
Leigh Clemons

The first two decades of the twentieth century were a time of change in both intellectual and popular conceptions of inhabited space. Challenges to Euclid's postulates of absolute geometric "form" led to new ideas about the structure and mutability of spatial dimensionality.¹ The effects of these new concepts on the art and literature of the period is evident in the work of science fiction author H.G. Wells, *Flatland* by Edwin A. Abbott, and the work of Cubist painters and sculptors.² In a subtler and more complex way, these ideas have a bearing on the contributions to the *Blaue Reiter* almanac of 1911/1914.³ Such theoretical parallels are particularly evident in its commentary on theatre, "On Stage Composition," and its theatrical piece, *The Yellow Sound*, both by Wassily Kandinsky.

Art and literary historians have long debated the effects of such concepts as "the fourth dimension" and "non-Euclidean geometry" on the work of Wells, Abbott, and the Cubists, but to my knowledge there have been few attempts to discern how, or even if, the members of the Blaue Reiter were attempting to alter the space of representation in their works.⁴ I propose to examine aspects of the theories of art, music, and theatre represented or discussed by Kandinsky and other members of the Blaue Reiter as a rupture of the idea of "absolute form" in mainstream art at the time, comparable to the fracturing of "absolute" space in non-Euclidean geometry, and as an expansion of the parameters of artistic structure similar to the integration of a theoretical fourth-dimension into geometric theory.

Non-Euclidean geometry was named for its opposition to the postulates established by Euclid's "deductive system of geometry" in the *Elements* (ca. 300 B.C.), which had been the basis for considerations of space for over two thousand

---

Leigh Clemons is in the final year of her Ph.D. coursework at the University of Minnesota, Twin Cities. She has presented papers at the national conferences of ATHE, ASTR, and at the Mid-America Theatre Conference, and has been published in *Theatre Studies*. The presentation version of this paper was selected for the 1991 ATHE Theory and Criticism Debut Panel, while she was a student at Kent State University.
years. Euclid assumed, without proof, that certain theories about the nature of points, planes, and lines placed within space could be validated through a system of deductive reasoning based on space perceived as a flat planar surface. Under Euclid’s system, geometric shapes had absolute dimensions; for example, the sum of the angles of a triangle could only be 180 degrees.

The two major challenges to this theory in the nineteenth century were an 1829 article by Russian mathematician Nikolai Lobachevsky, and an 1854 speech before the faculty of the University of Gottingen by Bernard Riemann, a German. Both of these men saw space as a curved surface rather than a flat plane. In both cases, the differences between Euclid’s postulates and those of non-Euclidean mathematicians lay in how each viewed the structure of space itself.

While non-Euclidean geometry redefined the mathematical conditions that governed the scientific view of two and three-dimensional space, the geometry of N-dimensions was attempting to define the parameters of dimensions that existed outside of the range of human perception. Its theorems commonly dealt with explaining the existence of a fourth dimension, or hyperspace, parallel to the intersection of the three dimensions already part of our perception. The variables could be either temporal or spatial; however, most mathematicians were interested in the latter.

The concept of a spatial fourth dimension quickly worked its way into the social theory and popular literature of the late nineteenth and early twentieth centuries. Emile Durkheim, in The Elementary Forms of the Religious Life, made the "heterogenous", non-Euclidean nature of space part of his general theory of the social organism. Similarly, Henri Poincare’s theory of "visual", "tactile", and "motor" spaces postulates that sight, or "visual space", has two dimensions, and the beginnings of a third, but that "motor space" "would have as many dimensions as we have muscles". Science-fiction authors such as H.G. Wells and Edwin A. Abbott used and discussed both temporal and spatial representations of the fourth-dimension in many of their works, such as Wells’s The Time Machine (1984) and Abbott’s Flatland (1884).

On the artistic front, the Cubist movement attempted to extend the visual field to include a spatial fourth dimension, or, by merging time and space on canvas, to create a single viewpoint. They re-organized not only their perceptions of space, but broke with the "Euclidean" ways of representing that space. The Cubists also revised the concept of depth perception traditionally used in painting, altering the notion that art of necessity would "represent" anything, and transforming it into "a composition of forms on a flat surface."

The Blaue Reiter almanac was not only an attempt to expound their views on many forms of art and the people responsible for creating them; it also began to reconstruct the textual "space" of the medium in which the idea was produced.
In addition to the almanac, Der Blaue Reiter (Blue Rider) is most commonly identified with its Munich exhibitions of 1909 through 1911, which included paintings by August Macke, Franz Marc, Robert Delaunay, Arnold Schoenberg, and Wassily Kandinsky. The phenomenon, however, was much more than a series of artistic shows and critiques. "The ties were to reach from Paris to Moscow, and from Rome to Milan; music was to be represented on as international a basis as painting; art was to be face to face with religious movements." It was a transcontinental gathering of artists for a common goal, as the Russian painter Kandinsky observed:

Aside from this union of different countries for one purpose, which we regard as the highest, there was one thing that was new at this time: along with painters and sculptors, we also took in musicians, poets, dancers, and art theoreticians. That is, we sought to unite individual phenomena into one.

The addition of a "fourth dimension" of representation is in itself a redefinition of the aesthetic space.

The "one purpose" of which Kandinsky spoke seems to have been the reconstruction of "form" in art—painting/sculpting, music and theatre. The major hindrance to the expression of an artist's inner essence was the language imposed on him by tradition and convention: the seven-tone musical scale and triadic chords; "realistic", externally representative painting styles; and a theatre grounded in the privileging of the text. The Blaue Reiter artists broke traditional spatial boundaries by redefining not just the subject, but the means of conception and presentation of subjects, just as the non-Euclidean geometers redefined the entire shape of the plane rather than just the line. Thus, an infinite number of forms were possible, and all were equally valid.

For example, painting, to the Blaue Reiter essayists, becomes not a reconstruction of the canvas, but of how the canvas is filled by the artist. Many members of the group felt that Cubist art came closest to fulfilling their ideas. Especially admired was the Cubist painter Robert Delaunay, whose work, according to an almanac article by von Busse, was an example of a change in the "dynamics of space." Delaunay achieved this shift in spatial representation through the addition of a fourth dimension—movement:

[The change] is created by a proportionate distribution and correspondence of colors, as well as by curving lines corresponding to the motion. . . . The dynamics of space are created here by a latent movement of masses, not by objects frozen in postures of movement.
All the lines, even the streets of the town in the background, correspond to this movement.\(^{16}\)

Rather than attempting to recreate "exactly" a three-dimensional image within a two-dimensional space, Delaunay employs the use of four dimensions to convey the essence of a self-contained whole.\(^{17}\)

Similarly, the musicians who contributed articles to the almanac attempted to revamp musical space through alterations in the relationship of the words to the melody, and the conventional major and minor scales and chord structures of the music itself. Arnold Schoenberg asserts that it is not necessary to know the linguistic text in order to understand what the music is saying, and that no matter what part of a work of art one sees or hears, the message of the whole piece is present within it.\(^{18}\) Von Hartmann's and Sabaneiev's articles dealing with music equate a particular tone on the musical scale with a particular color. The alteration of the configuration between the textual "plane" and the musical "plane" results in a totally new conception of the shape of the space occupied by the work. This reconfiguration of the supposedly "absolute" relationship between text and music is, for example, a theoretical parallel to the work of non-Euclidean geometers attempting to refute the idea of an "absolute" geometric space.

Wassily Kandinsky employed this equation in *The Yellow Sound: A Stage Composition*, the one dramatic piece found in *Der Blaue Reiter*. In his essay, "On Stage Composition", Kandinsky states that drama of the nineteenth century was usually "a description of external life" and that "the spiritual life played a part only when it was connected with the external life. The cosmic element was entirely missing."\(^{19}\) He credits Wagner with attempting to connect the inner, abstract, spiritual element with the external representation, but claims that Wagner was mistaken "to believe that he had a universal method at his command. Actually, his method is only one of even more powerful possibilities of monumental art."\(^{20}\)

Kandinsky, like the other members of *Der Blaue Reiter*, believed that while the final goal of all art was the same—to impart knowledge by touching the human soul—the methods used to achieve this goal were as varied as the artists and their particular media.\(^{21}\) "Form is always temporal, i.e., relative, for it is nothing more than the means necessary today through which the present revelation makes itself heard . . . [t]herefore, we should not look for salvation in one form only . . . there may be many different forms at the same time that are equally good."\(^{22}\) Artistic movements formed, then, when "artists succumb[ed] to the spirit of a time, which forc[ed] them to adopt some forms that are related to each other and therefore share an external similarity."\(^{23}\) His own format for stage composition focused on the inner value of the piece as expressed by "the musical
sound and its movement . . . the physical-psychical sound and its movement expressed through people and objects . . . [and] the colored tone and its movement (the movement of color, said Kandinsky, was particular to the stage)." He intended *The Yellow Sound* to illustrate this type of synthesis.

*The Yellow Sound* consists of a series of six "pictures" which use shifting forms, colors, and sounds neither for the purpose of storytelling (this would be an external representation) nor to imitate or reproduce an already existing original. (This, according to Kandinsky, was another problem with Wagernian methodology.) The script for *The Yellow Sound* calls for the integration of offstage singing "arranged in such a way that the source . . . cannot be located"; brilliantly colored backdrops that can change color instantaneously; and such characters as "Intensely Yellow Giants", People in Flowing Robes, and People in "Many-Colored Tights". Their purpose is not to tell a literal or metaphorical story, but to convey the essence (in Kandinsky's opinion) of a "yellow sound."

This essence, a product of the inner spirit, was hidden behind matter, or form. It was imperative to Kandinsky that the form not obscure the creative spirit, but provide a pliable, flexible atmosphere for its expression.

The text for Picture 5 of *The Yellow Sound* contains several examples of Kandinsky's juxtaposition of color and music, its interaction with light, the body, and other dramatic elements within the stage space, and the subsequent creation of a wholistic articulation of that moment's inner essence or, in other terms, its "hidden construction." The intensity both of light and color are of utmost importance. Shifts in the color of the light on stage—from "cold red" to brighter yellow to "a white light, with no shadow"—and in the intensity of the music underscore the entrance of the People in Many-Colored Tights:

First come those in gray, then in black, in white, and finally in colors. The movements are different in each group: one walks fast, straight ahead; another, slowly as if with difficulty; a third now and then leaps joyously; a fourth looks around continually; a fifth advances in a solemn theatrical manner, arms crossed; a sixth walks on tiptoes, each with one palm raised, and so on.

The figures arrange themselves on stage in such a way that the composition is "neither 'beautiful' or definite" nor "in complete disorder. . . ." This picture remains in place for several moments. The bodies remain still, while the music changes tempo. Often, it "sags with fatigue". As it does, a form in white begins a "kind of dance" which consists of "vague but very rapid movements" with the arms or legs. "His tempo changes frequently, sometimes in unison with the music, sometimes not." The light changes from bright white to a mix of colors from different directions, then
all colors vanish. A dim white light fills the stage. In the orchestra, single colors begin to speak. Corresponding to each color sound, single figures rise from different places [with varied movements] . . . as they move, they look upward. Some remain standing. Some sit down again. After that, fatigue overwhelms them, and they all remain motionless.37

The performance possibilities alluded to in the text are vast, as are the theoretical implications. The heterogenous groupings of theatrical elements within The Yellow Sound form an ever-shifting pattern. The figures on stage are delineated by separate color, movement, and position, many of which are repeated several times, yet each is unique. The multiplicity of combinations possible within this environment constantly transcends and redefines its limits, as if a single geometric pattern was transmuted into a variety of new dimensions.

In addition, Kandinsky’s combination of color and sound in a non-representational format transgresses the boundaries of the traditional use of music both in dramatic composition and in the revolutionary Wagnerian operatic style. Simultaneous movement of sound, people, objects, and light transforms the stage into an amalgamation of media that best illustrates the author’s own inner voice. This is then presented to an audience, whose "complex of inner experiences" upon viewing the piece becomes, at last, the drama.38

The refusal to submit to a single, absolute form, in addition to Kandinsky’s desire to expand and revise the theatrical convention of surface representation, and his depriviledging of the text as the center of the piece, forms an artistic corollary to the theories of non-Euclidean geometry. His integration of color and music into the "text" of a dramatic work adds new dimensions to the theatrical space, just as the fourth dimension added new dynamics to perceptions of two and three-dimensional space.39

The work of the artists in Der Blaue Reiter mirrors the redefinition of abstract geometric space represented in non-Euclidean and N-dimensional geometries, as well as an overall interest in the reconfiguration of perception that became a driving force in social, scientific, and artistic theory at the end of the nineteenth century. Lobachevsky’s and Riemann’s distinct views of new mathematical boundaries, Durkheim’s "heterogenous" social atmosphere, and Kandinsky’s portrayal of art’s "essence" through deconstruction of the traditional two-dimensional relationship between color, sound, light, and the body were all attempts to alter the prevalent attitudes about spatial representation. Although none of the Blaue Reiter artists specifically attribute their shifts in thinking to this phenomena, there are parallels between the scientific principles of non-Euclidean and N-dimensional geometries, their sociological and literary applications, and the Blaue Reiter almanac. Exploration of these ideas has already occurred in the field of art in Linda Dalrymple Henderson’s rethinking of their possible influence upon Cubist painting techniques. Further investigation into the intersection between art—more specifically, the theatre of the first-wave avant garde—and
scientific theories of the late nineteenth and early twentieth centuries may yield
a more interesting and complex look at the ideologies and practices of these
movements.

Notes

1. Linda Dalrymple Henderson, *The Fourth Dimension and Non-Euclidean Geometry in Modern Art* (Princeton: Princeton UP, 1983). By the turn of the century, alternate ways of viewing space were not new; in fact, they appeared as early as 1829 with the publication of Nikolai Lobachevsky's article "On the Principles of Geometry".

2. Dalrymple-Henderson states elsewhere that popular artists, and the Cubist painters in particular, could not have been familiar with Einstein's theories of Special (1905) and General Relativity (1916), since they were not widely disseminated to a non-scientific audience until after 1916 [Linda Dalrymple-Henderson, "A New Facet of Cubism: 'The Fourth Dimension' and 'Non-Euclidean Geometry' Reinterpreted" *Art Quarterly* (Winter 1971)]. Additionally, Fred A. Wolf cites the physicists' meeting at the Hotel Metropol in Brussels as the beginning of widespread knowledge and acceptance of quantum theory and relativity [Fred A. Wolf, *Taking the Quantum Leap*, rev. ed. (New York: Harper, 1989) xiii. The spatio-temporal ruptures of Kandinsky's stage composition are part of the 'gap' created by the advent of multiple spatial viewpoints, but are not necessarily caused by the advent of the quantum relative universe. In fact, Kandinsky was troubled by the splitting of the atom, and he wrote in 1912 that "[t]he collapse of the atom was equated with the collapse of the whole world. Suddenly, the stoutest walls crumbled. Everything became uncertain, precarious and insubstantial" [Wassily Kandinsky, "Reminiscences", *Complete Writings on Art*, vol. 1 (Boston: G.K. Hall, 1982) 364.]

3. In his book on the *Blaue Reiter*, Paul Vogt states that the first issue was originally published in May 1912, then revised and re-issued in the summer of 1914 [*The Blue Rider* (Woodbury: Barron's, 1980) 34-35].

4. One extremely notable exception is Michal Kobialka's investigation of Kandinsky's construction/decomposition of a multi-dimensional "timespace" within *The Yellow Sound* through "'veiling' [unexpected placement of the object or blurring its outline], 'stripping' [simplification of the object to its outline], and repetition" of the "physical aspects." He locates these techniques within and without Kandinsky's theories (and those of others) of artistic 'synaesthesia'. [Michal Kobialka, "Theatre of Celebration/Disruption: Time and Space/Timespace in Kandinsky's Theatre Experiments" *Theatre Annual* (1990)].


6. In Lobachevsky's case, the curve was hyperbolic, resulting in triangles whose sum was less than 180 degrees; while Riemann's space was elliptical, containing triangles whose angles added up to greater than 180 degrees. For a more complete discussion of these theories, see Kern 132-33; Henderson, *Fourth 4-6*; and Max Jammer, *Concepts of Space: The History of Theories of Space in Physics* (Cambridge: Cambridge UP, 1969) 144-46.

7. Henderson, *Fourth 7-10*. Attempts toward physical representation of theoretical n-dimensional shapes as the "hypercube", or "tesseract", demonstrated the difficulties caused by an additional point of reference outside normal human perception. Drawings or models of theses objects were problematic, since they were two or three-dimensional representations of an unseen four-dimensional space and, therefore, incomplete representations of their form.

8. Durkheim claimed that if space consisted of a single, absolute perspective, then "it would be useless to coordinate the varied data of sensuous experience. to identify things in space it must be possible to place them differently . . . and so in every society space is heterogenous" [Emile Durkheim, *Elementary Forms of the Religious Life* (New York: 1965) 22, 32, 489-92].


15. Roger Allard cites Cubist art as a movement away from the illusionistic qualities of naturalism and impressionism because of its attempt to restore to painting "the knowledge of measure, volume, and weight" by rendering "simple abstract forms in defined relationships and proportions to one another" (Roger Allard, "On the Signs of Renewal in Painting", *Der Blaue Reiter Almanac* (New York: De Capo, 1974) 105).


17. von Busse 122.

18. Arnold Schoenberg, "The Relationship to the Text," *Der Blaue Reiter Almanac*, Wassily Kandinsky and Franz Marc, eds. (1914; New York: Da Capo, 1974) 94-95. Often, says Schoenberg, the meanings of the words are contrary to the essence conveyed by the music.


21. 190.


23. Kandinsky, "Form" 151.

24. Kandinsky, "Stage" 201.

25. To Kobialka, "Kandinsky’s attempt to expand the boundaries of synaesthesia" was "yet another form of distortion of the positivist [Euclidean] time chronology," echoing the Symbolist playwrights, whose works "facilitated..the formation [of] the mind’s dimension of timespace grounded in the spiritual, metaphysical, or unknown, rather than the material, world" (Kobialka 3).


29. 222.

30. In addition to *The Yellow Sound*, Kandinsky wrote three other "compositions" for the stage: *The Green Sound, Black and White,* and *Violet;* each of these, presumably, explored the inner value of color and sound from other viewpoints. None other than *The Yellow Sound* have been translated into English. [Peg Weiss, *Kandinsky in Munich: The Formative Jugendstill Years*, (Princeton: Princeton UP, 1979) 92].

31. Kobialka asserts that "rather than locating the objects in a three-dimensional space...suspended in time, he attempted to decompose [emphasis mine] their physical aspects...and reveal spiritual feelings that might otherwise go unnoticed... The ‘hidden’ construction would not only remove the object from the domain of the familiar and reveal reality beneath permanent structures, but also... would posit the spectator inside of the picture and force him/her to take part in the creative process of recomposition [emphasis mine] of familiar key motifs" (Kobialka 5).

32. Kandinsky, "Yellow" 221.

33. 222.

34. 222.

35. "Yellow".

36. 222-23.

37. "Yellow".
38. Kandinsky, "Stage" 205.
39. Kobialka has previously contended that *The Yellow Sound* "is [a] disruption [emphasis mine] of Euclidean space and Newtonian time sequence that in itself becomes a celebration, and which breaks away from time chronology by exposing objects, rather than human beings, as a subject matter" (Kobialka 3).
"The Southern Review is one of the last of the splendid near-certainties. Its unflamboyant commitment to established excellence, its welcome to the new, and its reliability have made it an all-but-imitable model."

Reynolds Price

CONTRIBUTORS TO THE NEW SERIES INCLUDE

A. R. Ammons • Amiri Baraka • Gerald Barrax • Ann Beattie • Wendell Berry • David Bradley • Cleanth Brooks • Hayden Carruth • James M. Cox • James Dickey • Denis Donoghue • Norman Dubie • Douglas Dunn • Martha Lacy Hall • Yusef Komunyakaa • A. Walton Litz • Robie Macauley • Bobbie Ann Mason • Jill McCorkle • Sandra McPherson • Heather Ross Miller • Robert Morgan • Toni Morrison • Gloria Naylor • Lewis Nordan • Joyce Carol Oates • Mary Oliver • Reynolds Price • Ishmael Reed • M. L. Rosenthal • Peter Schmitt • Mary Lee Settle • Louis Simpson • Lee Smith • W. D. Snodgrass • Wole Soyinka • Elizabeth Spencer • Eleanor Ross Taylor • Henry Taylor • Peter Taylor • Mona Van Duyn • Helen Vendler • Marilyn Nelson Waniek • Miller Williams • C. Vann Woodward • Charles Wright

Subscription order form for The Southern Review

Individuals: ___$18.00 (1 yr.) ___$32.00 (2 yr.) ___$45.00 (3 yr.)
Institutions: ___$35.00 (1 yr.) ___$55.00 (2 yr.) ___$80.00 (3 yr.)

For orders outside the U. S. add $3.00 per year for postage and remit in U. S. dollars drawn upon a U. S. bank.

Please enter my subscription to The Southern Review: (J.D.T.C.)

Name

Address

City/State/Province/Zip/Country

I enclose payment. Send a sample copy ($5.00 must accompany order).

Charge ___Visa ___MC Account No.

Expiration date Signature

43 Allen Hall, Louisiana State University, Baton Rouge, LA 70803-5005, USA