Kandinsky, Schoenberg, and the Music of the Spheres

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Throughout his career, Vasily Kandinsky looked to music as the ideal art. This is immediately apparent in his memoir "Reminiscences" (1913), in the way Kandinsky describes one of the most profound visual experiences of his formative years: the spectacular hour of sunset in Moscow that captivated his senses. Characteristically, he tries to convey this visual phenomenon to the reader by speaking of it as the performance of a grand symphony, in a rhapsodic passage that includes these lines: "The sun dissolves the whole of Moscow into a single spot, which, like a wild tuba, sets all one's soul vibrating. No, this red fusion is not the most beautiful hour! It is only the final chord of the symphony, which brings every color to life, which allows and forces the whole of Moscow to resound like the fff of a giant orchestra." As he tries to interpret this visionary experience, the compelling unification of the visual field before him—Moscow's "fusion" into a "single spot"—makes itself felt musically, as the harmony of a great "chord." (Other acoustical phenomena join in to enhance the sense of unity: sympathetic vibration and resonance, which audibly link objects to each other, incite the soul to "vibrate" and the entire surrounding countryside to "resound.") Kandinsky quickly draws inferences for his vocation as an artist, saying, "To paint this hour, I thought, must be for an artist the most impossible, the greatest joy." And, finally, he makes a further leap of the imagination, connecting his painterly ambition to the music of Richard Wagner—not to Wagner the storyteller, of course, but rather to Wagner the atmospheric tone painter and magician of orchestral color, whose work in this regard "seemed to me the complete realization of that Moscow. . . . Wagner had painted 'my hour' musically."²

Such eagerness to translate his loftiest artistic aspirations into musical terms reveals an essential quality of Kandinsky's thinking when he invented his initial abstract style. For music—free from any necessity to depict a definable subject other than itself, yet able to produce the most profound emotional response in its audience—furnished a ready model for the aesthetic effect he wanted to achieve: a canvas intensely expressive, yet ineffable. He was in this respect of course deeply affected by his encounter with his contemporary, Arnold Schoenberg, who

soon replaced the historical figure of Wagner as his ideal or model composer, and with whom Kandinsky developed a sense of shared artistic enterprise that enriched their years of friendship.

The pages that follow try to isolate one particular aspect of how Kandinsky understood musical composition to be a prototype for painting. That is to say, I want to show how Kandinsky, following the ancient idea of the "harmony of the spheres," believed that musical schemes of organization held the world together and gave it shape, like the great chord he intuited in the "Moscow hour." Pursuing this notion through Kandinsky's writings and artistic practice can tell us something fresh about the always elusive role that musical ideas played in his aesthetic, and how he responded in his art to Schoenberg's example.

As is well known, Kandinsky attended a concert in January 1911 in Munich that included Schoenberg's Second String Quartet and Three Piano Pieces (op. 11). Overwhelmed by these works, the painter immediately wrote to Schoenberg and initiated their correspondence and personal friendship. The friendship was at its height from 1911 through 1914, when World War I intervened and forced Kandinsky's return to Russia. A second, sadder stage of their relationship followed the war: Kandinsky, again in Germany, teaching at the Bauhaus, urged Schoenberg in 1923 to seek the directorship of the nearby Weimar Musikhochschule, writing on April 15, "How often I have said to myself, 'If only Schoenberg were here!' "3 But within days of the letter the two had a terrible falling out, when the composer heard insinuations of anti-Semitism against Kandinsky, and they did not make peace until 1927.

During the pre-World War I years of their friendship, their creative activities often overlapped: notably, Schoenberg contributed an article to *The Blue Rider Almanac*, edited by Kandinsky and Franz Marc, and scores by Schoenberg, Alban Berg, and Anton Webern also appeared there, while paintings by Schoenberg were reproduced in the *Almanac* and shown in the first Blue Rider exhibition, organized by Kandinsky. Underlying these shared enterprises, the two felt that they held in common a great many aesthetic concerns, particularly the now familiar notion that abstract painting and atonal music, each just then making its own radical break with tradition, were comparable endeavors. As Kandinsky wrote to Schoenberg in his first letter, "The independent life of the individual voices in your compositions is exactly what I am trying to find in my paintings."

I want to suggest, however, that perhaps we have often to some extent missed the point of what Kandinsky derived from Schoenberg, because commentators have restricted themselves to this now frequently invoked, almost glib, abstraction-equals-atonality thesis. Even so brilliant a commentator on Kandinsky as Peter Vergo apparently regards Schoenberg's music as important primarily

for providing an incentive for avant-garde enterprise, reassuring Kandinsky that the plunge into abstraction was part of larger aesthetic trends, without, however, providing him with a usable technical model.⁵ But, we may well ask, did the painter consider the two arts as indeed parallel *in their aesthetic functioning*—that is, in their technical procedures—such that Kandinsky can truthfully call Schoenberg's technique "exactly" what he himself has been trying to find? And if he did, in what way? These are the questions that I feel want to be answered.

Perhaps we have also often missed the point by concentrating on the earlier stage of their relationship, before World War I, the era of Kandinsky's expressionism, instead of looking with equal interest at his geometric work of the Bauhaus period. The emphasis on the earlier phase is natural, of course, given the two men's collaborative Blue Rider efforts and the astonishing quality of the work that each produced during that time. And Kandinsky's writings from the earlier phase, particularly On the Spiritual in Art (1912), with its obsessive concern for the "colors" of sounds and with syneasthesia, together with its explicit mentions of Schoenberg, readily invite interdisciplinary analysis. Yet that treatise was substantially complete before Kandinsky had heard a note of Schoenberg's music, and its mentions of him were last-minute additions. As a result, commentators have largely overlooked the way that somewhat more specific musical ideas, derived from sustained personal contact with Schoenberg, even more deeply infiltrate Kandinsky's subsequent treatise, Point and Line to Plane (begun in 1914 and published in 1926), despite its coolly analytical, less poetic language, and its focus on the seemingly drier subject of the geometry of pictorial composition. When commentators interpret the story of Kandinsky and Schoenberg as ending abruptly in 1914, with the onset of war, the assumption is that music's role in the painter's thinking remained fixed and unchanging thereafter, with little further to be discovered in his canvases and pedagogical writings of the 1920s. I want to suggest, however, that the full implications of Schoenberg's example were time-released, so to speak, in Kandinsky's system and did not fully manifest themselves until 1926, with the publication of the artist's Point and Line to Plane.

My approach also involves placing the music-painting connection within the context of Kandinsky's vast ambitions for abstract painting as a "cosmic" art. On the Spiritual in Art and The Blue Rider Almanac make it clear that Kandinsky expected serious art to address the lofty, if sometimes vaguely defined, theme of "the cosmos," and he sharply criticized production that failed to pursue it (flatly dismissing the bulk of nineteenth-century drama in the Almanac, for example, because "The cosmic element is completely lacking"6). Given Kandinsky's recourse throughout his career to what could be called a rhetoric of the cosmic, from the resounding universe of his "Moscow hour" to the cosmogony of his Bauhaus graphic works called Little Worlds (Kleine Welten), his thoughts about the music-painting nexus may be discovered amid the

larger theme of cosmology itself in his work. Let us turn to some relevant notions of the creation of the world and of artistic creation, and look again at Kandinsky's ambition to paint the cosmos, by pursuing the organizing, overarching theme of the music of the spheres.

Creating a Musical Cosmos

The ancient concept of celestial harmony, going back to Pythagoras and Plato, came to be rearticulated in the nineteenth century by Hermann Helmholtz in his treatise *On the Sensations of Tone* (first published in 1862): "Everything is Number and Harmony," was the characteristic principle of the Pythagorean doctrine. The same numerical ratios which exist between the seven tones of the diatonic scale, were thought to be found again in the distances of the celestial bodies from the central fire." This being so, as Plato wrote in the *Republic*, each planet, revolving about the center on its own concentric wheel, emitted its own distinctive note. That in briefest summary defines the operative concept of the music of the spheres: The laws of physics that hold the revolving orbs of the heavens in their places duplicate the mathematical proportions of musical harmony, evident in the notes of the scale.

No less a figure than Gustav Mahler, to whom Schoenberg dedicated his *Theory of Harmony (Harmonielehre)*, could draw on this persistent ancient idea in explaining his own work. In a letter to Willem Mengelberg about the "Symphony of a Thousand," Mahler wrote: "I have just completed my Eighth. It is the greatest thing I have yet done, and so strange in form and content that I can scarcely describe it to you. Imagine that the cosmos itself begins to resound with the music of the spheres—these are not human voices, but suns and planets as they turn in their orbits." Beyond possible self-aggrandizement, such words do touch on the overtly cosmological concerns of the Eighth Symphony itself, from its opening "Veni, creator spiritus" to the heavenly ascent at its end with the exhortation to the soul to "Raise yourself to higher spheres!" ("*Hebe dich zu höhern Sphären!*").¹⁰

Schoenberg's own interest in the music of the spheres, noted by a personal acquaintance, has received some attention. The concept appears in only slightly disguised form in Schoenberg's Second String Quartet, the work that incited Kandinsky's initial admiration and which he specifically mentions in *On the Spiritual in Art.* In the famous fourth movement, with soprano, the dissolution of tonal restraints coincides with a fantasy of departure for a nonterrestrial sphere—an apparent, if temporary, abandonment of tonality at the words "I feel the air of another planet" ("Ich fühle Luft von anderem Planeten"). (The poem continues, "I am dissolved in swirling sound . . . and I yield myself to the mighty breath. . . . Carried aloft beyond the highest cloud.") The breath of atonality hints at interplanetary transport, to a sphere beyond the "harmonic" structure of the

familiar heavens. Moving out of earth's tonal atmosphere, we sense another world.

Such notions grant the composer a godlike power of creation—calling another world into being from nothingness, a world endowed with its own inner principles of order. Hearing the Second String Quartet led Kandinsky to reexamine the power of celestial harmony in his own art. His paintings of the period work toward such a musical cosmos, notably in his series of "apocalyptic landscapes" with themes of primal genesis or cosmic catastrophe, known by the musical title of Compositions, on account of what he called their "symphonic" nature. His two great images of cosmic convulsion from 1913, Composition 6 and Composition 7, strive to render some sense of the composition of the universe—with "composition" taken in the combined musical and pictorial senses. 15 In his writings, too, Kandinsky speaks of celestial cataclysms, and of the creation of the individual artwork as their microcosm, even as he suggestively associates such events with musical harmony: "Technically, every work of art comes into being in the same way as the cosmos—by means of catastrophes, which ultimately create out of the cacophony of the various instruments that symphony we call the music of the spheres. The creation of the work of art is the creation of the world."16

His words remind us that the creation of the world has often furnished an essential subject for composers, a subject that can be realized with special force in symphonic composition because of music's ability to enact what in the West has been the very definition of Creation—the emergence of cosmic order out of primordial chaos. In Haydn's Creation, the opening Representation of Chaos starts with what Donald Francis Tovey called the "infinite empty space" of the great unison C,17 and the unresolved, wandering progressions and sharp dissonances give way, at the words "And God said, 'Let there be Light,' and there was LIGHT," to the thundering C-major chord that not so much signals as acts out the coming of divine order and harmony. Similarly, the mysterious opening bars of Beethoven's Ninth Symphony (or, in Wagner's view, the entrance of the human voice in the last movement)18 are often interpreted as a Creation event, the advent of order out of nebulousness; as Wagner said of the Ninth, "Light breaks on Chaos." Along similar lines, the Adagio at the opening of the Overture to Mozart's The Magic Flute has been seen to represent darkness and chaos, followed by the fugue, which is light, in yet another familiar version of the music of Creation.20

In *The Blue Rider Almanac*, such ideas of musical cosmology are explicitly acknowledged, as when Leonid Sabaneiev writes of Scriabin's "mystical harmony" in *Prometheus* and how "During these sounds the grandiose idea of the original chaos arises, in which for the first time the will of the creative spirit becomes audible." It is worth noting that Schoenberg, too, pursued the theme, and years later, in his *Kol Nidre* of 1936, wrote his own tone-painting version of this Creation myth in setting the text he had devised: "The Kabalah tells a legend:

At the beginning God said 'Let There Be Light.' Out of space a flame burst out."²² Elsewhere, Schoenberg allied the biblical fiat with the work of the creative artist (as Kandinsky often did).²³

These examples of musical Creation events define a major theme in Kandinsky's work. To make them more fully to his purposes as an abstract painter, however, the artist needed to look beyond their strictly narrative aspects and instead seek what such Creation ideas tell about the nature of the world's "harmonic" structure, in a more abstracted or theoretical sense. And this would be found in what he absorbed from Schoenberg, the author of *Theory of Harmony* (1911).

"A Theory of Harmony of Painting"

In The Blue Rider Almanac, Kandinsky printed Goethe's 1807 remark that "in painting the knowledge of the thorough bass has been missing for a long time; a recognized theory of painting, as it exists in music, is lacking"24 (a comment technically referring to the bass-note sketch provided to a keyboard player for the continuo part). Again, in his Almanac article "On the Question of Form," Kandinsky cites Goethe's remark and points to his own hope for an "aesthetic [that] gradually assumes its proper place. This is the future 'thorough bass,' ahead of which naturally lies infinite change and development!"25 He calls for the development of principles "which will soon lead to a 'thorough bass' in painting." This goal Kandinsky set for himself in particular. Much taken with Schoenberg's *Theory of* Harmony (the author having sent him an inscribed copy), Kandinsky in a 1911 letter to the composer said he wanted to write a similar book for painting: "I envy you very much! You have your *Theory of Harmony* already in print. . . . How long will painting have to wait for this? . . . In this field as well one may now dream of a 'Theory of Harmony.' I already dream and hope that I will write at least the first sentence of this great future book."27 Then, in his 1912 preface to the second edition of On the Spiritual in Art, he announces that he has held off revising the book for this edition so that he can put his newest material in a follow-up volume already being planned: "I decided to add this new material to other penetrating observations and experiences I have been building up for several years, which will in time perhaps constitute, as chapters of a kind of 'Theory of Harmony of Painting' [Harmonielehre der Malerei], the natural continuation of this book."28 Begun in 1914 but interrupted by World War I, that "natural continuation" would eventually be completed and published in 1926 as Kandinsky's Point and Line to Plane: Contribution to Analysis of the Pictorial Elements (Punkt und Linie zu Fläche: Beitrag zur Analyse der malerischen Elemente).²⁹

Schoenberg's written contribution to *The Blue Rider Almanac* had already begun to suggest some ways of deriving a cosmic and aesthetic model from music. In his *Almanac* essay, Schoenberg quotes Schopenhauer's *World as Will and Representation* (first published in 1818) on the primacy of music: "Schopen-

hauer himself expressed a wonderful insight into music: 'The composer reveals the innermost essence of the world." ³⁰ In that same section of *The World as Will* and Representation from which Schoenberg quotes (vol. 1, §50), Schopenhauer discusses the primal, even cosmic nature of music at length, but dismisses Haydn's Creation as hopelessly anecdotal tone painting. Instead of just supporting a story line, he sees the intrinsic structure of music itself as being "cosmic": "Music differs from all the other arts by the fact that it is not a copy of the phenomenon, or, more exactly, of the will's adequate objectivity, but is directly a copy of the will itself, and therefore expresses the metaphysical to everything physical in the world, the thing-in-itself to every phenomenon. Accordingly, we could just as well call the world embodied music as embodied will."31 Such a formulation was bound to appeal to Kandinsky, with his wish to find, through aesthetics, how the metaphysical found "embodiment" in the physical. So, too, in his later Bauhaus geometric works would he heed Schopenhauer's likening of music to mathematics and his praise of its avoidance of the "merely" abstract: "In this respect it is like geometric figures and numbers, which are the universal forms of all possible objects of experience and are a priori applicable to them all, and yet are not abstract, but perceptible and thoroughly definite."32

Even more than these, one particular strand of Schopenhauer's thinking would help Kandinsky to embody music's "abstract" form in a concrete work of visual art. In this same section, Schopenhauer speaks of cosmic generation in a way that extends the metaphysics of music to the physics of creation:

I recognize in the deepest tones of harmony, in the ground bass, the lowest grades of the will's objectification, inorganic nature, the mass of the planet. It is well known that all the high notes . . . may be regarded as resulting from the simultaneous sounding of the deep bass-note. With the sounding of the low note, the high notes always sound faintly at the same time, and it is a law of harmony that a bass-note may be accompanied only by those high notes that actually sound automatically and simultaneously with it (its *sons harmoniques* [harmonics]) through the accompanying vibrations. Now this is analogous to the fact that all the bodies and organizations of nature must be regarded as having come into existence through gradual development out of the mass of the planet.³³

Schopenhauer uses the harmonic (or overtone) series to draw a fruitful analogy between the construction of the scale from the primordial tonic and the construction of the world from the primordial "mass of the planet." The harmonic series has always been the essence of the music of the spheres, and so it is in Schoenberg's thinking as well as in Kandinsky's, since it generates the steps of the scale, which give structure to the "world" of diatonic music and which are analogized as the planets, each representing one note of the scale. Thus Schoenberg conceived of the "steps" of the scale as the philosophical armature of his oratorio *Jacob's*

Ladder (begun in 1917), in which Gabriel tells the Chosen One: "Come closer—one who . . . is a likeness and possesses radiance, who resembles One far higher, as the distant overtone [resembles] the fundamental."³⁴

The overtone series becomes the great model of all creation, whether aesthetic or cosmological. In giving importance to "the lowest bass which is to be regarded as the origin of all"35—all the notes, but also all the world—Schopenhauer had provided the philosophical groundwork for the Prelude to Wagner's Das Rheingold, composed in 1853-54. There, the world of Der Ring des Nibelungen generates itself out of the initial, long-sustained, unison low E-flat in the double basses, which constitutes the primordial unity of an as yet undifferentiated, and therefore not yet created, cosmos. Then, after a seemingly indeterminate time, the fifth is added, in the bassoons, subsequently to be joined after a further passage of time by the third, in the horns. It has been written that "this technique of anticipating a pitch through a prominent overtone lends a certain inevitability to the process and suggests that all life—the entire musical universe of the Ring is latently present in the initial sound."36 Or, put another way, "By unfolding the overtone series [the Prelude] serves as a musical metaphor for the creation of the world and depicts the gradual evolution of impersonal natural forces into human consciousness."37 It is what Theodor Adorno's In Search of Wagner calls "the conception of an inwardly coherent self-unfolding totality."38

Kandinsky found detailed discussions of these harmonic matters in Schoenberg's Theory of Harmony. In his copy, Kandinsky could read about "the overtone series, which is one of the most remarkable properties of the tone,"39 and "the fulfillment of the necessities of the bass tone." In addition, at this time he translated into Russian Schoenberg's essay "On Parallel Octaves and Fifths," personally examining and transcribing, word by word, its well-known discussion of how dissonances "differ from consonances only in degree," that is, only by being more remote than "the more immediate overtones." Along with these technical analyses were Schoenberg's more philosophical meditations on related themes. For example, Kandinsky could also find a more elaborate statement of the intrinsic potential within the single note, as so richly demonstrated in the primordial unfolding of the Rheingold Prelude, and stated in a way that would help reshape Kandinsky's own understanding of the function of the individual graphic point in the visual arts: "The primitive ear hears the tone as irreducible, but physics recognizes it to be complex. In the meantime, however, musicians discovered that it is capable of continuation, i.e. that movement is latent in it. That problems are concealed in it, problems that clash with one another, that the tone lives and seeks to propagate itself. They had heard in it, and extracted from it, the octave, the fifth, and the third."42 Schoenberg's way of presenting the overtone series, a fact of acoustical physics, in the dramatic terms of "problems that clash with one another" being "concealed" or "latent" within the single, supposedly irreducible tone, draws special attention to the fact that both harmony and dissonance arise out of the series, the so-called dissonances simply being the more distant harmonics.

I believe that this quality of potential dissonance within even the individual note had far-reaching implications for Kandinsky's conception of his own work, with his parallel idea of an art based on "inner tensions" and the artist's "inner necessity" (i.e., the contending forces, or inner tensions, within the artist that demand outward expression through art). Indeed, it became of incalculable importance to Kandinsky, who was looking for transcendent principles to give structure to abstract visual art. Schoenberg identified a world of inner tensions, of "problems that clash" with one another, compacted within the single, supposedly simple tone. Built into the structure of the cosmos, since it is intrinsic to the way matter behaves as it vibrates, the overtone series, as an inherent property, comes close to being music's own "inner necessity." It would be a lesson that Kandinsky remembered well.

The Harmonics of *Point and Line to Plane*

Inspired by Schoenberg's analysis of the "problems that clash"—that is, the potentially dissonant distant harmonics—concealed within the individual audible tone, Kandinsky in *Point and Line to Plane* theorizes on the individual graphic mark. There, the textbook example of the division of the vibrating string, which produces out of the single fundamental the progressive harmonic subdivisions of the individual scalar notes, becomes the underlying model for Kandinsky's compositional theory. For him, the fundamental tone is directly equivalent to the single graphic point; from it, like the overtone series, he generates the "melody" of line and divides up the picture plane with "harmonics" to create a system of analogous, visual tensions.

Like the pregnant silence before an overture, the untouched canvas is for Kandinsky already alive with potential: "Blank canvas. In appearance: truly empty, keeping silent, indifferent. Almost doltish. In reality: filled with tensions, with a thousand low voices, full of expectation."⁴⁵ Then he unfolds those intrinsic tensions. He begins with the single dot—calling it "the primordial element of painting"⁴⁶—which he treats like the fundamental. He animates it and makes it a living thing: "And beginning with the 'point,' which is the origin of all the other forms, whose number is unlimited, this small point is a living being that exerts many influences on man's spirit. . . . It says, 'Yes, it's me—do you hear my small but necessary voice in the great 'chorus' of the work?" "⁴⁷ And so, having made the individual point equivalent to the "voice" of the individual musical note, Kandinsky diagrams for his reader, and graphically translates, passages from Beethoven's Fifth Symphony (figure 4.1).

As the artwork unfolds, the point plays out its primal, generative role: "its inner qualities—silent until now—take on an increasingly powerful sound. These



Beethoven's 5th Symphony (the first measures).



Figure 4.1. Beethoven's Fifth Symphony translated into points. (Illustration from Kadinsky's treatise Point and Line to Plane: Contribution to Analysis of the Pictorial Elements [Punkt und Linie zu Fläche: Beitrag zur Analyse der malerischen Elemente], 1926)

qualities—inner tensions—emerge one after another from the depths of its being, emitting a radiant force. . . . In short, the dead point becomes a living being."⁴⁸ The point, like a living cell, reproduces by dividing itself, the creative eruption of its own inherent tensions (the "problems that clash" concealed within it), and extends itself into line. In thus extending itself in space (as the note extends itself in time), the point generates the visual equivalent of a melody line (for "in music . . . line operates exactly the same temporal and spatial way as is to be seen in painting"⁴⁹).

Positioned centrally on the picture surface (a placement that is "the simplest and most concise"50), the primordial point is illustrated diagrammatically in Point and Line to Plane (figure 4.2). Kandinsky proceeds to make the point the prime coordinate for dividing the surface, using line to bisect the picture surface horizontally through it, and then again vertically, dividing the plane into quadrants (figure 4.3), just as the vibrating string is divided in half to produce the octave, and then divided in half again to produce the fifth, and so on. This initial construction "consists of a square divided into four squares, producing the most primitive form of division of a diagrammatic surface."51 If "division" seems like a rather mundane paradigm for this first act of creation, we need only recall that the God of the Old Testament creates the universe in Genesis precisely by dividing light from darkness, and setting the firmament in place to divide the waters above from the waters below. In Kandinsky's case, what equal division of the picture place calls into being is the "diagrammatic" form of the grid—a structure fraught with significance in early modern art, since it seems to partake equally of the materialistic and the spiritual properties of the picture plane, ⁵² recalling Schopenhauer's discussion of the "physical" and "metaphysical" in music.

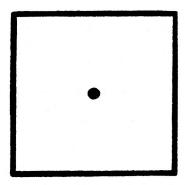


Figure 4.2. Point lying in the center of a square. (From *Point and Line to Plane*, 1926)

Having reached this level of differentiation, Kandinsky reveals the working model for his unfolding conception of the picture plane. With "the sum of the tensions" thus multiplied by the creative division of the picture plane, he says of figures 4.2 and 4.3: "Thus the immediate step from the diagrammatic image of the point to the diagrammatic linear image is achieved by an astonishing increase in resources: a jump from a single unison to a 12-note chord."⁵³ That is, he conceives the six horizontal and six vertical line segments as constituting the twelve tones of the chromatic scale. By geometric means, Kandinsky has generated the "notes" of his scale from his initial "fundamental," and thus given himself a graphic "twelvetone" compositional system of harmonic intervals as free as he understood Schoenberg's to be.

The purpose of this system is to allow him to organize the dynamics of the composition on the picture plane. And so Kandinsky then methodically divides up

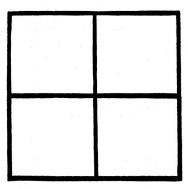


Figure 4.3. Square divided into quadrants. (From Point and Line to Plane, 1926)

the square further with a rigorous system of differing tensions at different points, giving each point on the grid its own special degree or tension value (figure 4.4), just as the notes of the scale each have their own individual degrees of tension with the tonic. Like the overtone-generated scale, the gridded plane becomes a "field" of potential tensions out of which an artwork can be constructed—a system for creating and balancing compositional tension and release, convergence and divergence, imagined as a constant interplay of "point" and "counter-point." Endowing each point with its own degree of tension with this "tonic," Kandinsky is able to bring out for our inspection what he calls "the inner sense of the tension of the P[icture] P[lane] [Grundfläche]."⁵⁴

In practice, this means that in moving around the plane, the artist navigates a network of rising and falling harmonic tensions, as he takes a form or line closer to or farther from the individual grid lines or the outer edges. Kandinsky writes, for example, that "as a form approaches the edge of the P[icture] P[lane], its tension increases until at the moment of contact with the border, the tension suddenly ceases. . . . [C]lose proximity to the border of the PP heighten[s] the 'dramatic' sound of the construction."55 In moving toward the border, that is, the "sound" of the line acts out the "do-re-mi-fa-sol-la-ti..." of the diatonic scale moving toward completion at the octave of "do," with the maximum tension being reached at the penultimate, seventh degree of "ti." When the "sound" arrives at the octave, the border, the tension is suddenly relieved, or resolved.

Kandinsky's musical language, his definition of the picture plane as the grid of a "12-note chord," seems inevitable, for these generative inner tensions, giving a different degree of stress to each point on the compositional grid, are conceived precisely as *dissonances*: They are intrinsically unresolvable oppositions between contrasting elements, the properties of dynamic relationship that make artworks

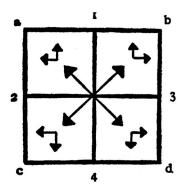


Figure 4.4. Tensions exerted from the center of a square. (From Point and Line to Plane, 1926)

function, and indeed make them possible. Without dissonance there could be no generative, sustaining tension. This in part is why Schoenberg, seen as the liberator of dissonance, captured Kandinsky's imagination. Dissonances, or tensions, whether in the cosmic harmony or in the composition of the pictorial field, are that "inner necessity" from which all true art springs. Kandinsky says as much in *On the Spiritual in Art*, addressing the subject of what he called pictorial "harmonization" in modern art:

It is perhaps with a sad envy . . . that we listen to the works of Mozart. . . . [W]e hear them like the sounds of another, vanished, and essentially unfamiliar age. Clashing discords, loss of equilibrium . . . opposites and contradictions—this is our harmony. Composition on the basis of this harmony is the juxtaposition of coloristic and linear forms that have an independent existence as such, derived from inner necessity, which create within the common life arising from this source a whole that is called a picture. ⁵⁶

There is a rather touching sense of nostalgia here for an earlier but now "essentially unfamiliar age" of tonality, as there is in the final number of *Pierrot lunaire*, with its breath of an "ancient scent from fabled times" at the hinted reappearance of tonal elements. Nonetheless, Kandinsky, emulating Schoenberg, embraces the new era of "clashing discords" and of harmonically "independent" forms.

This was a theme pursued throughout the artist's maturity, and which found its most cogent expression in the Bauhaus years. The idea of the "independence" of forms from each other corresponded in his mind to the perceived "independence" of the individual instruments in an atonal Schoenberg work, freed from the fetters of traditional harmony; this is in fact the point that Kandinsky seized upon in his very first letter to Schoenberg, quoted earlier ("the independent life of the individual voices in your compositions is exactly what I am trying to find in my paintings"). And he reiterated the point in his comment on the Second String Quartet in On the Spiritual in Art, seeing in the Quartet the rise of "discordance" and the "complete independence of each of the separate elements." The tension between harmonically independent forms is the working definition of dissonance in Kandinsky's thinking. He elaborated on this definition in drafting his "Bauhaus Book," Point and Line to Plane, for as he said of that treatise: "There, I write at length about the tensions between different elements . . . one's 'conception' is not just an external, 'pictorial' idea of beauty, but is bound up inextricably with these tensions within different elements."59 These inner tensions gave rise to "more inner possibilities . . . which is why I place particular value upon the living experience of 'tensions.' "60 Thus he could claim that in teaching drawing, "objects are regarded exclusively in terms of tensions between forces," and that "the teaching of drawing at the Bauhaus is an education in looking, precise observation, and the precise representation not of the external appearance of an object, but of constructive elements, the laws that govern the forces (= tensions) that can be discovered in given objects." *Point and Line to Plane* exemplifies this pedagogy of dissonant inner tensions. Taking the harmonics of music as its guide, it attempts to explain step by step just how the tension between the basic pictorial elements come to exteriorize, and make visible, the dynamic of clashing interior forces that amounts to the creative artist's inner necessity.

In the pursuit of art's all-important inner necessity, Schoenberg was the exemplar, for as Kandinsky wrote of him in *On the Spiritual in Art*: "On the path of internal necessity, he has already tapped the veins of gold of the *new beauty*. Schoenberg's music leads us into a new realm, where musical experiences are no longer acoustic, but *purely spiritual*. Here begins the 'music of the future.' "62 The composer thus fulfilled Kandinsky's prescription for artistic and indeed divine creation, conceived as the act of externalizing the inner necessity of clashing elements, that was quoted earlier: "Technically, every work of art comes into being in the same way as the cosmos—by means of catastrophes, which ultimately create out of the cacophony of the various instruments that symphony we call the music of the spheres. The creation of the work of art is the creation of the world."

What Kandinsky took from music theory was precisely the idea that art is the exteriorization of inner tension, on the grand model, rooted in physics, of the unfolding of the harmonic series from a single note. So too, in the creation of the world, the unity of pure potential divides itself up to create the rich multiplicity of the kinetic world. On this cosmic, musical model, Kandinsky decided to unpack the point's inner stresses in the opening pages of his book and derive from it a whole complex of structural, tensile relations.⁶³

The Ambiguities of the Circle

In *Point and Line to Plane*, Kandinsky confirms the cosmic implications of his system of balancing tensions by including not simply an illustration of a cluster of dots in a pictorial composition, but an illustration of a star cluster as well (figures 4.5 and 4.6). In this instance, the balancing tensions are the gravitational forces governing the motion of heavenly bodies. As in Kandinsky's portfolio of graphic works called *Little Worlds*, these images become abstracted evocations, or possibly diagrams, of cosmic realms.

Creating planetary systems becomes the role of the circle in Kandinsky's art. The circle is the key shape in his geometric abstractions of the Bauhaus period, coincident with his writing of *Point and Line to Plane*. He thought of the circle not only as a geometric figure, but as a player in a drama of creation, a primordial character; he writes, for instance, of the growing tension between converging forms in an abstract painting: "The contact between the acute angle of a triangle and a circle has no less effect than that of God's finger touching Adam's in

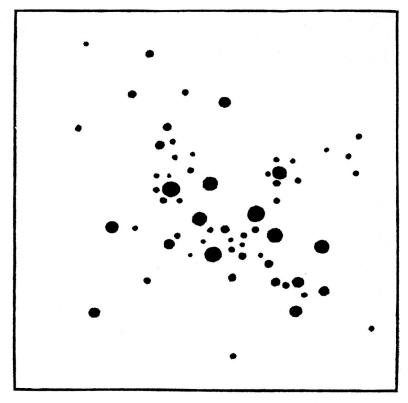


Figure 4.5. Array of points exemplifying "cool tension toward the center" of a picture plane. (From *Point and Line to Plane*, 1926)

Michelangelo."⁶⁴ Casting the geometric figure of the circle in a scene of Creation came naturally.

With its rich ambiguity, Kandinsky loved the circle above all other forms. As he wrote in 1929: "If I have, e.g., in recent years so frequently and so enthusiastically made use of the circle, the reason (or the cause) is . . . my own extreme sensitivity to the inner force of the circle in all its countless variations. I love the circle today in the same way that previously I loved, e.g., horses—perhaps even more, since I find in circles more inner possibilities, which is the reason why the circle has replaced the horse." Kandinsky praises the circle's "inner force" because it epitomizes his idea of compositional tension. For as he writes in *Point and Line to Plane*, "The point is a tiny world . . . its concentric tension betrays its inner resemblance to the circle." The circle becomes the most important shape in his Bauhaus work (supplanting the horse-and-rider so often seen in the earlier Blue Rider period) because it is the form most like the primal, all-generating



Figure 4.6. Star cluster of Hercules. (Astronomical photograph from *Point and Line to Plane*, 1926; originally from *Newcomb-Engelmanns Popul. Astronomie*, Leipzig, 1921, p. 294)

point—specifically in its concentric, perfectly balanced inner forces, in its creative potential. It is the point writ large.

And so, having constructed his universal grid of tensions in *Point and Line to Plane*, Kandinsky goes on immediately to extrapolate from his square diagram to the circle (see figures 4.7 and 4.8). He invites the reader to slowly retrace the outline of the circle and thereby sense its changing tensions in moving from quadrant to quadrant. Such an exercise makes it plain that circularity is the perfect metaphor for the grid's properties as a whole, since in its rolling dynamic the circle simultaneously balances all the grid's compositional tensions within itself. In a remarkable letter to Will Grohmann, Kandinsky identified the circle as this great locus of inner tensions: "[T]he circle . . . is a link with the cosmic. . . . Why does the circle fascinate me? It is . . . simultaneously stable and unstable . . . a single tension that carries countless tensions within it. The circle is the synthesis of the greatest opposites. It combines the concentric and the excentric in a single

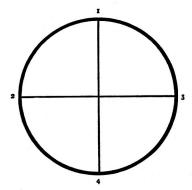


Figure 4.7. Circle divided into quadrants. (From Point and Line to Plane, 1926)

form, and in balance."⁶⁷ Among its many emblematic qualities, then, the circle embodies, in perfectly balanced form, the tensile dynamics of the picture plane. In this overarching structural function, its "link with the cosmic" is obviously implicated, for as scholars have pointed out, Kandinsky's lofty conception of the circle during this period bears striking affinities with the three circles that give form to the Beatific Vision at the end of Dante's *Paradiso*.⁶⁸

In encompassing these "cosmic" dynamics via the music of the spheres, the circle symbolizes the circularity both of the octave and of traditional harmonic motion. The value Kandinsky placed on circularity, too, owes much to Schoenberg. In Theory of Harmony, Schoenberg wrote in biblical terms of the allimportant fundamental tone, "He is the Alpha and Omega," 69 alluding to the way that its harmonics generate all the other notes, but also to its related role as the origin and goal of harmonic motion, since, traditionally, harmonic motion has been conceived as in essence a circular journey away from and back to the tonic. But Schoenberg had of course given familiar ideas of circular motion a radical new turn, complicating one's sense of what "circularity" can be. For overlaid on the "circular journey" image is another one, a linear model of a composition as a straight-line movement from point A to point B, with a clear sense of "arrival" or "closure" being the desired terminal effect. It is of course this linear sense of harmonic progression that Schoenberg largely does away with, replacing it with a radical new notion of a composition as being "circular" in the novel sense of remaining unresolved, without the harmonic closure of a point of arrival. Accelerating the loosening of tonality already evident in Wagner's Tristan und Isolde, with its "endless melody" delaying the long-anticipated resolution, Schoenberg went on to dissolve tonality altogether and thus make "nonresolution" a goal of musical structure. As Schoenberg wrote in Theory of Harmony: "The ceremonious way in which the close of a composition used to be tied up, bolted, nailed down, and sealed would be too ponderous for the present-day sense of form to

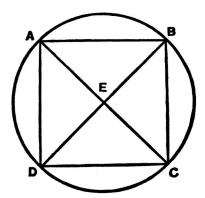


Figure 4.8. Square within a circle. (From Point and Line to Plane, 1926)

use it....[In] the sense of form of the present... the analogy with infinity could hardly be made more vivid that through a fluctuating, so to speak, unending harmony."⁷⁰

This was the importance, too, of the ambiguity of the circle to Kandinsky: Though complete and seemingly finished in itself, it paradoxically remained forever suspended and unresolved. As Kandinsky wrote in his very first letter to Schoenberg (quoted earlier), he understood free atonality to be a way of composing that granted the individual parts the autonomy to hold their own-to retain their independent identities in a piece without being bound together in a march toward terminal resolution. Graphically, avoiding resolution is what the circle, too, is all about: It replaces the stolid stability of the square with a flowing round of endlessly changing tensions. That is why Kandinsky moved on to the circle as the true culmination of Point and Line to Plane, after establishing the properties of the picture plane in his square-based diagrams. It becomes in its perfect balance of tensions a kind of emblem of the everlasting dynamics of the whole. (The completeness of the circle in this respect resembles Schoenberg's later sense of the completeness of the tone row; the circle, like the "perfect" tone-row that Schoenberg found for Moses und Aron, is a little piece of infinity.) For such reasons, Kandinsky speaks with awe of the "great circle, like a snake biting its own tail (the symbol of infinity and eternity)."71

The Floating Orb

What Kandinsky most wanted to do with his system of harmonics, finally, was, as he put it, to create "floating sensations" in pictorial space.⁷² He especially wanted to float the form of the circle, or the orb, as a token of celestial aspiration, of the wish never to come back down to earth.

In this too he was indebted to Schoenberg, for one of the most celebrated effects achieved by the Second String Quartet is its sense of release from the gravitational grip of tonality. Throughout the literature on Schoenberg, a recurrent metaphor insists that he created a feeling of "weightlessness" at this defining moment in his move toward atonality. In a scholarly context, for example, Walter Frisch has written persuasively of escaping "gravity" and of the "floating" figure in this movement. 73 Glenn Gould, too, wrote that "in the final movement of this Quartet, [Schoenberg] began, most tentatively, to explore the uncharted cosmos which he was sure existed beyond the gravitational pull of tonality."⁷⁴ So widely is this accepted as the work's effect that when you open up the liner notes to a commercial recording of the Second String Quartet, you are told that in the last movement, "Now there is no key signature at all, and the music begins to explore a weightless harmonic world, which the voice enters with the words 'I feel the air of another planet.' "75 At its emergence, atonality thereby sets off, in effect, for another world—for a different floating orb. 76 After hearing the Second Quartet, Kandinsky, too—ultimately in his geometric abstractions of the Bauhaus period⁷⁷—sought to achieve the seeming weightlessness of orbiting planetary spheres.

To make this possible, Kandinsky first keenly observes how gravity governs a picture plane. He recognizes an intrinsic sense of up and down in the picture, increasing the subtle differentiation of separate tension values across the surface. "Above" on the grid is associated with "heaven"—and with "a feeling of lightness, of emancipation, and ultimately, of freedom," though "each of these qualities produces overtones having in each instance a slightly different coloration."78 "Below" is associated with "earth," with "density, weight, bondage." When Kandinsky makes the top "light" and the bottom "heavy," he grounds the picture in the ordinary bodily experience of up and down. As he writes: "The fact that every living being stands and must necessarily remain in a constant relationship to 'above' and 'below' applies equally to the P[icture] P[lane], which is itself a living being as such."80 The association of "down" with the earth of course relates to the way that the floor vibrates with the lowest bass notes, and with how the overtone series arises out of the lowest note or fundamental. Kandinsky then complements this vertical enhancement of the tensions of the picture plane by addressing the horizontal, and insisting that, like a human being, the picture plane has natural left and right values, just as someone will ordinarily be stronger on one side, being, say, right-handed.81 With both coordinates—horizontal and vertical, or range and domain—endowed with varying degrees of tension, Kandinsky's harmonic grid is complete, and he diagrams the full distribution of weights, quadrant by quadrant, with the lower right the heaviest-laden and the upper left the freest (figure 4.9).

Having made the canvas into a little anthropomorphic world governed by its own forces of gravity, its own complex system of inner tensions, Kandinsky then

uses it to balance contrary forces and achieve a kind of weightlessness. With the Schoenbergian lesson of unresolved, "floating" tension in mind, he "floats" the form of the circle, his own emblem of nonresolution, in such a way as to suggest the picture plane's "indefinable space."82 In a later essay, he hints at how this goal was accomplished, by drawing attention to the difference in compositional tension between placing a blue circle in the upper left quadrant and placing it in the lower right: "In one of my books [Point and Line to Plane] I have attempted to give an analysis of the 'tensions' of the empty canvas, that is, of the latent forces inherent in it, and I think I have arrived at several just definitions of the essentially different tensions of the top and bottom, of the right and the left. A blue circle set at the top left-hand corner of the canvas is not at all the same as one set at the bottom to the right—the weight, the size, the intensity, the expression are different."83 He had already exploited just such a compositional dynamic in the painting Several Circles (Einige Kreise) of 1926 (figure 4.10), which actually does place the largest circle in the upper left quadrant. The placement there—with the largest and "heaviest" circle-form in the painting buoyed up by being put in the "lightest," "freest" compositional area, the upper left—produces one of the most perfect "floating," or gravity-free, effects that the artist achieved. Floating in the deep space of a dematerialized picture plane, the circle precisely fulfills the goal of the last pages of Point and Line to Plane, where Kandinsky elaborates on the idea that "the point . . . is capable of freeing itself from the surface and 'floating' in space."84 On the two-dimensional picture plane, the circle takes on the role of a celestial orb hovering in an interplanetary void.

Several Circles is the most famous of Kandinsky's Circle paintings of the mid- to late 1920s. The group is especially significant in Kandinsky's oeuvre since his very first fully abstract painting was probably their precursor, *Picture with a Circle* of 1911, 85 suggesting that something essential to his idea of abstraction inhered in that form. Several Circles is remarkable among Kandinsky's 1920s

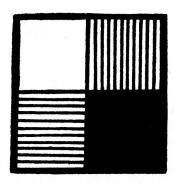


Figure 4.9. Distribution of weights in a square. (From Point and Line to Plane, 1926)

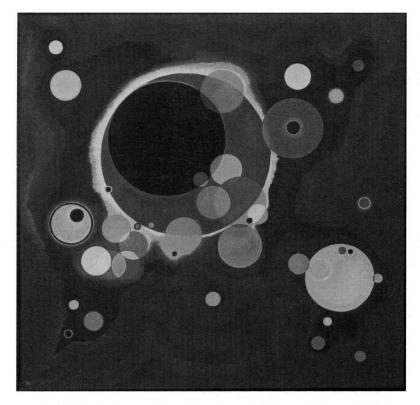


Figure 4.10. Vasily Kandinsky. Several Circles (Einige Kreise). January–February 1926. Oil on canvas, $55\frac{1}{4} \times 55\frac{3}{8}$ inches (140.3 × 140.7 cm). The Solomon R. Guggenheim Museum, New York. Gift, Solomon R. Guggenheim, 1941 (41.283)

Circle paintings, however, in at least two pertinent respects. First, it is considerably darker in tonality than most of the others; indeed in reproduction it often appears to have a black background, although in fact its "sky" is a subtly modulated field of dark blue, with irregular "cloudy" areas surrounding some of the orbs. And second, although almost all of the Circle paintings show overlapping circles in configurations suggesting planets and their satellites revolving around each other, *Several Circles* is extremely unusual in showing what appears to be an eclipse: A radiant corona of light surrounds the largest circle, evidence of a sun not quite obscured behind it, despite the resulting umbra that accounts for the general darkness of the image. We are herein presented not only with a diagram of an imaginary solar system but also with a specific moment of planetary alignment, a point in time when three heavenly bodies in a gravitational system are all on a single line with each other, as the sun, moon, and earth are aligned during a

solar or lunar eclipse (a phenomenon technically known as syzygy). It is a momentary consonance, but one on a cosmic scale—the perfect "triadic" harmony of three heavenly spheres.

The transitory moment of total eclipse, of syzygy, demonstrates for the earthbound observer the underlying principles of celestial order, bodying them forth with a rare geometric clarity that can be apprehended by the unaided eye. So although such an image as Several Circles may seem like a kind of resolution, it is the kind that in its brief, almost "snapshot" quality serves only to highlight the sense of the eternal nonresolution of the revolving spheres. This momentary congruence offers a glimpse of the harmony governing the heavenly bodies in their orbits. Several Circles thus encapsulates the larger dynamic of the system—an ideal demonstration of the "independence" of the active forms in tension which create "a whole that is called a picture." In doing so, it presents an ambiguity of the circle that we might well identify with the sense of departure for another planet in the Second String Quartet: an effect the opposite of closure—a celebration, rather, of the world's unresolved tensions and unbounded harmonic possibilities. The painting is, in other words, an emblem of the music of the spheres—an emblem constructed in part out of what Kandinsky understood to be Schoenberg's principles of composition.

Notes

- 1. *Kandinsky: Collected Writings on Art*, ed. Kenneth C. Lindsay and Peter Vergo (1982; rpt., New York: Da Capo, 1994), p. 360.
- 2. Ibid., p. 364. In reviewing the early stage of his career represented by the "Moscow hour," Kandinsky was recalling his youthful enthusiasm for the Wagner of Lohengrin, an opera whose knights in shining armor reflected medieval, chivalric subject matter similar to that of some of Kandinsky's own early work, such as Riding Couple (1907), in addition to the synaesthetic concerns of the Moscow descriptive passage. But soon, as Kandinsky himself notes, he realized that the central works for him would be the Ring and Tristan und Isolde (see Collected Writings on Art, p. 889, n. 24). His feelings about Wagner were deeply ambivalent, however, as is evident from his Almanac essay on stage composition, and he came to have something like contempt for the programmatic or illustrative element in composition.
- 3. Arnold Schoenberg, Wassily Kandinsky: Letters, Pictures, and Documents, ed. Jelena Hahl-Koch, trans. John C. Crawford (London and Boston: Faber & Faber, 1984), p. 75; on this episode, see pp. 73–85, 138–40. On the relations between the composer and the painter, see also Konrad Boehmer, ed., Schönberg and Kandinsky: An Historic Encounter (Amsterdam: Harwood

Academic Publishers, 1997); and Dore Ashton, "Arnold Schoenberg's Ascent," chapter 5 of *A Fable of Modern Art* (1980; rpt., Berkeley, Los Angeles, and Oxford: University of California Press, 1991), pp. 96–120.

- 4. Arnold Schoenberg, Wassily Kandinsky, p. 21.
- 5. See Peter Vergo, "Music and Abstract Painting: Kandinsky, Goethe, and Schoenberg," in *Towards a New Art: Essays on the Background to Abstract Art, 1910–20* (London: Tate Gallery, 1980), pp. 41–63. See also the editors' comments in *Collected Writings on Art*, p. 116.
- 6. Collected Writings on Art, p. 260.
- 7. Hermann Helmholtz, *On the Sensations of Tone, as a Physiological Basis for the Theory of Music* (1862, 2nd ed. 1877), trans. Alexander J. Ellis (New York: Dover, 1954), p. 229.
- 8. Republic, 614a–631d. See Gary Tomlinson, Music in Renaissance Magic: Toward a Historiography of Others (Chicago and London: University of Chicago Press, 1993), pp. 67, 69.
- 9. August 1906; quoted in Peter Vergo, *Art in Vienna, 1898–1918: Klimt, Kokoschka, Schiele, and Their Contemporaries* (London: Phaidon, 1975), p. 17. Schoenberg draws attention to the transcendence of "the corporeality of earthly insufficiency" at the end of Mahler's Eighth Symphony in his essay "Gustav Mahler," first drafted in 1912 (the year after Mahler's death) as a talk and included in its final form in the collection *Style and Idea: Selected Writings of Arnold Schoenberg*, ed. Leonard Stein, trans. Leo Black (Berkeley and Los Angeles: University of California Press, 1984); see p. 469. See also the discussion of Schoenberg vis-à-vis Mahler's Eighth in Jan Maegaard, "Schoenberg's Incomplete Works and Fragments," in Juliane Brand and Christopher Hailey, eds., *Constructive Dissonance: Arnold Schoenberg and the Transformation of Twentieth-Century Culture* (Berkeley, Los Angeles, and London: University of California Press, 1997), pp. 140–41.
- 10. From the final scene of Goethe's Faust, Part II.
- 11. A friend from Schoenberg's Los Angeles years, Walter Rubsamen, commented: "All in all his credence in numerology befits the character of a man who seems in many ways to have been a reincarnation of the Gothic philosopher speculating about mathematics, astronomy, and the music of the spheres" (quoted in Ashton, *A Fable of Modern Art*, p. 101).

12. After illuminating Schoenberg's interest in this subject, Jamie James (*The Music of the Spheres: Music, Science, and the Natural Order of the Universe* [New York: Copernicus, 1993]) takes the surprising tack of turning to Paul Hindemith's later opera and symphony on Johannes Kepler, called *The Harmony of the World (Die Harmonie der Welt)*, as the culmination of his chapter "Schoenberg and the Revival of the Great Theme," and quotes Hindemith's comment in *The Craft of Musical Composition (Unterweisung im Tonsatz)* of 1937/39: "If we think of a series of tones grouped around the parent tone . . . as a planetary system, then C is the sun, surrounded by its descendant tones as the sun is surrounded by its planets. . . . [T]he intervals correspond to the distances of the various planets from each other" (p. 227).

On Hindemith's association with the Bauhaus via his score for Oskar Schlemer's *Triadic Ballet* of 1926 (the focal year of the present essay), see Glenn Watkins, *Pyramids at the Louvre: Music, Culture, and Collage from Stravinsky to the Postmodernists* (Cambridge, Mass., and London: Belknap Press of Harvard University Press, 1994), pp. 310–22.

13. Collected Writings on Art, p. 206.

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- 14. From Stefan George's poem "Transport," or "Transcendence" ("Entrückung"), in *The Seventh Ring (Der siebente Ring)*, published in 1907.
- 15. See Magdalena Dabrowski, *Kandinsky: Compositions* (New York: The Museum of Modern Art, 1995). Kandinsky produced eleven Compositions over the course of his career. *Composition 6* (State Hermitage Museum, St. Petersburg) and *Composition 7* (Tretyakov Gallery, Moscow), both of 1913, are the grandest from the expressionist period and are widely acknowledged to be among the artist's supreme achievements, while the geometric period witnessed the much more serene *Composition 8* (Solomon R. Guggenheim Museum, New York) of 1923.
- 16. Collected Writings on Art, p. 373
- 17. Quoted in Nicholas Tamperley, *Haydn: "The Creation"* (Cambridge and New York: Cambridge University Press, 1991), p. 82. As another commentator has written, "This dawning of light at God's behest is achieved with the lapidary simplicity typical of Haydn—a shift from C minor via F minor and the dominant seventh of C to the brightest C major *fortissimo* in music history" (Karl Schumann, notes included with Eugene Jochum's 1966 recording of *The Creation* [Philips 426 651-2], p. 8).

- 18. Nicholas Cook, *Beethoven's Symphony No. 9* (Cambridge and London: Cambridge University Press, 1993), p. 72.
- 19. Richard Wagner, "Beethoven's Choral Symphony at Dresden, 1846," in *Pilgrimage to Beethoven and Other Essays*, trans. William Ashton Ellis (Lincoln and London: University of Nebraska Press, 1994), p. 252. See also Cook, *Beethoven's Symphony No. 9*, p. 72. In contrast, however, Beethoven's uncomfortably attenuated setting of Schiller's words, "Brothers! Above the canopy of the stars, there must dwell a loving Father! Beyond the stars he must dwell," can be interpreted as "the very embodiment of cosmic emptiness" (Cook, p. 104).
- 20. See James, The Music of the Spheres, p. 176.
- 21. *The "Blaue Reiter" Almanac*, ed. Wassily Kandinsky and Franz Marc, new documentary edition, ed. Klaus Lankheit (New York: Da Capo, 1974), p. 137.
- 22. See Watkins, Pyramids at the Louvre, p. 379.
- See Schoenberg, Style and Idea, pp. 214–15, 223; Alexander L. Ringer, Arnold Schoenberg: The Composer as Jew (Oxford: Clarendon Press, 1990), pp. 75–77; and Carl Dalhaus, "The Fugue as Prelude: Schoenberg's Genesis Composition, Op. 44," in Schoenberg and the New Music, trans. Derrick Puffett and Alfred Clayton (Cambridge and New York: Cambridge University Press, 1988).
- 24. The "Blaue Reiter" Almanac, p. 112.
- 25. Ibid., p. 163.
- 26. Ibid., p. 170.
- 27. Arnold Schoenberg, Wassily Kandinsky, pp. 27–28; see p. 172 for Schoenberg's inscription on the copy of *Theory of Harmony* sent to Kandinsky in December 1911.
- 28. Collected Writings on Art, p. 125.
- 29. Published by Verlag Albert Langen, Munich, as the ninth in the series of "Bauhaus Books" produced under the editorial direction of Walter Gropius and László Moholy-Nagy.

- 30. The "Blaue Reiter" Almanac, p. 90.
- 31. Arthur Schopenhauer, *The World as Will and Representation* (1818, 2nd ed. 1844, 3rd ed. 1859), trans. E. F. J. Paine (New York: Dover, 1966), vol. 1, pp. 262–63.
- 32. Ibid, p. 262.
- 33. Ibid., p. 258.
- 34. Libretto for *Die Jakobsleiter* (trans. Lionel Salter), included with the 1980 Pierre Boulez recording (Sony SMK 48 462), p. 23. Another translation appears in James, *The Music of the Spheres*, p. 220.
- 35. Schopenhauer, The World as Will and Representation, p. 265.
- 36. Warren Darcy, Wagner's "Das Rheingold" (Oxford: Clarendon Press, 1993), p. 78.
- 37. Ibid., p. 86.
- 38. Theodor Adorno, *In Search of Wagner* (1952), trans. Rodney Livingstone (London and New York: Verso, 1991), p. 106.
- 39. Arnold Schoenberg, *Theory of Harmony* (1911), trans. Roy E. Carter (Berkeley and Los Angeles: University of California Press, 1983), p. 20.
- 40. Ibid., p. 57.
- 41. See *Collected Writings on Art*, p. 92. Excerpts from the article appeared as program notes at the January 1911 concert that Kandinsky attended, reprinted from the original publication of "On Parallel Octaves and Fifths" in the Berlin journal *Die Musik* in February 1910. (The article was later incorporated into *Theory of Harmony*.) Kandinsky made his Russian translation for the catalogue of V. A. Izbedsky's exhibition *Salon* 2.
- 42. Schoenberg, *Theory of Harmony*, p. 313. It is not surprising that a brief discussion of the overtone series finds its way into the *Almanac* itself as well, in Sabaneiev's article on Scriabin; see *The "Blaue Reiter" Almanac*, p. 134.
- 43. See the discussion of "inner necessity" in Ashton, *A Fable of Modern Art*, pp. 104–5.

- 44. Schoenberg uses the example of the notes of the horn in explaining the overtone series (*Theory of Harmony*, p. 23). In this connection, and in view of Kandinsky's involvement with apocalyptic themes, one might note that the trumpet of the apocalypse (alluded to in Kandinsky's *Composition 5* of 1911) calls forth the End of Days precisely because the natural (i.e., valveless) trumpet is limited to these harmonic notes (the so-called trumpet scale). Making audible the physics of the world, it is thus the appropriate instrument to announce the Last Trump. On the natural trumpet, see Joscelyn Godwin, *Harmonies of Heaven and Earth: Mysticism in Music from Antiquity to the Avant-Garde* (London: Thames & Hudson, 1987; rpt., Rochester, Vt.: Inner Traditions International, 1995), p. 172.
- 45. Collected Writings on Art, p. 780.
- 46. Ibid., p. 565.
- 47. Ibid., p. 816.
- 48. Ibid., p. 540.
- 49. Ibid., p. 618.
- 50. Ibid., p. 551.
- 51. Ibid., p. 582.
- 52. See Rosalind Krauss, "Grids," in *The Originality of the Avant-Garde and Other Modernist Myths* (Cambridge, Mass.: MIT Press, 1986).
- 53. Collected Writings on Art, p. 582.
- 54. Ibid., 661. On Kandinsky's encompassing use of the term *Grundfläche* to denote picture plane, ground plane, surface, and so on in different contexts, see the editors' discussion of the abbreviation "PP" in their preface to *Collected Writings on Art*, p. 5.
- 55. Ibid., p. 662.
- 56. Ibid., p. 193. The italicized words are emphasized in the original (though Kandinsky preferred to use extra spacing between the letters, rather than conventional italic type, for emphasis).

57. It is a commonplace that the "air of another planet" in the Second String Quartet finds its converse in the last number of *Pierrot lunaire*, where a hint of tonality infiltrates the musical setting of the words "O ancient scent from fabled times, / Once more you captivate my senses!" ("O alter Duft aus Märchenzeit / Berauschest wieder meine Sinne!") (from the 1884 French poem by Albert Giraud, translated by Otto Erich Hartleben and published in German in 1911).

In thinking about the "air" of another planet, perhaps we should also try to take into account Schoenberg's comment in Theory of Harmony that "music is comparable to a gas, which is itself without form but of unlimited extension" (p. 127). With this in mind, we might note that in comparisons between the two passages, from the Quartet and Pierrot, what has not been sufficiently appreciated is how a feeling of free-floating suspension as an analogue of lessened tonality is conveyed largely through the elusive sense of smell—linking the "air" of another planet and the "scent" of fabled times—exploiting the olfactory sense's dispersal of an object's physical location, and the limiting of our awareness of an object to only its invisible infiltration of the surrounding atmosphere. It may be worth noting that such a scattered suspension of an object's attributes in thin air was part of Picasso's conception of Cubism, when he said of the broken-up, faceted forms in one Analytic Cubist work: "All its forms can't be rationalized. At the time, everyone talked about how much reality there was in Cubism. But they didn't really understand. It's not a reality you can take in your hand. It's more like a perfume—in front of you, behind you, to the sides. The scent is everywhere, but you don't quite know where it comes from" (quoted in William Rubin, Picasso in the Collection of The Museum of Modern Art [New York: The Museum of Modern Art, 1972], p. 72).

- 58. Collected Writings on Art, p. 206.
- 59. Ibid., p. 739
- 60. Ibid., p. 740.
- 61. Ibid., pp. 728–29
- 62. Ibid., p. 149.
- 63. In using this notion of creation-by-harmonic-division in *Point and Line to Plane*, and generating a cosmos from its originary point, Kandinsky might as well be repeating the follower of Pythagoras who wrote this summary of a world generated from musico-mathematical principles: "The first princi-

ple of things is the One. From the One came an Indefinite Two.... From the One and the Indefinite Two came numbers; from numbers, points; from points, lines; from lines, plane figures; from plane figures, solid figures; from solid figures, sensible bodies. The elements of these are four: fire, water, earth, air... and out of them comes to be a cosmos, animate, intelligent, spherical, embracing the central earth, which is itself spherical and inhabited round about" (quoted in James, *The Music of the Spheres*, p. 39). The ancient philosopher saw a cosmos come into being though a progression, remarkably like Kandinsky's, from "point and line to plane."

- 64. Collected Writings on Art, p. 759.
- 65. Ibid., p. 740.
- 66. Ibid., pp. 546-47.
- 67. Will Grohmann, *Wassily Kandinsky: Life and Work*, trans. Norbert Gutermann (New York: Harry N. Abrams, [1958]), pp. 187–88.
- 68. See the editors' preface to Collected Writings on Art, p. 25.
- 69. Schoenberg, Theory of Harmony, p. 128.
- 70. Ibid., pp. 128–29. On the evasion of closure as an expressionist aesthetic strategy, see Mary Ann Caws, "Robert Motherwell: Working Through the Night," in David Rosand, ed., *Robert Motherwell on Paper: Drawings, Prints, Collages* (New York: Harry N. Abrams in association with the Miriam and Ira D. Wallach Art Gallery, Columbia University, 1997), pp. 82–92.
- 71. Collected Writings on Art, p. 189.
- 72. Ibid., p. 671; see the closing pages of the treatise, pp. 670–72.
- 73. Walter Frisch, *The Early Work of Arnold Schoenberg*, 1893–1908 (Berkeley, Los Angeles, and London: University of California Press, 1993), pp. 267–72.
- 74. Glenn Gould, "The Piano Music of Arnold Schoenberg" (1966), in *The Glenn Gould Reader*, ed. Tim Page (New York: Vintage, 1990), p. 124.
- 75. Paul Griffiths, notes included with the 1993 Arditti Quartet recording of the Second String Quartet (Montaigne Auvidis MO 782024), p. 25.

76. One might contrast the Second Quartet's sense of departure for unbounded realms, in the fourth movement, with the end of Berg's Violin Concerto (1935), which displays instead a sense of otherworldly *arrival*—of the dedicatee "angel" in Heaven—conveyed by the ambiguous reassertion of tonality via the quoted Bach chorale. The effect is quite unlike the whiff of tonality at the end of *Pierrot lunaire*, which remains a matter of wistful nostalgia for what is gone, rather than of arrival.

In a way, Berg's Violin Concerto thus undoes Schoenberg's cosmic revolution. Using not the epoch-making dissolution of tonal harmony but rather the reassertion (however ambiguous) of tonality to denote arrival in heaven, it almost seems to recall the somewhat backward-looking, harmonically comforting resolution of late Romantic works such as Richard Strauss's *Death and Transfiguration* and the transitional passage to the last movement of Mahler's Fourth Symphony, which conceive Heaven as consonance regained.

This is of course a feature of Berg's general relationship to Schoenberg, in the sense that "accessible" works like the Violin Concerto or the earlier *Wozzeck* (1923) make him a kind of tonal traitor to Schoenberg, though a beloved one. Perhaps we should therefore think of the aesthetic allegory of *Moses und Aron* (1930–32) in a new light. Schoenberg has long been thought to have projected himself into Moses the lawgiver, the misunderstood prophet proclaiming in a language none can understand, and who therefore speaks in *Sprechstimme*, rather than conventional sung melody. Then the mellifluous Aron—whose "expressive" melodic passages are, in contrast, easily understood by all, though he loses the radical essence of his brother's teaching—might easily be the Berg of the well-received *Wozzeck*.

- 77. Afterward, in Paris during 1934–44, Kandinsky's interest turned instead to the miniature cosmos of microbiology.
- 78. Collected Writings on Art, p. 639.
- 79. Ibid., p. 640.
- 80. Ibid., p. 639.
- 81. Assigning personal or moral values to left and right, as Kandinsky does, is an ancient practice, which survives in the etymological derivations of "sinister" from left-handed and "dexterous" with right-handed, as well as in religious imagery such as "the left hand of God" versus the act of blessing with the right hand.

- 82. Collected Writings on Art, p. 671.
- 83. Ibid., p. 824.
- 84. Ibid., p. 671.
- 85. Reproduced in color in Jelena Hahl-Koch, *Kandinsky* (New York: Rizzoli, 1993), p. 185.

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