music*], pp.46-7.
9. See G. Shaw, *Theurgy and the Soul* (Pennsylvania State Univ. 1995) [hereafter Shaw, *Theurgy*], pp.206-7.
10. *Timaeus* 34a-36d.
11. *ibid.* 37a.
12. *ibid.* 42e-44c.
13. Quoted in Shaw, *Theurgy*, p.214.
14. Plato, *Republic*, X.616-7.
15. Cicero, *De Republica* VI, quoted in Godwin, *Music*, p.11.
16. Johannes Afflighemensis, *De musica* XVI, in ed. C. Palisca, Hucbald, Guido and John, *On Music*, (New Haven and London, 1978), p.110.
17. See J.C. Burgel, *The Feather of Simurgh: the Licit Magic of the Arts in Medieval Islam* (New York 1988).
18. G. Anselmi, *De musica*, ed. G. Massera (Florence, 1961), p.150.
19. See J. Godwin, *Harmonies of Heaven and Earth* (London, 1987), p.143.

20. B. Ramos de Pareja, *Musica practica*, 1482, ed. J. Wolf in Publikationen der Internationalen Musikgesellschaft, Beihefte II (Leipzig 1901), p.59.

21. *Opera omnia* pp.901-2: my translation.

22. A. Poliziano, *Opere* (Basle 1553), p.310.

23. Ficino, *De vita*, p.355.

24. G. Pico della Mirandola, *Conclusiones nongentae*, ed. A. Biondi (Florence 1995), p.121.

25. Ficino, *De vita*, p.357.

26. Quoted in A. della Torre, *Storia dell'Accademia Platonica* (Florence, 1902), p.791.

27. Ficino, *De vita*, pp.357-9.

28. *De vita* 3.XXI, p 361.

29. *De vita* 3.XXI, p 359.

30. *ibid.*

31. *ibid.*

32 *De vita* 3. XXII, p 365.

33. Ficino, *De vita*, p.361.

34. Ficino, *De vita*, p.363.

35. *The Letters of Marsilio Ficino*, 5 vols, 1975, 1978, 1981, 1988, 1994 trans. members of the School of Economic Science, London. London Vol IV, pp.60-1. Also see *De vita* 3.VI.p.275; 3.XXII.p.365; 3.XXIV.p.377; *Letters* vol.1 p.161. for Ficino's discussion of planetary meanings.

36. Ficino, *De rationibus musicae*, in ed. P.O. Kristeller, *Supplementum Ficinianum*, vol. I (Florence 1937) [hereafter *De rationibus*], p.55.

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37. C. Ptolemy, *Harmonicorum sive de musica*, libri tres III.16, in ed. A. Barker, *Greek Musical Writings*, vol.2 (Cambridge 1989), pp.275-535.

38. *Opera omnia*, p.1615.

39. For refs. in this section, see *De rationibus* pp.55-6.

40. As frontispiece to F. Gaffurius, *Practica musica* 1496, ed. I. Young (Madison 1969) and in *De harmonia musicorum instrumentorum opus* 1518, trans. C.A. Miller (Ann Arbor 1977) [hereafter *De harmonia*], p.201.

41. For this and subsequent refs. see Gaffurius, *De harmonia*, pp.199-200.

42. For Wind's analysis of this woodcut, see E. Wind, *Pagan Mysteries in the Renaissance* (London 1958), pp.265-9.

43. Gaffurius, *De harmonia*, p.210.

44. Ficino, *De sole* ch.II, trans. G.Cornelius, D. Costello, G.Tobyn, A.Voss & V.Wells, in *Sphinx* 6 (London Convivium for Archetypal Studies, 1994), p.127.