THE MUSICAL PHASE OF MODERN PAINTING.

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of
MODERN PAINTING

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by

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To ss. Cecilia and Luke.

For the joy of ear and eye,
For the heart and brain's delight,
For the mystic harmony
Linking sense to sound and sight: *

"Today a synthesis between the worlds of sound and appearance seems to be a possibility."--Paul Klee.

*Sacraments and other rites, The English Hymnal, no. 309.

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PREFACE.

Painting and music interest me very much. They are the twin summits of my artistic ambitions. In this thesis, I have tried to render intelligible to myself, in a very elementary way, the relationship between modern painting and music, and the development of painting towards the condition of music. This is not to deny that other valid parallels may be drawn between music and, say, sculpture, architecture, poetry, or kinetic art--such relationships do, of course, exist--but they do not seem to have been necessary to each other's evolution as painting and music were. I use the past tense advisedly because I cannot discuss with any semblance of competence developments in the arts of the present day, nor discern in them the trends likely to influence the arts of the future.

The interfusion of painting and music is a phenomenon of modern art. Because the most influential ideas in twentieth century painting and music have their origins in the period immediately prior to the First World War, I have centralized my area of study there. There the patterns for subsequent developments in modern art were set.

My aim has been to touch on the main areas of contact between the two arts in those years.

Not for a moment do I regard this thesis as having, in any way, exhausted the topic. It merely "scratches the surface," so to speak--it is a beginning.

I should like to thank my friends for their interest, encouragement, advice, and practical assistance. To the painters and composers--musicians all!--whose ideas laid the foundations of this thesis, and whose works sustained me in its darkest moments--my gratitude.

J. N. M.

INTRODUCTION.

Music and painting are, materially speaking, very different arts. In the former a temporally presented mode of expression addresses itself to the ear, in the latter a spatially presented mode addresses itself to the eye, and they would not appear to admit of any comparison. Modern painting interfuses the dimensions of time and space, challenging the traditional distinctions between temporal and spatial arts. A kind of multi-dimensional art results.

Gauguin and van Gogh believed that painting promised to become more like music. It has. Modern painting has entered a "musical" phase--for the painter has turned composer and performer, and his works owe an obvious debt to the sister art.

Music, in turn, has drawn from the painter's domain such material as has considerably enriched the language of sound. In no previous age were they so interdependent, and this assertion is confirmed in the astonishing parallels between them before the First World War, when the notion of relationship between painting and music was at its zenith.

"Musicality" in modern painting associated with a tendency towards abstraction. The nearer painting

approaches a pictorial art which makes no specific reference to nature, the more nearly must it align itself with an autonomous and independent system such as music. Painting and music have come to share fundamental principles of organization.

What makes a painting "musical"? A musical painter? So it would seem. A number of musicians and composers have abandoned promising musical careers in order to take up painting--among them Ciurlionis, Klee, Feininger, Russolo, and Larry Poons. Other painters have deemed it necessary to acquire musical skills. Such painters as these were "musically" committed in their works: music instructed their visual sense and infommed their expression.

But not all modern painting could be described as "musical". "There are musical pictures, just as there are unmusical ones, pictures that are positively hostile to the whole notion of music."[1] (By the same token, there is also music "positively hostile to the whole notion of music, and consequently, to the whole notion of modern painting.)

Some paintings which invite musical association are ambiguous and confusing. They may remind us of music, they may not. One cannot hear a painting or see music save in the experience of abnormal sensory agitation. However much synaesthetes would persuade us to the contrary, painting is not music.

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[1]Anil de Silva, Otto von Simson, Roger Hinks, Man through his Art: Music (London: E. P. Publishing Co. Ltd., 1964), p.

The relationship between painting and music is best explained in terms of their parallel developments, and in order to do this I have looked for corresponding gestures in the two arts. Painting arrived at abstraction by analogy with music (a useful ally, since music is fundamentally non-representational.)

Before the First World War (and for a short while after) painters and composers were attuned to each other in a way that had few precedents in history: a strong bond was cemented between them, and there were a great many areas in which they met. All subsequent developments in painting and music refer, in some way, to the innovations and inventions of the musical phase of modern painting.

Chapter 1.

VARIATIONS ON A THEME.

> Colours may mutually relate like musical concords for their pleasantest arrangement; like those concords mutually proportionate.[1]

Those words, uttered over two thousand years ago by Aristotle, express the essence of an idea constantly elaborated whenever and wherever it has since manifested itself. The notion that painting and music are in some way interrelated is a recurrent theme in the history of painting, but one which has eluded definition until very recent times.

Numerous writings testify to the fascination which the notion afforded: such a relationship did exist, the writers were sure, but there appeared to be little evidence to encourage further investigation. Thus, curiously, variations on the same theme occurred again and again as original consideration, reconstituted and presented according to the spirit and tenor of the epoch, only to be deferred because they failed to fulfil their initial promise.

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[1]Aristotle, "De Sensu", quoted Image 1965.

Some would have it that, of all the arts, music and architecture make a more convincing equation. Goethe described architecture as "dumb music", and he quoted with approval Görres' famous aperçu of architecture as "frozen music".[1] "Music", said the famous German philosopher, Hegel, "is Architecture translated from space into time--for in music, besides the deepest feeling, there is also a vigorous mathematical intelligence."[2] In addition to spatial and temporal considerations, music often resembles architecture in the formidable distance that separates the creator and his creation.

Medieval man constructed his architecture according to musical harmonic proportion. The beauties of musical consonance were considered to be an echo of metaphysical truth, and visual beauty had to be the mirror of that truth.

> The proportions, 1:1; 1:2; 2:3, were felt to be as pleasing to the eye as the corresponding consonances were to the ear. That is why St. Augustine and his pupils considered architecture, the art of geometrical proportion, the sister of music.[3]

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[1]L. A. Willoughby, The Romantic Movement in Germany (Oxford University Press, 1930), p. 179.

[2]Georg Wilhelm Friedrich Hegel, (1770-1831), quoted in King Palmer's Compose Music (London: The English Universities Press, 1947), p. 2.

[3]Anil de Silva, Otto von Simson, Roger Hinks, Man Through His Art: Music (London: E. P. Publishing Co. Ltd., 1964), p. 28.

> The Middle Ages conceived the cosmos as a kind of musical universe, a symphony composed of an infinite variety of individual parts related to one another by the harmony of musical proportion.[1]

If architecture was the visual equivalent of music, painting, sculpture and allied crafts contributed, as component parts to the unity of the composition.

In the fourteenth century, perspective and preharmony evolved together out of the basically unperspective and unharmonic world of the later Middle Ages. At the beginning of the Renaissance there was a radical shift to perspective and harmony proper. As long as painting had persisted in a two-dimensional attitude, music had been 'linear,' proceeding either in one single unaccompanied line, as in the Gregorian chant, or else combining these single lines with other single lines simultaneously in a type of counterpoint essentially different from the harmonically based counterpoint of the polyphony of the Later Ages. The painter's increasing confidence in perspective is synchronized with the composer's confidence in harmony.

In Renaissance times musical consonance now formed the basis of ideal proportion in painting. Alberti taught that the musical intervals most agreeable to the (Renaissance) ear, the octave, fifth and fourth, correspond to the division of a string in two, in three, or in four--1:2; 2:3; 3:4.

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[1]Anil de Silva, Otto von Simson, Roger Hinks, p. 29.

> From whence I conclude that the same Numbers, by means of which the Agreement of Sounds affects our Ears with Delight, are the very same which please our Eyes and our Mind.[1]

These proportions, universally employed in Renaissance painting, were known as the diapason,[2] diapente, and diatessaron.[3] Raphael, (1483-1520), and Leonardo da Vinci, (1452-1519), were aware of the musical relationships and made use of the ratios of consonance. Moreover, Leonardo, who had a passion for music, one of his many accomplishments, wrote with great subtlety on its relations with painting.

At the time of the transition from the fifteenth to the sixteenth century, Venice became the nerve centre of the great new movements in the field of music. The infusion of the musical spirit is perceptible in the later paintings of Giovanni Bellini, (c. 1430-1516), and continued with increasing significance in the works of his successors. To the list of parallels and influences--musical consonances, perspective and harmony--may now be added the exploration of space in music, harmony standing to music as perspective

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[1] Alberti, De re Aedifatoria, Book IX, Chapter V.

[2] cf. music. Diapason originally meant octave; later in France, a tuning fork, and then the pitch given by the tuning fork; the common name for the chief flue stop on English organs.

[3] i.e. the octave, fifth and fourth of music.

and the representation of space stood to painting.[1]

The fact that many Venetian painters were also competent performers on a variety of musical instruments points to a lively spirit of co-operation between the two arts.

> ...it is hardly a coincidence that the agent for the change in the visual arts should have been one who, in addition to his own profession as a painter, should have been renowned among his contemporaries as a supremely accomplished musician: Giorgione.[2]

> Giorgione sang and played the lute so divinely that he was often engaged to do so at the concerts and other gatherings of the Venetian nobility.[3]

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[1]The notion of space in music is exemplified in the soaring motets of the Venetians Andrea Gabrieli, (c. 1510-86), and his nephew and pupil Giovanni, (1557-1612). It is also evident, of course, in the polyphony of the Roman School chief among whose composers were Palestrina, (c. 1524-94), and Vittoria, (c. 1535-1611). An extreme example of the exploitaion of musical and architectural space is the motet, Spem in aliem by the English Renaissance composer Thomas Tallis, (c.1505-85), which is scored for eight five-part choirs, 40 parts in all, in rich polyphony.

[2]de Silva, von Simson, Hinks, p. 37.

[3]Jean-Louis Vaudoyer, Venetian Painting (London: Thames and Hudson, 1958), p. 21.

Two of his finest paintings, the Concert Champêtre, and the Concert, have music as their subject. And the 'Giorgionesque' painters in their turn introduced this subject into their paintings, not in a spirit of imitation, but in one of communion.[1] The Venetian language of colour lent to these works the illusion of sensations and impressions as fugitive as the language of sound. "Colours and sounds become indistinguishable from each other in these enchanted paintings."[2] And remarking the musical significance of the Venetian's colour, Joubert says: "There are emotions so delicate that it would be impossible to express them save in sound or colour."[3]

Jacopo Tintoretto, 1518-94, in addition to his activities as a painter, was a student of music who had improved certain instruments and even invented new ones. His penchant for music is confirmed by Vasari:

> In the same city of Venice and about the same time there lived, as he still does, a painter called Jacopo Tintoretto, who has delighted in all the arts, and particularly in playing various musical instruments.[4]

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[1] e.g. Titian's Venus with the Organist.

[2] Vaudoyer, p. 22.

[3] ibid.

[4] Giorgio Vasari, Lives of the Most Eminent Painters, Sculptors and Architects, vol.VIII, new trans. Gaston Du C. Devere (London: Philip Lee Warner, 1912-15), p. 101.

Tintoretto's contemporary Paolo Veronese, (1528-88), -

> -continued to depict palaces resembling those of the patricians of Venice and to fill them with men and women of high society, invited to listen to some famous quartet, in which he himself might be shown playing the cello, Tintoretto the viol, Bassano the flute, and Titian the double-bass.[1]

The interfusion of painting and music in sixteenth century Venice was unique among the countries of Europe which were discovering similar relationships along the arts along less unified lines.[2]

The quest for ideal proportion which had led Renaissance painters to mathematics and philosophy, geometry and logic was continued through the Classical period of French painting. Again painting was related to music.

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[1] Vaudoyer, p. 29.

[2] e.g. as in isolated attempts to equate colours and musical tones. Guiseppe Arcimboldi, (1527-93), a Milanese painter, experimented with a system of colour harmony based upon a colour scale analogous to the musical scale. (Discussed in "Colour Music", Image 1965).

Félibien, taking Poussin as his authority, stated (in the Conférences de l'Academie royale de peinture et de sculpture pendant l'année 1667):

> The soul that loves proportion and equality takes more pleasure in the sounds of instruments and in the accents of voices in which the numbers are whole, and in which there is less dissonance. So also the painting of which the whole beauty consists in symmetry and fine proportion...[1]

Nicolas Poussin, (1593/4-1655), conceived of each class of subject as if it had to be treated in way comparable to architectural orders or musical modes. Like the Renaissance painters in Italy he employed musical consonances as a means of unifying and rationalizing the arts.

> Le Brun...said that M. Poussin, conforming to the harmonic proportion which musicians observe in their compositions, desired that in his pictures all things should contain reciprocal harmonies and should conspire to the same end.[2]

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[1]Charles Bouleau, The Painter's Secret Geometry: A Study of Composition in Art (London: Thames and Hudson, 1963), p. 110.

[2]ibid., p. 111.

During the Baroque and Rococo periods there was a shift in emphasis from harmony of structure to harmony of colours. Classical painters had looked on colour dissonances with much disfavour. Baroque painters found colour dissonances useful (by analogy with music) to the expression of "busier" ideas, seeking movement where Classical painters had sought rest. Such changes in taste and fashion are closely paralleled in the arts.

> The perfect harmonies in music must be rendered in a picture by a perfect sympathy of colours; and the great painter must, just as much as the musician, make a proper use of dissonances, which are strong oppositions of the chiaroscura and of colours, and, in order to wake up his picture from time to time, fill it with an agreeable variety that ravishes, astonishes, and takes the spectator unawares.[1]

In eighteenth century France there was a growing attraction for a musical conception of colour, the analogy between colours and tones being drawn with ever-increasing refinement.

> Has not the painter, just like the musician, his treble, alto, tenor and bass, sometimes produced by the gradations of his lights and of his browns, and at other times by the shadings of the colours?[2]

> We find in music as well as in painting all the colours which are appropriate to the description of varied emotions and characters.[3]

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[1]Antoine Coypel, (1661-1722), (see Bouleau, p. 112)

[2]ibid.

[3]André Ernest Grétry, Composers on Music,

In Germany, too, such metaphor confusion was becoming common. Johann Reichardt, Kappelmeister to the court of Berlin about 1800, spoke of the crescendo and decrescendo of the Mannheim orchestra as giving "a darker or a lighter shade to the whole colouring".[1] In 1773 Dr. Charles Burney characterized the Mannheim achievement "as new colours--the colours in music having their shades as colours like red or blue have them in painting."[2]

Johann Wolfgang von Goethe, (1749-1832), the great German poet and leader of the Sturm und Drang movement at Weimar looked at the relationship between tones and colours objectively. "That a certain relationship exists between the two has always been felt; this is proved by the frequent comparisons we meet with, sometimes as passing allusion, sometimes as circumstantial parallels."[3]

> If the word tone, or rather tune, is to be still borrowed from music, and applied to colouring, it might be used in a better sense than heretofore.
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> For it would not be unreasonable to compare a painting of powerful effect with a piece of music in a sharp key; a painting of soft effect with a piece of music in a flat key, while other equivalents might be found fof the modifications of these two leading modes.[4]

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ed. Sam Morgenstern (London: Faber & Faber, 1958).

[1] Curt Sachs, The Commonwealth of Art (New York: W. W. Norton & Co. Inc., 1946), p. 17.

[2] ibid.

[4] J. W. von Goethe, Theory of Colours (Frank Cass & Co. Ltd., 1967), p. 342, pars. 889 and 890.

[3] ibid. p. 298, par 747.

Summarizing the relationship, he said:

> Colour and sound do not admit of being directly compared together in any way, but both are referable to a higher formula, both are derivable, although each for itself, from this higher law....
>
> Both are general, elementary effects acting according to the general law of separation and tendency to union, of undulation and oscillation, yet acting thus in wholly different provinces, in different modes, on different elementary mediums for different senses.[1]

Owing to the close ties in Germany between painting, music, poetry and philosophy, Romantic art became there the expression of the unconscious world, and artists regarded nature as the means of attaining the absolute, of merging the finite in the infinite. Philosophy made such union of opposites possible. Hegel taught that truth or reality has three aspects revealing itself in dialectical development: thesis, antithesis, and synthesis.[2] Arthur Schopenhauer, (1788-1860), who held that the will is superior to knowledge, established a hierarchy of the arts with music as the most perfect.

The synthesis of painting and music was a favourite idea of the Romantics. It was postulated by the Frühromantik poets Ludwig Tieck, (1773-1835), and Novalis, (1772-1801), and the painters Philipp Otto Runge, (1777-1810), and Caspar David Friedrich, (1774-1840).

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[1] Goethe, pp. 298-9, par. 748.

[2] Developed in art by Richard Wagner.

Colour was for Runge the "supreme" art. He discussed the scientific study of tones and colours in correspondence with Goethe. During the years 1806-10 he laid the basis for a more or less scientific approach to colour theory, including a good deal on the symbolic meaning of colour. "The analogy between vision and hearing gives great promise of a future union between painting and music or between the tones and colours," [1] he wrote.

In France and England (as in Germany) a spiritual bond brought artists as writers together. Painters and poets tried to express the "music" they felt within themselves, and in return composers wrote "landscape" symphonies and tried to draw their music closer to painting and poetry. Artists continued to search for an underlying spirit in which they felt all the arts were unified, so much so that by the middle of the nineteenth century Richard Wagner, (1813-83), had a tremendous amount of material from which to fashion his notion of Gesamkunstwerk --"a work of art embracing all the arts."

German Romanticism is the heritage which succeeded to the Expressionist painters and composers, although it is the heritage they most sought to reject. And their towering forefather, Wagner, had tremendous impact not only on

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[1]Paul Klee, The Thinking Eye, ed. Jürg Spiller, (London: Lund Humphries, 1961), p. 521.

the cultural life of Germany but also on that of France--indeed, on the whole of Europe--and he was widely admired.

Eugène Delacroix, (1798-1863), the major painter of the Romantic movement in France, equated painting with music.[1] He who wavered between the choice of painting or music as a career, was in a very strong position to note similarities and differences between the two. An accomplished violinist, he is said to have interpreted Mozart, (the composer he admired above any other), brilliantly. He was a close friend of Chopin and they corresponded with each other over many years. "Painting," he observed, resembles music in so many ways."[2]

> The craft of the painter is the most difficult of all and it takes longest to learn. Like composing, painting requires erudition, but it also requires execution, like playing the violin.[3]
>
> ....if it were only a question of arranging lines and colours to create a visual effect an arabesque would do just as well, but when you add to a composition already interesting on account of its subject, an arrangement of lines that heightens the

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[1] "The art of the colourist is evidently in some respects related to mathematics and to music".--Baudelaire in an essay on Delacroix, (See Lockspeiser, vol. 2, p. 17).

[2] The Journal of Eugène Delacroix, ed. Hubert Wellington, trans. from the French by Lucy Norton, (London: Phaidon, 1951), p. 267.

[3] ibid., p. 81

> the impression, a chiaroscura that grips the imagination, and a colour scheme suited to the characters, you have solved a more difficult problem and, moreover, you are moving on a higher plane. Like a musician, you are adapting to a simple melody the wealth of harmony and its mutations.[1]

Jean Auguste Dominique Ingres, (1780-1867), the main prop of a rigid classicism diametrically opposed to the Romanticism of Delacroix, had fist earned his living as a violinist. He, too, professed a deep admiration for Mozart's music, and also that of Gluck, Beethoven and "that charming Haydn."[2] Like Delacroix he adopted a musical attitude in his approach to painting.

> If I could make musicians of you all, it would be to your advantage as painters. All is harmony in nature, a little too much, or a little less, disturbs the scale and strikes a discordant note. One has to learn to sing true with the pencil or brush, just as with the voice; correct form is like correct sound.[3]

Delacroix and Ingres drew analogies with music appropriate to the style of their paintings, hence the basic disagreement in the application of the analogies.

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[1]Delacroix, p. 187.

[2]Ingres, Letters of the Great Artists (London: Thames and Hudson, 1963), p. 48.

[3]ibid., "Jean Auguste Dominique Ingres' Advice on Art given to his pupils", p. 54.

Ingres emphasized "correctness" of form. His is an art of rest--emotion is disciplined, "music" is silenced, there is no movement. Delacroix tended more towards a "melodic" conception of "musical" colour. The two extremes co-exist, as they have continued to do in modern art. Today, the dialogue between form and colour remains with painting (and music), form alternating with colour in importance to succeeding generations of artists.

Painting and music evolved interdependently, yet they remained two distinct and highly specialized streams. But they were destined to converge in the twentieth century For centuries the notion that painting and music were interrelated had persisted. Now a scientifically informed sensibility would show how and why that was so. Science would show in how many respects painting and music were similar. And such revelations were to provide the basis for modern art.

Chapter 2.

THE INTERFUSION OF MODERN PAINTING AND MUSIC.

The interfusion of painting and music, essentially a phenomenon of the era of modernism, has its roots in the shifting attitudes of the nineteenth century. The countries of Europe were all subject to the same powerful expansionist and industrial drives and to the same threats of war and destruction. In the climate of political, scientific, technological, industrial and philosophical ferment, it followed that the arts would reflect the tensions of rapid progress. The social, psychological, and cultural shocks were to have far-reaching consequences on the future courses of painting and music.

Before the First World War the most important events in the arts were to take the form of a dialogue between France and Germany. (Italy, the U.S.A., and other national schools were to join the discussion much later.) In Germany the disintegration of the harmonic tradition was already evident in Wagner's shifting tonality, and his influence on a younger generation of French composers doomed to eventual extinction Romantic declamatory mannerisms.

The world was opening up rapidly, and neither painting nor music had yet the means of expressing the shifting patterns of thought or the changing environments. What was called for in each language was a complete re-structuring. Science sharpened both the faculties of looking and listening, of seeing and hearing, and encouraged the analysis of things in terms of their essentials.

Researches into colour and the invention of photography, (c. 1840) contributed to a much greater understanding about the appearance of objects. Colour phenomena were investigated and rationalized in elaborate detail, and the paintings produced from the 1870's on show, in permanent chronological record, the benefits of familiarity with the behaviour of colour. Such researches increased the painter's confidence in the autonomous power of colour.

Photography released the painter from his obligation to record the faces and events of his day and encouraged him to seek a "personal" view of the modes, manners, and general aspect of his own time and in this way create a "living art" with the realistic aim of being "true to nature". In France Realism, as expounded by Gustave Courbet, (1819-77), became a force with considerable impact. Science encouraged a return to essentials and that journey first took the painter back to an objective study of nature.

Modern art is an affirmation of the scientific attitude. The results of research with the X-ray and the microscope, the breaking up of the atom, new concepts of time and space, psychological research by men such as Freud and Jung--all these phenomena challenged the artist. Painters and composers subjected their own materials and techniques to the same objective scrutiny, discovering therein an infinte variety of new orders and possible combinations capable of expressing the extraordinary complexity of modern life.

Every frontier was approached. The questing mind ranged far outside the boundaries of Europe interesting itself in the cultural expressions of very different human societies for very different reasons--partly because of the curiosity about the unknown which sought satisfaction in enlightenment, partly because the technological expansion of Europe demanded the creation of new markets as outlets for her products.

Paradoxically, Napoleon the Third's defeat at the Battle of Sedan in 1870 catapulted France into a new era bright with promise. As far as France was concerned, the ideal of the Romantic hero died in that last battle of the Franco-Prussian War. A defeated and war-weary country, she set about resolving the difficulties which must accrue in a country at war: the oppressor must take steps to avoid becoming the oppressed.

In spite of Germany's continuing superiority in respect of material progress, France made a spectacular economic recovery. Her series of international expositions from 1878 on was intended to show the world that, though no longer a military power, she was now an industrial force of great strength.

At the Paris Exposition of 1878 products of almost every country in Europe (except Germany) and of several in Asia, Africa, and America were exhibited. For industry-conscious Europe the greater interest lay with the convenience of a single location for the comparison of technological products. But the additional attractions of national culture--displays of art-objects and performances of music and dance from Polynesia, Micronesia, Africa, and the Orient--were to acquaint Europeans with exotic cultures and unsettle painters and composers in their visual and aural traditions.

Of course, popular taste was already being satisfied by curiosities from Japan. With the establishment of trade with Japan, (the result of a treaty signed between the United States, Great Britain and Japan in 1854), curios and artifacts flooded the European market. Among these curios the woodcut was immediately appreciated for its artistic merits. Many French artists became collectors of works by Hokusai and Utamaro, and it was not long before the influence of such masters became apparent in the work of French painters.

The Japanese print showed that colour had a value part from that of imitating natural appearances and it lso suggested new resources in composition and arrange- ent.[1] Painters such as Gauguin and Toulouse-Lautrec must ave absorbed the lessons of the Japanese colour system ntuitively, as the formalities governing such colour usage n Japan were probably quite unknown to them. What attered was that which they saw and felt--the Japanese olour system worked!

> Instead of the Western method of deriving the spectral colours from the three 'primary' colours (red, yellow, blue), classical Japanese painting proposes five primary, or 'parent', colours; the secondary colours in Japanese art thus differ from our secondary colours, due to the differing initial subdivision. Iro no kubari, a cardinal principle of Japanese colour harmony, states that a primary or parent colour should never, in a painting, be placed so that it is contiguous to any of the secondary colours of which it is a component; both colours would lose by such a juxtaposition. The parent colour, white, should not, for example, be placed next to sky blue, since white is one of the components of sky blue.[1]

In answer to the "spectrum" of five colours, Japanese music proposes a scale of five tones. Both scale and spectrum are part of a formal universe reminiscent of the European Middle Ages. In Chinese music similar cor-

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[1a]. Patricia Sloane, Colour: Basic Principles and New Directions (London: Studio Vista, n.d.), p. 10.

[b]. The five primary or parent colours are: yellow, blue, black, white, and red.

relations are made between the five basic scale tones and considerations of politics, seasons, elements, colours, directions and planets.[1] Chinese painting employs the element of time--a concept first consciously introduced into modern European painting by the Cubists--and the picture is deliberately composed for one part to be seen at a time, in sequence.

In Hindu music there exists a correlation between the musical mode, (or raga), and visual portrayal, colour, architecture, times of day and night.[2]

> The possible correspondence between the arts and a certain mysterious relationship between painting and music is not specifically Indian, but no-one has gone as far as the Indian in its comprehension. The Sanskrit word Sangita signifying music embraces all three notions of vocal and instrumental music and the dance. It is therefore not surprising that it was in India that this garland of miniatures, the Ragamala, was born, in which music, poetry and painting are brought together.[3]

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[1]Laurence E. R. Picken, "Chinese Music", Groves Dictionary of Music and Musicians, 5th. ed., ed. Eric Blom (London: Macmillan & Co. Ltd., 1954).

[2]W. G. Raffe, "Ragas and Raginis: A Key to Hindu Aesthetics", Journal of Aesthetics and Art Criticism, no. 11, 1952.

[3]de Silva, von Simson, Hinks, pp. 52-3.

The miniature is meant to be a "visualization of the emotional and aesthetic experience which the music gives."[1]

There were many valuable lessons to be learned from the painting and music of these far-away lands. The first "students" were the Impressionist painters, and the composers, Debussy and Ravel, who absorbed the "external" effects. More recently, composers such as Olivier Messiaen and John Cage have embraced the philosophies as well, thus fusing the "external" effects with the "internal".

But equally as distant as the Orient was the folk art of Europe--distant in time. Composers and painters recognized the dignity of the folk art of their distant past. The culture of exotic societies had thrown a different perspective on indigenous European culture, a result of which was the late flowering of nationalist music in Hungary, Denmark, Norway, Czechoslovakia, Bohemia, Russia, Finland, Moravia, England, Spain, Poland, and Roumania, to be joined later by national schools in the United States and Latin America. In each of these countries composers rediscovered a musical future--in the music of their past.[2]

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[1]de Silva, von Simson, Hinks, pp. 52-3

[2]Bartok said:"A genuine peasant melody of our land is a musical example of a musical masterpiece--in miniature--as a Bach fugue or a Mozart sonata is a masterpiece in the larger forms."--Joseph Machlis, Introduction to Contemporary Music (New York: W. W. Norton & Co. Inc., 1961), p. 256.

The decorative aspects of folk art found their way into painting, too, and the works of Matisse and Rouault have gained in resonance and expressive power as a result. (Although folk art has been more usefully employed, and with greater effect in textile design, interior decorating, furnishings, and the other design arts.)

In the modern era, painters and composers overlapped in identical patterns of development, and experienced influences from similar sources as a result of the same events--political, scientific and social. In France they rejected their immediate past in order to "satisfy" their national appirations", absorbing any substitute that would usefully serve that purpose. The first movement of the modern age looked to science, to music, to poetry, in order to rid French art of Germanic influence. That movement was Impressionism.

Meanwhile German painting and music continued in grossly inflated versions of Romanticism veering tonally (visually and aurally) on the brink of collapse. This bloated Romanticism was to surge on into the early years of the twentieth century in the works of Richard Strauss, Anton Bruckner, Mahler, the Jugendstil, and in the early works of two who were soon to jump from this stricken ship on to new shores--Schönberg and Kandinsky.

Chapter 3.

IMPRESSIONISM IN PAINTING AND MUSIC.

Briefly, the term Impressionism originated with, and broadly applies to, the painters who contributed to a series of exhibitions in Paris between 1874 and 1876, all but the first being so described.[1] In 1874 a French critic used the word in ridicule of a painting by Claude Monet, Impression-Sunrise, and thereafter the painters adopted the title in a spirit of defiance.

Although Impressionism in music[2] occurred later than in painting, they were united in their desire to discard everything in the Romantic tradition that had hardened into academic formula.

In seeking to reproduce, by means of a careful analysis of colour, the effect of light upon objects in

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[1]Principle contributors were: Claude Monet, (1840-1926); Auguste Renoir, (1841-1919); Alfred Sisley, (1840-1916); Camille Pissarro, (1830-1903); Edgar Degas, (1834-1917); and Berthe Morisot, (1841-95). Monet is regarded as the leading figure.

[2]In 1882, Renoir spoke to Wagner of the "Impressionists in music", probably alluding to Wagner's own Forest Murmurs (see Lockspeiser, vol 2, p. 18.)

nature, the Impressionist painters made use of the latest results in colour chemistry. In order to arrive at an analytical, more scientific approach to painting they substituted the Romantic's palette for a simplified palette of seven or eight of the most brilliant colours nearest to the colours of the spectrum--yellow, orange, vermillion, lake, red, violet, blue and green, with the addition of white. Colours were applied relatively freely and juxtaposed so that they fused in the eye of the viewer at a certain remove from the picture.

Researches into the response of the retina to colour in optical science inspired in the Impressionists a radical shift in attitude to accepted values in painting, resulting in the colour freshness with which they subsequently invested their art. Working with an unprecedented spontaneity and freedom, they animated their picture surfaces with direct statements of high key colour (even in the representation of chadows.) The resulting effect is a kind of luminous flickering haze enveloping the subjects of their paintings. A close link between Impressionism in painting and music exists in their delight in creating luminous atmospheres.

Although the work of physicists such as the German, Hermann Helmholtz, (1821-94), who conducted exhaustive enquiries into the properties of sound and colour, showed that there was no scientific basis for drawing the sorts of inference that painters and composers were attempting to draw. Painters, composers and poets continued to behave as if there were discoverable "inner" relations.

The notion was rendered more desirable by the increasing importance of music in the lives of Parisians, since Paris was fast becoming the music capital of the world. Musical soirées were the common social experience of all artists. In such a musical environment painters were nurtured. Degas' father held musical evenings to which musicians and artists came. On this intimate scale dialogues between the arts were established, as dialogues between the artists involved in those arts, and it was natural, under such circumstances, that they should seek the fundamental principles underlying and unifying their arts. But the Impressionist painters remained on the surface, so to speak, contenting themselves with the making of simple analogies only, as colour "orchestration", concern with scales of colour, colour "sonority", and so on.

Impressionist painters were particularly intrigued by the possibilities of colour "sonority", and the sympathetic or antagonistic vibrations of contiguous colours. Renoir said:

> I arrange my subject as I want it, then I go ahead and paint it like a child. I want a red to be sonorous--to sound like a bell; if it doesn't turn out that way I put on more reds or other colours till I get it.[1]

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[1]Charles Edward Gauss, The Aesthetic Theories of the French Artists (Baltimore: The John Hopkins Press, 1949), p. 43.

Impressionism in painting succeeds as "sonorous patches" as Camille Mauclair wrote, comparing Debussy's music to Monet's paintings:

> The landscapes of Claude Monet are in fact symphonies of luminous waves, and the music of Monsieur Debussy, based not on a succession of themes but on the relative value of sounds in themselves, bears a remarkable resemblance to these pictures. It is Impressionism consisting as sonorous patches.[1]

Covering much the same ground in music as the Impressionist and post-Impressionists in painting, Claude Achille Debussy, (1862-1918), was one of the first French composers to point new directions in the art of sound, effecting radical changes in the harmonic and melodic thinking of the eighteenth and nineteenth centuries. For Debussy, (as for the Impressionist painters and Symbolist poets), art was sensuous rather than intellectual. As did the painters, he experimented with new ways and means of achieving colouristic effects. He sought to express the the shimmerimg effects of light and shade in painting by means of tone colour and chordal structure in music. Like Monet's paintings, his music is evasive, and is marked by vague, filmy effects, hued with delicate tints rather than solid colours, reflecting the oversensitive mind of the late nineteenth century.

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[1]Lockspeiser, vol. 2, p. 18.

Debussy was much affected by specific trends in the visual arts. Three painters whom he particularly admired were Turner, Hokusai, and Monet, (an admiration for the two former being shared with him by Monet.) He often compared his manner of working with theirs. Although he did not like being called an Impressionist, his work does resemble that of the French painters. Pointillist laws of contrast and analysis could also be said to be present in his music.[1]

In their choice of subjects, Impressionist painting and music resemble each other. Paintings which invite comparison with Debussy's music are: Le Bateau (1867) by Renoir; Argenteuil-sur-Seine (1868) by Monet; their two paintings of the riverside cafe La Grenouillère (1869); Renoir's La Seine à Argenteuil (1873-4); and Monet's Sail-boats at Argenteuil (1873-4). The water pieces of Debussy which convey the spirit of these pictures so specifically are En Bateau (1889); Sirènes (1889); Reflêts dans l'eau (1905); Voiles (1910); and La Cathédrale engloutie (1910). 2

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[1]Debussy felt that there was an essential difference between the art of the composer and that of the painter. Whereas the play of light, in a painting, can only be rendered in a static manner, as in a series of pictures such as Monet's haystacks, ponds, cathedrals, in music, a continuous fluid art, all these effects of light can be combined, although light and colour are normally metaphysical terms in music.

[2]Much of the information here presented has been gleaned from the two volumes on Debussy's life and work by Edward Lockspeiser.

James McNeill Whistler, (1834-1903), though not an Impressionist, did work along similar lines and was subject to the same sorts of influence as the Impressionist painters. A marked influence in his work was that of Japanese art: another was music--the former suggesting to him parallels of organisation with the latter. Whistler wrote much on the relationship between painting and music.

> Nature contains the elements, in colour and form, of all pictures, as the keyboard contains the notes of all music.
>
> But the artist is born to pick, and choose, and group with science, these elements, that the result may be beautiful--as the musician gathers his notes, and forms his chords, until he brings forth from chaos glorious harmony.
>
> To say to the painter, that Nature is to be taken as she is, is to say to the player, that he may sit on the piano.[1]

(We have since decided that the keyboard does not contain the notes of all music. And it is no longer incumbent upon the painter to bring forth glorious harmony. Such ideas seem curiously old-fashioned and quaint by comparison with the Impressionists achievements. But Whistler's utterances are prophetic and look to the artistic self-determination of modern abstract painting.)

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[1] James McNeill Whistler, The Gentle Art of Making Enemies (London: William Heinemann, 1890), pp. 142-3

> As music is the poetry of sound, so is painting the poetry of sight, and the subject-matter has nothing to do with the harmony of sound or of colour....The great musicians knew this. Beethoven and the rest wrote music--simply music; symphony in this key, concerto or sonata in that.[1]

It was Whistler's custom to call his paintings "Notes", "Harmonies", "Symphonies", "Arrangements", or "Nocturnes", in this or that colour--a practice which prefigured by more than half a century a fashion for musical titles to abstract paintings.

Such "affectations" found little favour with Whistler's contemporaries who, outraged and scandalized, detailed their reactions to his offensive practices in correspondences to that nineteenth century forum of opinion, the newspaper. In a celebrated court action Whistler successfully sued John Ruskin for libel to the tune of one farthing. Ruskin had declared him a fraud for "flinging a pot of paint in the public's face."[2]

Whistler was handsomely equipped with a distinctively knife-edged turn of phrase with which he defended himself against newspaper criticism. One critic carped:

> In the "Symphony in White No. 111" by Mr. Whistler there are many dainty varieties of tint, but it is

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[1]Whistler., p. 127

[2]A Dictionary of Art and Artists, eds. Peter and Linda Murray (Penguin, 1959), p. 346

> not precisely a symphony in white. One lady has a yellowish dress and brown hair and a bit of blue ribbon, the other has a red fan, and there are flowers and green leaves. There is a girl in white on a white sofa, but even this girl has reddish hair; and of course there is the flesh colour of the complexions.[1]

Whistler's reply:

> How pleasing that such profound prattle should inevitably find its place in print! "Not precisely a symphony in white...for there is a yellowish dress...brown hair etc...another with reddish hair ...and of course there is the flesh colour of the complexions."
>
> Bon Dieu! did this wise person expect white hair and chalked faces? And does he then, in his astounding consequence, believe that a symphony in F contains no other note, but shall be a continued repetition of F, F, F?.....Fool![2]

"The vast majority of the English folk cannot and will not consider a picture as a picture,"[3] he complained. To the vaster public of Europe such considerations were not to be tolerated. But disintegration of ingrained artistic habits had set in, (in painting as in music), and the public's expectations were continually frustrated.

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[1] Whistler, The Gentle Art of Making Enemies, p. 44

[2] ibid., p. 45

[3] ibid., p. 126

They saw a new type of subject matter--intimate and personal--replace the overblown allegories of "public" academic painting and treated according to unfamiliar systems of colour and pictorial organisation.

Impressionism pointed the way to an art of painting analogous to music--an art of colour composition addressing itself, as music does, directly to the senses.

Chapter 4.

POST-IMPRESSIONISM: THE MUSICAL PHASE.

Making of Impressionism "something solid and durable"[1] was the particular task which commended itself to Cézanne, Gauguin, van Gogh and Seurat,[2] all of them precursors to the main movements of twentieth century painting. The post-Impressionist masters differed considerably one from another in temperament, style and thought yet each in his own way, starting from Impressionism, and working in isolation, contributed to the new developments in painting.

Music played an important role in post-Impressionist innovation. Both van Gogh and Gauguin tried to establish colour scales and harmonies directly analogous to music. Van Gogh even took piano lessons and attempted to learn music in order to see the relationship more clearly.[3] "Why do I understand the musician better, why do I see the raison d'être of his abstractions better?" he asked.[4]

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[1]Paul Cézanne (ref. Peter and Linda Murray, p. 54.)

[2]Paul Cézanne, (1839-1906); Paul Gauguin, (1848-1903); Vincent van Gogh, (1853-1890); Georges Seurat, (1859-91).

[3]The Complete Letters of Vincent van Gogh, vol. 3 (New York Graphic Society, 1959), p. 44.

[4]ibid., p. 10.

Whereas the Impressionists had largely contented themselves with the rendition of "external" effects, van Gogh and Gauguin sought expression of the artist's psychic state, wondering at the creative impulses which enshrine themselves in aesthetic products such as painting, poetry and music. Music often seems to have more suitable means of giving expression to the fleeting moments of these feelings. Both van Gogh and Gauguin decided that colour more nearly corresponded to the "silent music" of their "inner states", and they developed colour as the "musical" element in painting.

Van Gogh said:

> Painting as it is now promises to become more subtle--more like music and less like sculpture --and above all it promises colour. If only it keeps this promise.[1]

Gauguin wrote:

> Think of the musical role which colour will be playing in modern painting from now on. Colour, which is vibration just like music, is capable of attaining what is most general and, in its origins, most vague in nature: its internal force.[2]

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[1]van Gogh, vol. 3, p. 21.

[2]Frank Popper, Origins and Development of Kinetic Art (London: Studio Vista, 1968), p. 29.

In the evolution of painting towards abstraction the analogies of van Gogh and Gauguin are particularly happy ones, since the (then) materials of music, tones, are not required to refer to extra-musical considerations, and are answerable to the impulses which give them autonomous shape and to the response which the whole elicits through aural involvement. Thus the "raison d'être" of the musician's abstractions which van Gogh had so admired, is revealed in sound-structures through which the composer projects his thoughts and/or feelings.

Might not colour be employed similarly to articulate the painter's feelings?[1] For Gauguin and van Gogh this demanded truth to the "inner man" rather than "truth to nature."

Colour as a physical phenomenon was thoroughly investigated. Psychology and the physiology of vision, optic and the analysis of light and colour were detailed in published works all appearing about the same time. Helmholtz, Edmund Rood, and Blanc continued the discoveries of Chevreul, whose work, De la loi du contraste simultané des couleurs, (published in 1839), was reprinted by the state in 1889 for the centenary of the birth of the scientist.

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[1] de Silva, von Simson, Hinks: "Yet a kind of unheard, unhurrying music, echoes unendingly in the background of their minds; and they seek to fix it in the still but somehow vibrant shapes of certain works of visual art." (Roger Hinks, "Introduction.")

Like music, colour was subject to "fixed"--though different --physical laws, (regardless of "associative" relationships which it was becoming fashionable to draw.) Painting and music employed the same fundamental principles of organisation. Noting this, Charles Blanc wrote, (in his Grammaire des arts du dessin): "Not only can colour, which is under fixed laws, be taught like music, but it is easier to learn than drawing whose absolute principles cannot be taught."[1]

Encouraged by the objectivity of the day, the neo-Impressionists produced works which wedded strict, formal composition to carefully controlled colour contrasts.[2] In attempting to define the essentials of painting Seurat objectified the qualities of feeling inherent in the painter's materials.

> Gaiety of value is the light dominant; of hue, the warm dominant; of line, lines above the horizontal.
>
> Calmness of value is the equality of dark and light; of hue, of warm and cool; and the horizontal for line

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[1]William Innes Homer, Seurat and the Science of Painting (M.I.T. Press, 1964), p. 29.

[2]neo-Impressionists, (also known as Ponitillists and Divisionists), were Georges Seurat, (1859-91), Paul Signac, (1863-1935), Henri-Edmond Cross, (1856-1910), and Maximilien Luce, (1858-1941).

> Sadness of value is the dark dominant; of hue, the cool dominant; and of line, downward directions.[1]

Starting from Chevreul's "law of simultaneous contrasts",[2] Seurat and Gauguin constructed harmonies of analogous colours and of contrasts, "triads" of colours, colour "scales", dissonances, and so on. Gauguin applied these experiments in his paintings and extended them through "colour orchestration."

But Gauguin insisted that there was more to colour phenomena than what was merely observable. Both he and van Gogh believed that painting and music were united in intersensory experience, and that the basis for unity was psychological and spiritual. "To judge painting and music special sensations in nature are necessary besides intelligence and artistic science," wrote Gauguin.[3] Like Redon, he preferred to keep the areas between painting and music indeterminate. Thus,..."You may dream freely when you listen to music as well as when you look at painting."[4]

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[1]Homer, p. 199.

[2]ibid., p. 20:"In the case where the eye sees at the same time two contiguous colours, they will appear as dissimilar as possible, both in their optical composition and the height of their tone. We have then, at the same time, simultaneous contrast of colour properly so called, and contrast of tone."

[3]John Rewald, Gauguin (London: William Heinemann Ltd., n.d.), pp. 161-3.

[4]ibid.

Gauguin's intuitive gropings into the psychological significance of colour and his attempts to formulate laws of colour analogous to laws of music accorded with the investigations of the behaviourial sciences and the physical sciences. With a foot in each camp, he was uniquely placed to explore the "felt" qualities of colour and the soul's responsiveness to colour chords, (and thus to realize the autonomous expressive power of colour.)

> Colour, being an enigmatic thing in the sensations it gives us, can logically only be used enigmatically, every time it is employed, not for drawing but for giving the musical sensations which proceed out of its own nature, its own interior, mysterious, enigmatic force.[1]

For centuries painters had thought their art inferior to that art to which they aspired: music. Now the position was quite reversed with Gauguin asserting, not the equality of the two arts, but the superiority of painting over music.

> There is an impression resulting from any certain arrangement of colours, lights, and shadows. It is what is called the music of the picture. Even before knowing what the picture represents--(as when) you enter a cathedral and find yourself at too great a distance to make out the picture--frequently you are seized by this magic accord. Here is the true superiority of painting over other forms of art, for this emotion addresses itself to the most intimate part of the soul.[2]

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[1] Gauss, p. 56.

[2] ibid.

> Painting is the most beautiful of all the arts.... Like music, it acts on the soul through the intermediary of the senses, the harmonious tones corresponding to the harmonies of sounds, but in painting, a unity is obtained which is not possible in music, where the accords follow one another, and the judgement experiences a continuous fatigue if it wants to reunite the end and the beginning. In the main, the ear is an inferior sense to the eye. The hearing can only grasp a single sound at a time, whereas the sight takes in everything and at the same time simplifies at its will.[1]

Musical equivalents are easily found in painting, yet painting has more than music alone can offer.

Gauguin and van Gogh were consciously "musical" painters in whose works may be discerned colour as "vibrating" tones, "chords", "orchestration", "melodic" colour, colour "counterpoint", linear "melody" and rhythm. There is a wealth of invention in their paintings. They were virtuoso painters. So, too, was Cézanne.

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[1]Gauguin, (Rewald, pp. 161-3.) cf. also Leonardo da Vinci, Paragone (Oxford, 1949), p. 68: "Leonardo tells the story of King Mathias who on his birthday, when a poet presented him a poem in his honour, and a painter a portrait of his beloved, preferred the painting, and said to the poet: "Do you not see that, in your science there is no proportion created at a (given) instant, but one part is born of the other successively and the next is not born unless the former dies? For this reason I judge your work of art to be distinctly inferior to the painter's, simply because no harmonic proportion is composed by yours.""

Paul Cézanne, (1839-1906), shared van Gogh and Gauguin's delight in music and enthusiasm for Wagner's music. But unlike his fellows he was not a consciously "musical" painter, although in his researches into form and construction the fundamental principles of organization remain the same. He determined the essentials of form. "Everything in Nature is based on the sphere, the cone and the cylinder,"[1] he declared. He endeavoured to represent solids by the various geometric planes they offered, to create a kind of architecture out of space, (as in his views of the Montagne Ste. Victoire.) Such practices point not only to Cubism, but to the parallel creative gesture of Stravinsky who combined "planes" of harmony presented simultaneously in polytonal and polyrhythmic works. In Paul Cézanne, the classical tradition is perpetuated. Numbered among his descendents are, the Cubists, the Purists, the neo-Classicists, and De Stijl, and, where they can be found, the musical equivalents (for the efforts of pioneers such as Cézanne make subsequent developments in all the arts possible.)

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[1]Peter and Linda Murray, p. 54.

Chapter 5.

THE SYMBOLIST DECADE: c. 1890-1900.

In direct contrast to the realist tendencies of Impressionism were the artistic movements of the 1890's, many of which aligned themselves with Symbolism. An earlier Symbolism which flourished between 1860 and 1870 was the first Symbolist movement of the century and included Gustave Moreau, (1826-98), Odilon Redon, (1840-1916), and Puvis de Chavannes, (1824-98), whose directions and achievements were extremely varied. Their Symbolism came just before Impressionism and then the two styles ran concurrently giving impetus to the later movement of the '90's, especially in literature.

The formal founder of Symbolist theory, and its premier poet, Stéphane Mallarmé, (1842-98), taught that beauty can best be sensed through words mysteriously suggestive of colour, sound, taste and touch. Charles Baudelaire had earlier written of an inner relationship among the senses in the poem, Correspondances,[1] contained in Les Fleurs du mal, a collection of his poems published in 1857:

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[1] The Penguin Book of French Verse, 3, ed. Anthony Hartley (Great Britain: 1957), p. 155.

La Nature est un temple ou de vivants piliers
Laissant parfois sortir de confuses paroles;
L'homme y passe a travers des forêts de symboles
Qui l'observent avec des regards familiers.

Comme de longs echos qui de loin se confondent
Dans une ténébreuse et profonde unité,
Vaste comme la nuit et comme la clarté,
Les parfums, les couleurs et les sons se répondent.

Il est des parfums frais comme des chairs d'enfants,
Doux comme les hautbois, verts comme les prairies,
--Et d'autres, corrompus, riches et triomphants,

Ayant l'expansion des choses infinies,
Comme l'ambre, le musc, le benjoin et l'encens,
Qui chantent les transports de l'esprit et des sens.

According to Symbolist theory reality is not limited to physical matter, but includes thought. The mind consciously meditating, steadily unearths the significance underlying outward appearances. Symbolism is a search for the mysterious meanings, the magic, the religious nuances, hidden in physical things.[1]

One of the principle Symbolist painters was Odilon Redon, (1840-1916), a close friend of Mallarmé. His work became known in Paris between 1879 and 1882 and was much admired by the literary Symbolists.

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[1]Michel Florisoone, "Impressionism and Symbolism", Larousse Encyclopedia of Modern Art, gen. ed. René Huyghé, (London: Paul Hamlyn, 1965), p. 185.

Redon formulated the basic law of Symbolism: "Nothing can be created in art by the will alone. All art is the result of submission to the unconscious."[1]

His younger contemporaries were influenced by contemporary scientific research, but Redon recognized that if science and philosophy put "one side of the truth", then this was not the whole truth. At the same time he held that Impressionism was exhausted, that the Impressionists were "real parasites of their subject matter, which they looked at from a single viewpoint, and that they were blind to anything beyond what they saw."[2]

What Redon saw beyond the material realities of the world was an underlying relationship between painting and music, and himself as an intermediary between them. "My drawings inspire, and are not to be defined," he said. "They do not determine anything. Like music, they take us into the ambiguous world of the indeterminate."[3] They are, he explains, "a kind of metaphor."[4] The "musical" element in his paintings is obvious. He described himself as a "peintre symphonique"[5], and boasted of having been "born on a musical wave."[6]

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[1]Michel Florisoone, p. 185.

[2]ibid.

[3]Klaus Berger, Odilon Redon (London: Weidenfeld & Nicolson, 1964), p. 32.

[4]ibid.

> If an artist's art is the song of his life, a melody that may be grave or melancholy, I first struck a gay note by using colour.[1]

Symptomatic of a spiritual restlessness sweeping across Europe, Symbolism attuned the artistic aspirations of other members of the Western cultural community to the mystical and spiritual contentions of the movements in France, the core of influence being centralized in Paris.

Symbolism was essentially a literary movement which influenced, and was in turn influenced by, painting and music. Wagner's symbolism exerted a profound influence. That his music dominated the period is confirmed in the writings of van Gogh, Gauguin, Debussy, Mallarmé, and many other artists of the period.

The Symbolist decade is marked by a growing spirit of co-operation among artists. Music assumed more and more importance in the lives of painters: composers took greater note of specific trends in the visual arts, and there was a lively interchange of ideas.

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[5]Haftmann, vol. 1, p. 136.

[6]Berger, p. 32.

[1]Berger, p. 124.

The purely personal and fantastic side of Symbolism which Redon developed strongly influenced the Nabis.[1] Gauguin's advice to them to paint in flat, pure colours prompted Maurice Denis to utter "one of the great battle-cries of modern art":[2] "Remember that a picture, before being a horse, a nude, or some kind of anecdote, is essentially a flat surface covered with colours assembled in a certain order."[3]

Temporarily disillusioned by the materialistic bias of the scientific revolution, many artists turned again, (in their insecurity), to religion. The confidence which science had first inspired now gave way to pessimism. The reappearance of religious art coincided with the revival of medieval ecclesiastical modes and Gregorian chant which were cultivated by the newly-founded Schola Cantorum in Paris. During this period Gauguin painted his religious works. Georges Rouault continued the fervour and intensity of neo-Catholicism into the twentieth century. Other artists looked to exotic or primitive religions, or to mysticism.

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[1]Paul Serusier, (1865-1927), Maurice Denis, (1870-1943), Pierre Bonnard, (1867-1947), Edouard Vuillard, (1868-1940), Paul Ranson, (1862-1909), Ker Xavier Roussel, (1867-1944). Serusier, Gauguin's disciple had a fine tenor voice and at one point considered making music his career. (ref. Crespelle, p. 37). The Nabis were encouraged by the composers Duparc, Chausson, Debussy and Vincent d'Indy who were their friends and shared their ideals.

[2 & 3]ref. Murray, p. 222.

During the Symbolist decade Debussy's musical idiom evolved towards a personal Impressionistic style. In many ways, the pattern of his development sums up the general artistic progress of the period. Just as Wagner's music had inspired Impressionist and post-Impressionist painters and Symbolist writers, so Wagner proved to be an early model for the young Debussy's compositions. Erik Satie, (1866-1925), a "cubist" composer and musician, wrote:

> When I first met Debussy, he was full of Moussorgsky and was very deliberately seeking a way that wasn't very easy for him to find...
>
> At that time I was writing Le Fils des étoiles to a libretto by Joseph Péladan, and I explained to Debussy that a Frenchman had to free himself from the Wagnerian adventure, which wasn't the answer to our national aspirations. I also pointed out that I was in no way anti-Wagnerian, but that we should have a music of our own--if possible without any sauerkraut.
>
> Why should we not use the means that Claude Monet, Cézanne, Toulouse-Lautrec and others had made known? Why could we not transpose these means into music? Nothing simpler.[1]

First, the influence of Wagner; now--like the painters--from the East, a fresh source of musical possibilities.

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[1]Erik Satie, "Debussy", Contemporary Composers on Contemporary Music (New York: Holt, Rinehart and Winston), p.32.

At the Exposition of 1889, held in Paris to celebrate the centenary of the French Revolution, were displays of oriental dancing, music, and artifacts. Visual, musical, and literary imaginations were given a tremendous boost by Javanese dancers and musicians and by the Chinese theatre from Cochin, both appearing in Europe for the first time. At the Exposition Debussy heard musicians from Java, Bali, and Indo-China. He was deeply impressed by the charm and possibilities of their music, especially the music of the Gamelan--a type of Javanese native orchestra--with its intricate interplay of percussive rhythms and enchanting instrumental colours. Here was a world of sonority that could be drawn upon to refresh the tired musical convention of Europe. Inspired by the salendro genus of five steps to the octave which he had heard on the Gamelan, Debussy devised a pentatonic scale and a whole-tone scale in order to free himself from the (apparent) limitations of the Western major-minor tonality. By the use of such exotic scales, he enlarged the European musical horizon to embrace the civilizations of the Orient. He also adopted Gregorian modes. Thus, an aspect of his work reaches back into the Middle Ages.

The first tonal ambiguities taking the form of a musical counterpart of Impressionism are revealed in the use of the dominant ninth chord or, without its fundamental, the diminished seventh.[1]

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[1]Employed, too, in the works of Satie, Duparc, Chausson, and Ravel.

> The particular property of the chord of the diminished seventh is that it is a pivot, modulating chord which may branch out into one of eight tonalities (four major and four minor). If, however, this chord is not used to modulate into another key but is linked to other seventh chords in the form of a succession, a continuous feeling of suspense is created.[1]

The juxtaposition of common chords, each belonging to a different tonality, creates a feeling of rootlessness. Tonality, music's law of gravity, was undergoing a quiet transformation.

For centuries music had centred around the intervals of the third and the sixth. Debussy's emphasis of the bare intervals of the fourth and fifth was a departure of prime importance for his contemporaries and followers. Impressionism released the chord in regard to the movement and goal of music. "Gliding" chords became an essential feature of the Impressionist style, a succession of "blobs" of sound, like the succession of individual notes in a melody. The harmony is a thickening out of the melody, (as in many an Impressionist painting, the luminous haze is a thickening out of the single line.) The resulting tonal ambiguities create the impression that "we never see anything clearly".[2]

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[1]Lockspeiser, vol. 2, p. 240.

[2]As Ruskin had remarked of Turner's paintings. (Lockspeiser, vol. 2, p. 23.)

In La Cathédrale engloutie (1910), a work for piano, the first chord is sustained by the pedal, creating a sonorous haze against which the succeeding harmonies unfold. This use of Pedal or Organ Point created an effect prized throughout the Classic and Romantic eras. The Impressionist adopted the device and used it with great imagination, deriving many striking effects from the clash of transient and sustained harmonies. Such effects challenged orthodox distinctions between consonance and dissonance, directing composers to different forms of tonal reference.

A concert devoted entirely to his works was given in the gallery of La Libre Esthétique in Brussels, (then the main centre of the Art Nouveau movement), on March 1 1894. The gallery, turned into a temporary concert hall, displayed not only the latest canvases of Pissarro, Renoir, Gauguin, and Signac, together with the posters of Toulouse-Lautrec, but also William Morris' illuminated books of the Kelmscott Press, Aubrey Beardsley's illustrations for Oscar Wilde's Salomé, and buckles and bracelets designed by the London Guild of Handicrafts. Debussy's music identified with the avant-garde.[2]

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[1] e.g. the pentatonic and whole-tone scales. La Cathédrale engloutie employs a medieval procedure known as organum in which the melody is harmonized in parallel fourths or fifths.

[2] This information condensed from Lockspeiser, vol.1 p. 119.

Debussy's La Mer (1905), considered the greatest example of an orchestral Impressionist work, is said to have been inspired by Turner's paintings, which he probably saw in 1902-3.[1] The first performance of La Mer[2] took place at the time of the Paris Autumn Salon where Fauve paintings were hung for the first time. Debussy was not especially attracted to the Fauves, but, possibly because of the powerful impact made by this exhibition, the programme note introducing La Mer drew parallels between his technique of orchestration and the approach to primary colours of the Fauves. The orchestral effects were procured by means of a "palette of sounds and by skilful brushstrokes designed to convey in gradation of rare and brilliant colours the play of light and shade and the chiaroscura of the ever-changing seascape."[3]

During the Symbolist decade this type of analogy became increasingly more frequent. Between 1895 and 1902 several studies appeared which attempted to draw conclusions on the relationship between colours and tones.

> In describing a picture art critics speak of roaring reds, shrill greens, singing blues, a noisy note of yellow and of chromatic harmonies and dissonances. A symphony, on the other hand, is described in terms belonging to painting: the melodic line is coloured with different hues... the three colours of the wind instruments in the upper registers are harmoniously combined. Above is the luminous blue of the flutes, the bright red

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[1] Just as Pissarro and Monet had been inspired by Turner's paintings when they visited the National Gallery, London, in 1871.

> of the oboes is in the centre and the warm, brownish tints of the clarinet are in the base.[1]

> La peinture est, si l'on veut, une musique des couleurs sans mouvement, une musique mort mais c'est déjàs une sort de musique.[2]

Debussy, too, wrote in like manner to describe his own works. Of his three Nocturnes for violin and orchestra he wrote:

> The orchestra of the first consists of strings; of the second, flutes, four horns, three trumpets and two harps; of the third, of both these groups. It is an experiment with the different combinations that can be obtained from one colour--like a study of grey in painting.[3]

His orchestral work, Nuages, he described as the musical equivalent of "grey tones lightly tinged with white."[4]

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[2]15 October, 1905.

[3]Lockspeiser, vol. 2, p. 16.

[1]Paul Souriau, "Le Symbolism des couleurs", La Revue de Paris, 15 April, 1895) (ref. Lockspeiser, vol. 2, p. 17)

[2]Lucien Favre, La Musique des Couleurs. (ref. ibid)

[3]Lockspeiser, vol. 1, p. 128.

[4]ibid. (Reminiscent of the influence of photography on Impressionist painting.)

In confusing their terms painters and composers moved closer together: painters discussed colours and forms in terms belonging to music, composers discussed tones and harmonies in terms belonging to painting. Both attempted to explore the "felt" qualities of their media through their "associative" aspects. Such practices reflected the emergence and developments of the new science, psychology, and researches into the phenomena of synaesthesia and chromesthesia. Some artists sought syntheses of their media (as Wagner had earlier advocated in Gesamkunstwerke.) Scriabin, Schönberg, and Kandinsky tried to combine music, coloured lights, and movement to address all the senses simultaneously.[1]

While radical changes were taking place in the arts the conservative core of artists retained their popularity over the newer experimental artists. Composers such as Saint-Säens and Faure in France, Mahler and Bruckner in Germany, and Leoncavallo and Verdi in Italy, whose works continued in a Romantically nationalist vein, represent the mainstream of resistance to radical change in European music. Although there was still the academic tradition of historical and portrait painting which, like its parallels in music, maintained its hold on established society and culture, the new non-academic art began to make its presence felt at the turn of the century. It had impact as truth to shifting contemporary values.

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[1]See Appendix.

The young painters were sensitive to this new atmosphere and nowhere more than in Paris which, as a result of the acceptance by the critics of Impressionism and its successors, became the art capital of the the world. In 1905 Romain Rolland was able to write about "the sudden change which is being brought about in music. French art, quietly, is in the act of taking the place of German art."[1] Musically, Paris became the most important centre in Europe

To Paris, young painters and composers gravitated, from Germany, Spain, Italy, England, Russia and America. To remain in their own countries was not to be free of the influence of developments in France. European art began to take on an international flavour. At the same time in other parts of Europe, other revolutionary groups were formed which were antipathetic to traditional art and sensitive to the exciting possibilities of the dawning twentieth century. But Paris was the centre for the earliest movements.

Painting could take either of the paths which led to Cubism or Expressionism: music could turn to either polytonality or atonality. The artistic atmosphere was bristling with possibilities: the fund of artistic ideas was swelling. The destinies of painting and music were

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[1] Machlis, p. 115.

inextricably intertwined.

Painters, poets, and composers met, too, in "la vie Bohemienne", which had arisen in consequence of the artist's alienation from society. The Bohemian life allowed great freedom of artistic behaviour and practice, but exacted its toll in other respects, in material sacrifice and poverty. Still, if, on the one hand, the artist had nothing to lose in identifying with "la vie", on the other, he had everything to gain. The period preceding the First World War was an age of eccentricity. Such behaviour disguised quivering sensibilities in innovators such as the poet and playwright, Alfred Jarry, the composer, Erik Satie, the painter, Henri Rousseau, and the poet, Guillaume Apollinaire.

Chapter 6.

FAUVISM AND MUSIC.

Fauvism, the first movement of the twentieth century to present itself as a united front, had specific affinities with music. Most of the Fauve painters were musicians and they drew upon their musical experience in order to advance new pictorial ideas.

A group of paintings hung together in the Autumn Salon of 1905 were dubbed collectively Les Fauves,[1] the wildness objected to beimg primarily a matter of colour and of its (so-called) "liberation". In the collective impact of their works, the individuals concerned discovered a certain sympathy of purpose: the expressive potential of colour as a means to composition.

Fauve painters liberated colour from its subordinate role as merely conveying a certain amount of information into the position of an independent force. Colour had previously been subservient to the aim of representing some natural effect. Gauguin and van Gogh had shown that

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[1]The original contributors were: Henri Matisse, (1869-1954), Albert Marquet, (1875-1947), André Derain, (1880-1954), Georges Rouault, (1871-1958), Henri Manguin, (1874-1949), Jean Puy, (1876-1960), and Othon Friesz, (1879-1949). Raoul Dufy, (1877-1953), Braque, (1881-1963), and Metzinger, (1883-1956), joined with them briefly.

it could do more than this; that like music, it could appeal directly to the senses, and that it could convey the artist's feelings as well as simply describe an aspect of the object seen. It did not necessarily destroy the experience of reality, but on the contrary more actively conveyed the artist's experience of reality.

That the Fauves drew analogies between their art and music, follows in consequence of their musical backgrounds.

> Their emotive temperaments were better attuned to music. Braque played both the accordeon and the guitar. Vlaminck earned his living as a music teacher until he was thirty, and both Matisse and Dufy played the violin. Derain played the organ and the harpsichord.[1]

Vlaminck was the eldest son of musical parents. His mother, a former Conservatoire prize-winner, gave piano lessons; his father taught the violin, was head of the choral society of Chatou, and choirmaster at the church of Saint-Merré. Vlaminck described himself as having been "born to music".[2]

> From my earliest years I ate, slept, and woke to the sounds of the violin and the piano...[3]

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[1]Jean-Paul Crespelle, The Fauves: History of the Movement (Oldbourne Press, London), p. 31.

[2]ibid., p. 104.

[3]ibid.

> I grew up to the sounds of my father's pupils doing their exercises, the Carnival of Venice, The Maiden's Prayer, and the sonatinas, scales, and duets which were a permanent background to our lives.[1]

Vlaminck's father taught him music, and he earned his living as a violin teacher because he "didn't think there was much money in painting."[2]

The Dufy household, like the Vlaminck's, was always full of music. M. Dufy played the organ and was a choir-master, and the other two sons, Léon and Gaston, were also musicians; one played the organ, the other, a flautist, became editor of the Courrier Musical, a musical publication. Raoul Dufy said that his early years were cradled by the sea and by music. He himself sang in a church choir and throughout his life he was an ardent concert-goer.

Braque loved music, and learned to play the flute, the violin and the accordeon from Gaston Dufy. Music has played a large part in his work: Bach or Mozart scores appear in many of his pictures. His first private exhibition took place in November 1908, sponsored by Apollinaire. In some of the canvases exhibited the artist introduced for the first time in modern painting the musical-instrument theme.

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[1] Crespelle, p. 104.

[2] ibid.

Fauve painters found a common identity in music. As a point of reference, music justified their innovations, and provided them with parallels, which they easily adapted, and with subject matter. Considered as equivalents of the music which formed a background to their lives, Fauve paintings are of immense interest. But it is in the practical application in Fauve teaching that the role of music becomes apparent. Matisse's theories are a "musical" refinement of the language of painting.

An exhibition of Moslem art in 1903 awoke in Matisse a taste for pure tone and a feeling for the arabesque in colour. He was also impressed by Gauguin's unbroken surfaces of vibrating colour, the pure colour of Signac and Seurat, and the expressive spontaneity of van Gogh. In Matisse, the influences from these various sources are fused. Colour is his art.

> The relationship of all the tones I have found must result in a living harmony of colours, analogous to the harmony of a musical composition.[1]

Matisse insisted on the importance of composition, the organization of the picture surface and the placement of colours. "To my mind composition is everything. So it is

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[1]Haftmann, vol. 1, p. 77.

essential to have a clear vision of the whole from the outset."[1]

Matisse had little use for the theories of complementaries: as did Debussy and Ravel, he sought harmony in dissonance. "One tone is just a colour; two tones are a chord, a life,"[2] the latter consideration contributing to the desired "living harmony of colours." Here was the essence of colour composition.

Matisse successfully translated his feeling for music into pictorial equivalents. His paintings exalt pure colour and are "concertos of colour,"[3] full of melodic variations and strongly rhythmical. He translated the musical arabesque on to canvas.[4] His series of paper collage compositions, Jazz, completed in 1947 (when illness and old age were beginning to overtake him), bear eloquent testimony to his musical gifts.

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[1]Escholier, Matisse from the Life (Faber & Faber, 1960), p. 81.

[2]ibid., p. 74, (Dubreuil writing on Matisse's teaching methods.

[3]The musical arabesque was originally inspired or borrowed from the visual arts. Both Matisse and Delacroix employed the arabesque as a rhythmic, linear surface decoration, inspired by Islamic or Moorish art. Both played the violin. Did painters such as Klee, Braque, Vlaminck, etc. increase in their feeling for the melodic potential of the drawn line as a result of their abilities with musical instruments of the single melodic line type? It invites speculation.

Having established in painting the independence of colour through expressive use, in free arabesques and pictorial surface decoration, Fauve ideas spread through the youthful movements of painting in other European countries, (particularly in Germany where considerable influence was exerted on the Expressionists), and looked to the pure abstraction of Orphism in France. The connecting link between Fauvism and Orphism is expressed in a phrase of Othon Friesz, the only unmusical Fauve. Friesz described Fauve paintings as "orchestrations of colour",[1] a phrase used with increasing frequency by the Orphists to describe their art.

Perhaps the most touching statement on the relationship between painting and music concerns Matisse's fear of blindness. In order to meet the affliction, should it ever be visited upon him, Matisse took up the violin in 1918 and began to study it seriously.

> It's a fact that I'm afraid I shall lose my sight, and not be able to paint any more. So I thought of something. A blind man must give up painting, but not music.[2]

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[1] Escholier.

[2] ibid.

Chapter 7.

CUBISM AND MUSIC.

"After the music of the silk-brush the music of the axe."--Cocteau.

Cubism began in 1907, the year of the great Cézanne memorial exhibition in Paris. As the discoveries of van Gogh, Gauguin and late Impressionism had stimulated the Fauves, so the teachings of Cézanne had a radical effect on Cubism. Whereas the principle concern of the Fauves was the investigation of the potential of colour, that of the Cubists was the analysis of form. Cubists carried much further the idea of the unity of the picture surface, and they abandoned the representation of things as they appear in order to give an account of the whole structure of objects and its position in space.

Other starting points for Cubism are to be found in the influence of negro sculpture (currently intriguing artists in Europe) in which forms are reduced to interrelated planes, and the reaction from the pattern-making of Fauvism. In their desire to express structure, the Cubists renounced Fauve colour and painted in a monochrome.

By 1909 they had greatly refined the process of analytical dissection of objects. They began by

separating the facets of objects, spreading them out, and blending them with the forms of other objects. These combinations gave rise to the idea of simultaneity, in which different aspects of an object were represented in juxtaposition--simultaneously--"so that the partial view of an object can be turned into a mental view with the help of factual data, such as dimensions, ground plans, and profiles."[1]

About the same time that juxtaposed simultaneous views of objects appeared in painting, the concept of time was introduced into the static space of the picture. In the realm of science, three-dimensional space, which can be visualized, gave way to the time-space continuum, with time playing the part of the fourth dimension which cannot be visualized but only expressed in mathematical formulae.[2] Minowski's mathematical formulation of the dimensions of space-time appeared in 1908. Einstein postulated that space and time were functions of each other. Independently, painters arrived at an understanding of the functions of space and time in visual art. Now painting was stepping into the temporal domain of music. Gleizes wrote:

> I have completed pictures by forcing myself to situate clearly, and in their natural places, the expressions of space and time--the latter being no more than a counterpoint or fugue on the former.[3]

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[1]Haftmann, vol. 1, p. 100.

[2]ibid.

[3]Popper, p. 75.

The distinctive feature of Cubism, then, is the interpenetration of space and time. Giedion presents the following definition of Cubism:

> It views objects relatively: that is, from several points of view, no none of which has exclusive authority. And in so dissecting objects it sees them simultaneously from all sides--from above and below, from inside and outside. It goes around and into its objects. Thus, to the three dimensions of the Renaissance which have held good as constituent facts throughout so many centuries, there is added a fourth one--time.[1]

Gleizes looked to a period when "the fact of moving around an object to seize from it several successive appearances, which, fused into a single image" would "reconstitute it in time," and (would) "no longer make reasoning people indignant."[2] But to an unwilling public, Cubist ideas remained incomprehensible. Cubism, (as were the parallel movements in science and music), was up against ignorance and resistance to change.

Simultaneity, the dynamic principle of Cubism, Orphism and Futurism, was begotten by modern technological city life. In modern music that principle was applied in

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[1]Sigfried Giedion, Space, Time and Architecture (London: 1956), p. 13.

[2]Gleizes and Metzinger, "Cubism", Modern Artists on Art, ed. Robert L. Herbert (Englewood Cliffs, N. J: Prentice-Hall, 1964), p. 15.

two fields: tonality and rhythm.

Composition on more than one tonal plane had been pioneered by such composers as Debussy, Scriabin, and Richard Strauss.[1] Polytonality, the simultaneous presentation of two or more keys, and polyrhythm, the simultaneous presentation of rhythms with different characteristics, were the musical answers to Cubism.

Igor Stravinsky, (b. 1882), (whose achievements are often compared with Picasso's), experimented with polytonality and polyrhythms. Like Picasso, he renounced the idioms in which he had been schooled in order to develop sound-images that would more nearly correspond to the dynamism of modern life. Polyrhythms consisting of contradictory metres and stresses make for temporal ambiguities. Simultaneously presented fragments of thematic material in parallel, but unrelated, keys contrast vertical tension with the horizontal struggle for metrical domination. Stravinsky often plays vertical textures and horizontal constructions in opposition to each other so that a kind of aggression results. Such effects confuse the ear and deny it the reassurance of gravity or location.

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[1] e.g. Strauss' Also sprach Zarathustra combines the keys of C major and B major. Scriabin invented the so-called "mystic" chord of ascending fourths (C-F sharp-B flat-E-A-D), as a replacement for major and minor chords. The first of Bartok's Fourteen Bagatelles (1908) is the first example of two simultaneously sounding melodic parts written in different keys. Prokofiev's Sarcasmes (1911) also contain bitonal passages. Charles Ives, (1874-1954),

The Cubists and the polytonal composers fragmented their subject matter and recombined the facets in a way that challenged the validity of time and space as absolute dimensions. Time as a limited factor in painting, space as a limited factor in music, both were jettisoned in favour of more multi-dimensional structures in painting and music, and both cubism and polytonality attempt to reconcile their media to these new considerations.

Bitonality and polytonality became prevalent in French and Italian music after 1912[1], and between 1912 and 1925 the possibilities of simultaneity were gradually realized.. Rhythmic simultaneity[2] was achieved in polymetric and polyrhythmic writing.

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also experimented with polytonality, quite independently, in his orchestral and piano music before the First World War. His fellow American, Henry Cowell, added to the vocabulary of music with the invention of tone-clusters. Stravinsky's famous Petrushka chord combines the broken triads of C major and F sharp major--a particularly striking effect since keys whose tonics lie a tritone apart have the least number of notes in common. Such innovations opened up new prospects for orchestral colour.

[1]Stravinsky's Petrushka (1911) is an example. Alfredo, (1883-1947), composed in a polytonal style in Notte di Maggio (1914), and his piano Sonatina (1916) has a polytonal minuet and a bitonal finale. Darius Milhaud, (b. 1892), also writes in a polytonal style, incorporating into many of his works jazz elements and folk music.

[2]e.g. Stravinsky's

Rhythm is the mainspring of Stravinsky's art and it is significant that his music has its roots in dance forms. Rhythm is one of the main considerations in abstract painting, too, and it is significant that painters in Paris should be associated with the dance.

Enthusiasm for Wagner's music was still maintained in Paris at a high level, and both Strauss and Mahler won a band of French admirers. (The vogue for Strauss reached its height in 1907--the year of Picasso's Les Desmoiselles d'Avignon--when Strauss himself conducted performances of his Salome in Paris.) Like Wagner, Diaghilev similarly proposed to unite the arts of painting, music and the dance. Diaghilev's Ballets Russes encouraged a new spirit of collaboration between painters and composers.[1]

Between 1909 and 1914, Diaghilev, the director of the Ballets Russes in Paris, drew primarily on Russian artists : Stravinsky the composer, and the painters, Bakst, Benois, Larionov, and Gontcharova. From 1917 on, Diaghilev turned more to French and other national composers and painters for their collaboration: (in addition to Stravinsky and Prokofiev), the composers, Sauguet, Satie, Milhaud, Poulenc, Manuel de Falla and Hindemith, and the painters,

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[1]The contribution of Russian expatriate composers and painters to the development of modern painting and music has been considerable. Such artists as Stravinsky, Soutine and Marc Chagall in France, and Kandinsky, von Jawlensky and Marianna Werefkin in Germany, have done much to blend the disparate artistic threads of Europe into the international cultural community which succeeded to the national schools.

Picasso, Derain, Matisse, Braque, Marie Laurencin, Gris, Utrillo, Max Ernst, and Miro. Co-operation among the artists was a positive means of materially synthesizing their arts. In a sense, a spirit of socialism succeeded to, or rather, transformed, the earlier Bohemianism.

One of Satie's works will serve to illustrate that spirit of collaboration. The most important of his works for the stage, Parade, was written for Diaghilev, on a scenario by Jean Cocteau, with decor and costumes by Picasso and choreography by Massine.[1]

> Parade (1917) has well been called a "cubist manifesto". The Cubist painters broke up the familiar objects of everyday life and reintegrated them in unusual contexts in order to achieve a fresh personal vision. In the same way, Satie's music juxtaposed seemingly incompatible elements and recombined them in a formal integration: snappy fragments of music-hall melody and a strict fugato, lyrical phrases and driving ostinato rhythms, simple diatonic harmonies and clangorous polytonal effects. The inclusion in the score of a typewriter, steam whistle, rattle, and similar noisemakers was allied to the "shock-the-bourgeois" mentality of Paris during the second decade of our century. What reaches beyond the period is the freshness of the montage achieved by Satie...[2]

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[1] "At the time Cocteau was obsessed by visual images, especially the Harlequins, Pierrots and musical instruments in Picasso's painting. As Cocteau recalled later, "My dream was to hear the music of Picasso's guitars," and he set about building his ballet around them..." --"Picasso's Theater Period," Time, August 13, 1965, p. 52.

[2] Machlis, pp. 213-4.

During the 1920's the Ballets Suedois appeared in Paris. On the whole, the dancers and choreography were mediocre, but Jean Borlin, the company's choreographer, had the good fortune to find some first-rate collaborators among the musicians, painters, and poets of the day: the group of composers known as Les Six,[1] and Cocteau, Pirandello, Jean Hugo, de Chirico, and Fernand Léger. Leger designed sets for two ballets: La Patinoire (1921) by Honegger, and La Création du Monde (1922) by Milhaud.

Another interesting parallel between painting and music concerns the introduction and organization of textures, (a consideration of paramount significance in the development of electronic music later in the century.) The first stage of Cubism, "Analytic", concerned with the essentials of form, was followed, in 1910-12, by a "Synthetic phase. "Synthetic" Cubism endeavoured to convey the idea of reality without resorting to illusionism by means of light and shade. Reality itself was introduced in the form of a piece of newspaper, cloth, wallpaper, musical manuscript paper, or other material stuck on to the canvas and combined with painting or drawing to provide contrast or comparison. Music incorporated natural or mechanically produced sounds with musical tones and harmonies, (e.g.

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[1]Auric, Durey, Honegger, Milhaud, Poulenc, and Tailleferre.

Satie's Parade and Antheil's Ballet Méchanique.) Visual and aural collages and montages reflect identical aims: to organize the sights and sounds of technological society into structures that symbolize the values of that society.

The mechanical aspect of the First World War had a profound effect on the Cubist, Fernand Léger, (1881-1955), and resulted in the dynamic phase of his work after 1917. In 1924 he created the first film without scenario, Le Ballet Méchanique, for which George Antheil, (1900-59), wrote music.

> When he wrote the ballet, Antheil was developing a new principle of musical construction, based on rhythm alone. He called it "time-space" and compared it with a canvas on which tunes and chords were applied like colours and shapes. He wrote the ballet originally for an abstract motion picture, but then rewrote it for the concert hall.. The version on this record includes a recording of an airplane engine, two doorbells of different sizes, and four pianos (replacing the original pianolas) on which occasional tone clusters are banged with the palm of the hand. The three-part piece, played without a pause, has been dubbed a "mechanistic dance of life."[1]

Contrasting planes of sounds, musical and unmusical, pointed to cacophony. In opposition to the "horizontality" of Classical and Romantic music, "verticality" in the form of textures became the norm. Noise, tonal densities and

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[1]Ann M. Lingg, sleeve notes, Ballet Méchanique, US5134.

"vertical" conglomerates of sound--new "colours" which challenged the composer's ingenuity and inventiveness. Stravinsky's use of such elements gave rise to a texture based on pure colours so limpid that, as Diaghilev remarked, "One could see through it with one's ears."[1] "You have enlarged the boundaries of the permissible in the empire of sound," said Debussy in a letter to Stravinsky thanking him for his gift of the score of Le Sacre du printemps.[2] Likewise, in the matter of texture, the Cubist had "enlarged the boundaries of the permissible" in the "empire" of vision.

Picasso, Braque, and Gris were foremost among the Cubist constructors of collages. "Braques collages..... follow musical rhythms which transcend the object that is represented, whether the theme of the work is musical or not."[3]

Another parallel between painting and music concerns those facets of the two arts which appeal to the different levels of perception. Marc Chagall, (b. 1887), was,for a time, associated with the Cubists. His highly individual sensibilty welded together in rich "symphonic" colour, disparate figments and images of dreams, childhood,

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[1]Machlis, p. 170.

[2]Donald Mitchell, The Language of Modern Music (London: Faber & Faber, 1963), p. 22.

[3]Popper, p. 39.

and fantasy. Images of the past and from the present, incongruously juxtaposed, challenge the authority of time and space as absolute dimensions. "I will be a musician,"[1] he said in his childhood. In his paintings he has fulfilled his own prophecy; they are bathed in a musical effulgence. "Now your colours sing,"[2] Bakst told Chagall. Chagall's paintings remind us that all art attempts to fuse proportions of thought and feeling, to find appropriate images for them, in order address the conscious and subconscious levels of perception. As a rule, form delimits the external aspects of an aesthetic idea and gives it materiality; the internal aspects are "de-coded" through the internal appects of its expressive elements. It is a dialogue between intellect and feeling, objectivity, and subjectivity, structure and expression, the material and the spiritual, ethos and pathos, and pathos.

On the whole, Cubism proceeded objectively. Its off-shoot, Orphism, was to re-apply the notion of "musical" colour.

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[1] da Silva, von Simson, Hinks, p. 61.

[2] ibid. (Chagall's painting The Green Violinist was inspired by his uncle who played the violin.)

Chapter 8.

ORPHISM AND MUSIC.

Throughout the Cubist period musical analogies were drawn with increasing frequency. Around 1910, some of the newer Cubists set out to "humanise" strict Cubism and to "poeticise" its subject matter.[1] This development, designated Orphism by Guillaume Apollinaire, looked to an absolute painting that would be as independent of nature as music; pictures whose very subject matter would be the spontaneous life of colour, its harmonies and dissonances, and the play of its proportions. The primary characteristic of Orphist art is the pre-eminence of colour, a radical consequence of Gauguin's theory of "orchestrated" colours, and the investigations of the neo-Impressionists and the Fauves. Orphism asserted the primacy of pure colour over form.

Apollinaire first bestowed his epithet Orphism upon the work of Robert Delaunay, (1885-1941), because he felt it to be more lyrical and sensuous than the rather austere Cubism of the period, and also because he saw it as a form of "peinture pure" with analogies to music. "Thus we are progressing towards an intensely new kind of art, which will be to painting what one had hitherto imagined music was to pure literature," he said.[2]

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[1]Haftmann, vol. 2, p. 96.

[2]Golding, p. 35.

Orphism which represented itself as a Cubist heresy moved very quickly towards abstraction. In 1912 Delaunay, the central figure of Orphist painting, arrived at his entirely abstract series, Circular Rhythms and Simultaneous Discs, in which circular areas of colour interpenetrate and revolve around one another in harmonies intended to correspond to the abstract harmonies of musical sounds. "Colour alone," he said, "is form and subject."[1] He extended the language of painting to incorporate spatio-temporal elements of dynamism, rhythm and the movement inherent in colour. Delaunay tried to represent the experience of time through the portrayal of movement.

Frantisek Kupka, (1871-1957), reached abstract colour compositions by way of neo-Impressionism, without going through Cubism as Delaunay had done. Kupka and Delaunay developed independently of each other, yet both arrived at identical conclusions in painting by analogy with music. Kupka wrote:

> Music is the only art of sound which does not exist in nature and must be almost wholly created. Man has created words to articulate his thought. He has created writing, the aeroplane and the locomotive. Why then should he not create in painting and sculpture, independently of the forms and colours which surround him in the world....I believe that I

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[1]Haftmann, vol. 1, p. 113.

> can find something between vision and hearing and that I can produce a figure in colours just as Bach did in music. In all events, I shall no longer be satisfied with a slavish copying of nature.[1]

With the emergence of such ideas, many felt that painting had become completely "musicalized".[2]

In 1911/12 Kupka painted his first abstract work, Fugue in Red and Blue, (musical titles were fashionable at the time), in which concentric rhythms in blue, red, green and black are ranged on a white ground.

Vertical Planes (1913) evolved at the same time as the Fugue and was another aspect of the same idea. In the Fugue Kupka basically demonstrated the concept of rotation on a plane; in Vertical Planes he attempted to define the rising harmonies of the colour scale and the law of upward and downward thrust. In 1912 he painted his Newton Discs, concentric forms in pure colours without representational reference.

In all the works of this period, he deliberately fostered external associations with music, an art in which he was deeply interested, particularly in Bach's structure.

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[1]Popper, p. 48.

[2]John Golding, Cubism: A History and an Analysis, 1907-14 (London: Thames and Hudson, 1959), p. 35.

By 1909 Kupka had achieved a "musical" conception of colour composition. This is demonstrated in his portrait of a friend, entitled Yellow Scale, in which the colour scale ranges from orange to lemon yellow throughout the picture including the background.[1] Another work dating from the same year, Piano Keyboard/Lake, makes external reference to music. The work was originally conceived as a landscape. In the upper part of the composition the original Lake is preserved. To the lower part Kupka later added an almost didactic exposition of the piano keyboard. At the bottom a hand is seen playing the A major chord and tones (as colours) emerge from the centre as if to visualize the sounds.[2]

Kupka and Delaunay were associated with the Section d'Or, the name of an exhibition in 1912, which revived the ideals of Renaissance proportion and musical consonance. Kupka was the forerunner of the Musicalists who formed a group about 1920. Henri Valensi, the inventor of the theory of "Musicalism", pursued a path which lay between music and plastic dynamism.

> Why should we not invent pure painting? Since the musician works with notes, why should we not accept that colour by its intrinsic force is capable of expressing a painter's thought?[3]

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[1]Ludmila Vachtova, Frank Kupka (London: Thames and Hudson, 1968), p. 69.

[2]ibid., p. 102.

[3]Golding, p. 35.

Valensi was attracted to the idea that colours and musical tones corresponded in audition colorée, but Kupka did not concur with him in that belief, and would not sign the Musicalist manifesto published by Valensi in 1913, which declared that "in order to interpret new forms of life the arts must be more musical."[1]

Valensi eventually went over to Colour Music in order to explore the possibilities of animated colour. His constant dream was the introduction of symphonic musical movement into his plastic works.

> What Valensi intended was that the picture, itself a preliminary and preparatory moment, should be wholly composed in view of its further development in the film; the film was to be the authentic work, the goal and ideal of the artist's effort. Certainly it was a symphony that he dreamed of, and he realizes it patiently, image by image, with the techniques of animated drawing.[2]

Francis Picabia and Blanc-Gatti also joined the Musicalists. Of Picabia, an American critic wrote that "the comparison that Picabia is fondest of making is that of pure music."[3]

Picabia, Kupka, Delaunay, and Kandinsky arrived at abstract painting, independently, and by drawing direct relations with music. Painting had become non-representational, as music is fundamentally non-representational.

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[1]Vachtova, p. 258.

[2]Popper, p. 174.

[3]Golding, p. 35.

Chapter 9.

FUTURISM AND MUSIC.

> "All the new art which is being elaborated in France seems to have hardly held on to a melody and the Futurists have come to teach us--by their titles not by their works--that it could be elevated to a symphony"--Guillaume Apollinaire.[1]

In 1895 the first Venice Biennale confronted Italian painters with French, German, Austrian and Swiss works.[2] Such exhibitions as the Biennale and the international exposition of decorative arts in Turin acquainted the young Italian painters with the Symbolism, Jugendstil, and Secessionism of a changing artistic climate. So far the aesthetic pendulum had swung between Paris and Munich. Now Italian painters struggled against their country's acceptance of her inferior position in European art, and modern ideas took shape in a climate of furious controversy.

In order to join the main stream of modern developments in art, a small group of Italian artists, continually varying in composition, formed around Ardengo Soffici and Gino Severini in Paris. They were visited occasionally by the wealthy and widely travelled poet F. T. Marinetti.

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[1] Marianne W. Martin, Futurist Art and Theory 1909-1915 (Oxford: Clarendon Press, 1968), p. 124.

Between the years 1900 and 1905 the Italians quickly absorbed the phases of modern European art, from the Jugenstil to Impressionism and Cézanne, and on to the Cubists, until their pictorial conceptions had attained the general European level. They were particularly attracted to the pictorial architecture of Cubism, admiring, as Soffici expressed it, "the sober consistency of the bodies and objects, the weight, the gravitation of the masses, the balance of the planes and volumes."[1] Distilling the essences of modernism, the Italians paved the way for their country's first important contribution to the art of the twentieth century: Futurism.

Futurism was the Italian expression of an art which adopted a contemptuous attitude to the glories of the Italian cultural heritage. On February 20, 1909, Marinetti launched the first Futurist manifesto, strategically choosing Paris where cultural ferment was at a high pitch. Ultra-nationalistic and shockingly aggressive, the manifesto dealt almost entirely with the situation in Italy. The rhythm of modern life, speed, and the aesthetics of the machine were extolled as heralding a new era for Italy.

A year later the first manifesto of Futurist painting, signed by Umberto Boccioni, Carlo Carra, Luigi

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[2](Previous page). Among the painters represented were Puvis de Chavannes, Moreau, Redon, Klimt, and Stuck.

[1]Haftmann, vol. 1, p. 105.

Russolo, Giacomo Balla, and Gino Severini was published. This was followed by the Manifesto tecnico (1910), Manifesto dei drammaturghi (1910) drawn up by Marinetti, Manifesto dei musicisti futuristi (1911) by the composer Francesco Balilla Pratella, and La Musica futurista, manifesto tecnico (1911).

Pratella, (b. 1880), followed the painter's manifesto in repeating Futurist principles as they applied to the Italian music of the time. Like the painters, he was fully acquainted with the various trends in his field. Discarding the traditional values of consonance and dissonance, he advocated tonal, modal, and rhythmic changes (with which a number of European composers were already experimenting.) Such ideas were in the air. The technical manifesto established in its final sentence that the musician must "add the power of the machine and the victorious reign of electricity to the great central motifs of the musical poem."[1] In 1913 this became the central thesis of Russolo's daring conception of an art of noises.

Russolo studied music, and then painting at the Milan academy. Like many painters of the twentieth century he was a gifted musician and played the piano, the violin, and the organ. From his musical experimentation emerged considerations which were to provide a different outlook for the future of music. He has been called a "forgotten

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[1]Martin, pp. 48-9

master" at a time when "néo-Russolians a la John Cage, Varèse or Schaeffer (music concrete) swell with impudence."[1] In the course of 1913/14 he refined his ideas into a complex system of noisemaking and performances were given on the Intonarumori, which he had invented. In his manifesto, The Art of Noises, were to be found proto-Dada ingredients. After the publication of the Art of Noises Russolo neglected painting until 1942, concentrating, rather, on developing an intricate form of musical composition which foreshadowed the more extreme experiments made before and after the Second World War by composers such as Varèse, John Cage, Morton Feldman, Earl Brown, and electronic composers.

Carra explored relationships among the senses. In his manifesto La Pittura dei suoni, rumori, odori he suggested that the artist should live in a creative frenzy, becoming "a vortex of sensations, a pictorial force, and not a cold, logical intellect...painting sounds, noises and colours the way drunkards sing and vomit."[2] In 1914 he created his Dipinto parolibera--Festa patriottica, (Free-word painting--patriotic celebration), as a visual counterpart to Russolo's Spirali di rumori intonati, (Spirals of Intonated Noises). The three Spirali, performed on the Intonarumori in 1914, reflected particular Futurist subject

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[1]Martin, p. 70.

[2]ibid., p. 136.

Risveglio di una citta; Si pranza culla terrazza del Kursaal Convegno d'aeroplani e d'automobili.

The painter and sculptor, Boccioni, attemted to give his picture surfaces "musical" animation, and to concretize flickering motion. Rissa in Galleria (1910-11), a painting which marks the starting point of Futurist theory in practice, has this "musicality". The complexity of the composition is comparable, in its counterpoint of rhythms, to the rhythmical experimentation advocated by Pratella in his manifesto of music. Boccioni spoke of the aspirations of the visual arts towards music, selecting Michelangelo from among the old masters as the one "who potentially came closest to the state of mind. For him anatomy becomes music...and the melodic lines of the muscles follow each other according to musical principles, not the law of logical representation."[1] Boccioni's works combine rationally discontinuous motifs as in musical composition, (e.g. his sculpture Forme uniche della continuita nello spazio). Of those who saw his sculpture in 1913, perhaps only his admirer, Ferruccio Busoni, understood its profound originality and significance when he remarked: "Compared to this art.....Schonberg's Pierrot Lunaire is a tepid lemonade."[2]

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[1]Martin, p. 93.

[2]ibid., 172.

Futurists regarded movement, speed, and the simultaneity of all sensory impressions as the new "absolute of modernity," fusing in painting, objects in motion and environment, and in music, natural sounds, musical tones, and mechanical sounds. "While the Impressionists create a picture in order to render a particular moment, and subordinate the life of the picture to this moment, we synthesize all moments (time, place, form, colour-tone) and so construct a picture."[1]

Chapter 10.

EXPRESSIONISM: PAINTING AND MUSIC.

More than any previous movement in Germany, Der blaue Reiter, the second phase of Expressionism (succeeding to Die Brücke), regarded musical concepts as indispensible elements in the development of painting. Music, the "soul" of Expressionist painting, gave rise to detailed "musical" theories of painting which have influenced particular schools of abstract painting in many different parts of the world.

The Germanic tradition, to which the Blaue Reiter group was heir, had always held that the arts were united in intersensory experience. At the turn of the century, the experiments of Freud in the field of Psychology renewed interest in that supposition. Psychology was delving into the realm of feeling and its conclusions were to revolutionize art. Artists looked for symbols that would render visible feeling. "How happy I would be if I could give figurative expression to the unconscious feeling that murmurs so softly and sweetly within me,"[1] wrote Paula Modersohn-Becker.

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[1]Haftmann, vol. 1, p. 82.

As did the Symbolists, German artists defied the materialistic attitudes of the scientific revolution and aimed to resolve the contradiction between the material and the spiritual. Some fulfilled such aspirations in "colour" music[1]--extensions or variations of Wagner's Gesamkunstwerk. Others sought to awaken imaginative responses in direct translations from one medium to another. Whatever the mode, artists tried to express spiritual feeling through the material symbols of their media.

At the end of the nineteenth century Romanticism was in the final stages of its development. Strauss, Mahler, and Bruckner mark those stages. Debussy, Scriabin, and the young Kandinsky and Schönberg, Edvard Munch and the painters of Die Brücke, belong to the transitional period where nineteenth and twentieth century ideas merge.

The association of painting and music had been a favourite idea of the Romantics. At the turn of the century it "coloured" the imagination of every thinking painter and composer in Germany, (as it had done in France, and was so to continue.) August Endell, (1871-1925), looked to an art that would operate "with freely found forms, as music with free tones."[2]

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[1]See Appendix.

[2]Haftmann, p. 137.

In 1891 Edvard Munch's painting, Jealousy, called forth a comment which already clearly demonstrates the need for new critical perspectives in order to come to terms with the painters responses to their changing visual environments. "The latest catchword today is "sonorous" colour. Have colours ever before been so sonorous? Perhaps this is music rather than painting."[1] The same sorts of analogy attended movements in France, but German painting and music were the products of a rather pantheistic hysteria shrieking out the joys and agonies of a lonely heart. The feeling of community, which united French painters in Impressionism, Pointillism, Fauvism, Cubism, Orphism, and so on, does not appear to prewail in German art. Even in groups such as Die Brücke and Der blaue Reiter, pre-eminence is given to the expression of the deepest recesses of the human soul: this emphasis tends to isolate artistic personalities. Emil Nolde, (1867-1965), exclaimed:

> Colours, the materials of the painter; colours in their own lives, weeping and laughing, dream and bliss, hot and sacred, like love songs and the erotic, like songs and glorious chorals! Colours in vibration, pealing like silver bells and clanging like bronze bells, proclaiming happiness, passion and love, soul, blood and death.[2]

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[1]Haftmann, p. 61.

[2]Patricia Sloane, p. 37.

Though working in complete isolation, Scriabin and the Lithuanian, Ciurlionis, independently, arrived at the same ideas which they expressed through different media. Art was for both of them a mystical experience, and their works are memorable in their expression of remoteness, heightened emotion, and strange, weird atmospheres--for these are the subjects of their art of the senses.

> A painter who much interested me--he was possibly the most talented member of the Russian School at the beginning of the century--was the Lithuanian M. K. Ciurlionis. I myself bought a handsome picture by him... It depicted a row of pyramids, of a pale nacreous tint, in flight towards a horizon.[1]

Ciurlionis, (1875-1911), had an extraordinary synaesthetic gift. He tried to draw serious conclusions between painting and music from the external comparison between coloured and musical tones. As a child he was a musical prodigy. Later, on graduating from the Warsaw Conservatory, he devoted himself to musical composition. Suddenly, in 1905, he turned to painting with the aim of painting music in colour compositions which he conceived as symphonic movements. To these he gave such titles as "Ocean Sonata," "Sun Sonata","Snake Sonata", and they contain such musical directions as Andante, Scherzo, etc.[2]

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[1]Igor Stravinsky, Expositions and Developments (London: Faber& Faber, 1962), p. 27.

[2]Haftmann, vol. 1, p. 136.

Scriabin's music and Ciurlionis' paintings founded no specific schools in Germany, but the circle of Russian artists who formed a small colony in Munich before the First World War advanced their ideas with enthusiasm. Wassily Kandinsky, (1866-1944), went to Munich in 1909. With Alexei von Jawlensky and Mariana Werefkin he founded the Neue Künstler vereinigung from which the Blaue Reiter later sprang. The young pianist, composer and writer, Thomas von Hartmann also joined this group. He was a supporter of Scriabin whose "colour" music influenced him in his collaboration with Kandinsky as composer in the mult media project, Der gelbe Klang.

Der blaue Reiter was a loosely-knit group of like-minded artists. It included Franz Marc, August Macke, Heinrich Campendonck, Gabrielle Munter, the composer Arnold Schönberg, Kandinsky, Paul Klee, and von Jawlensky. The first Blaue Reiter exhibition held in Munich in 1911 also included works by the two French painters who Kandinsky regarded as the cornerposts of modern painting--Delaunay and Rousseau.

The importance of music in the movement is evident in the Blaue Reiter catalogue (1912). It contained, besides articles on painting, an essay by Hartmann on anarchy in music, an article by Leonid Sabaniev on Scriabin's Prométhée, compositions by Schönberg and his pupils, Berg and Webern, and other contributions. Thus, the main agents of change converged in German art.

Kandinsky was greatly impressed by Wagner's music. In Lohengrin, he said, "it became entirely clear to me that art in general is much more powerful than I had realised and that, on the other hand, painting can develop just as much power as music possesses."[1] He carried much further the ideas of Scriabin and Ciurlionis: as a painter and musician he was well qualified to follow in their traces.

> From early childhood Kandinsky passionately loved colours and he painted already as a little boy. Colours mark the events of his life. Among colours he distinguished the particular smell and musical sound of each--I say musical because Kandinsky was also a musician; he played the piano and the 'cello.[2] One senses his musical gift in all his work.

Hermann Bahr, Viennese mouthpiece for the Jugendstil, looked forward to a public "which no longer asks for the object, but is happy to listen to the music of the colours."[3] Henri Ravel said that the "laws of harmony" were the same for painting and music.[4] Kupka, Delaunay, and Kandinsky were firm in that conviction.

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[1]Kandinsky, "Reminiscences", Modern Artists on Art, ed. Robert L. Herbert (Englewood Cliffs, New Jersey: Prentice-Hall, 1964), p. 26.

[2]Nina Kandinsky, "Some Notes on the Development of Kandinsky's Painting", The Documents of Modern Art, vol. 5 (New York: George Wittenborn, 1966), p. 9.

[3]Haftmann, vol. 1, p. 54.

[5]Kandinsky, "Concerning the Spiritual in Art", Documents of Modern Art, vol. 5, p. 67.

Colours mark the events of Kandinsky's life.

> Generally speaking, colour directly influences the soul. Colour is the keyboard, the eyes are the hammers, the soul is the piano with many strings. The artist is the hand that plays, touching one key or another purposively, to cause vibrations in the soul.[1]

Fauvism influenced German Expressionism in the acceptance of colours as values in themselves. Kandinsky believed that colour could be the sole means of artistic expression in painting and need not refer to specific objects in nature; that colours could be regarded as values in painting as tones in music; that (as Worringer had suggested) the introduction of objects into a painting might interpose serious obstructions between the work of art and the empathy of its viewer. Kandinsky wanted an art that would address itself directly to the human soul, without let or hindrance. He found the means in colour. "Colour," he wrote, "itself offers contrapuntal possibilities and, when combined with design, may lead to the great pictorial counterpoint..."[2] When Otto Fischer, spokesman for the Neue Künstlervereinigung, wrote in 1912, that colour was a "means of expression which appeals directly to the soul. Colour is a means to composition,"[3] he was merely restating, not only Matisse' theories, but the

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[1]Kandinsky, p. 45.

[2]ibid., p. 51.

[3]Haftmann, vol. 1, p. 93.

beliefs of Expressionists such as Kandinsky, Klee, and the Orphists, Kupka, Delaunay and Picabia.

"Next to music, painting will the second art inconceivable save in terms of construction, and already inconceivable otherwise today,"[1] Kandinsky declared. "Matisse--colour. Picasso--form. Two great signposts pointing toward a great end."[2] Now the task was to "obtain the status of rule; to uncover the principle capable of serving as a rule,"[3] as Le Corbusier had written (with regard to the new architecture.) "Every combination of notes, every advance is possible, but I am beginning to feel that there are definite rules and conditions which incline me to the use of this or that dissonance,"[4] wrote Schönberg.

By drawing analogies with music Kandinsky moved into the realm of pure abstraction in painting. "Painting has caught up with music, and both have a constantly growing tendency to create "absolute" works, that is, completely objective works which, like the works of nature, grow "from themselves" purely according to laws as independent beings."[5]

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[1]Will Grohmann, Kandinsky: Life and Work (New York: Harry N. Abrams, n.d.), p. 70.

[2]Kandinsky, p. 39.

[3]Le Corbusier, The Modular (London: Faber & Faber, 1954), p. 109.

[4]Kandinsky, p. 35, (from Schönberg's Harmonielehre)

[5]Kandinsky, Reminiscences, p. 40.

> Music is found to be the best teacher. For some centuries, with few exceptions, music has been the art which has devoted itself not to the reproduction of natural phenomena, but to the expression of the artist's soul and to the creation of an autonomous life of musical sound.
>
> A painter who finds no satisfaction in mere representation, however artistic, in his longing to express his internal life, cannot but envy the ease with which music, the least material of the arts today, achieves this end. He naturally seeks to apply the means of music to his own art. And from this results modern desire for rhythm in painting, for mathematical, abstract construction, for repeated notes of colour, for setting colour in motion, and so on.
>
> Comparison of means among the arts and the learning of one art from another can only be successful when the application of the lesson is fundamental. One art must learn how another uses its method, so that its own means may then be used according to the same fundamental principles, but in its own medium. The artist must not forget that each means implies its proper application, and that it is for him to discover this application.[1]

Kandinsky's "principle capable of serving as a rule" was the principle of inner necessity." In the Blaue Reiter catalogue Thomas von Hartmann applied this principle to music: "In all art, and in music in particular, every means that derives from inner necessity is correct."[2]

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[1]Kandinsky, Concerning the Spiritual in Art, p. 40.

[2]Grohmann, p. 72.

Like the Cubists, Kandinsky came to recognize the significance of time in painting.

> I felt that his, (Rembrandt's), pictures "last a long time", and explained it to myself that I had first to exhaust one part continuously and then the other. Later I understood that this division magically produces on the canvas an element which is originally foreign and inaccessible to painting --time.[1]

Kandinsky's theories are outlined in his Concerning The Spiritual in Art, a work which deals with "musical" construction in painting, (he distinguishes between melodic and symphonic construction), symbolic colour, and the application of "inner necessity".

If Kandinsky was the "symphonist" among Blaue Reiter painters, Paul Klee, (1879-1940), was the musicien intime. Intimacy is the keynote of his paintings. Klee was an outstanding violist and played in a string quartet. There is something of the quality of chamber music in his works.

Klee translated a feeling for the motion and rhythm of music into visual symbols. "Ingres is said to have created an artistic order out of rest; I should like to create an order from feeling, and, going still further, from motion."[2] "Motion is the root of all growth".[3]

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[1] Kandinsky, Reminiscences, p. 40.

[2] Paul Klee, The Thinking Eye, ed. Jürg Spiller (London: Lund Humphries, 1961), frontespiece.

> I am going to reach out into the field of music. Here the basic structure lies in the beat more or less subconsciously; but it is felt through the sound as a structural framework over which the quantities and qualities of the musical ideas move.[1]

Klee wanted to explore the melodic and rhythmic qualities of line and colour, especially when combined in a kind of visual polyphony ("a line equals a voice"[2]).

> Simple movements strike us as banal. The time element must be eliminated. Yesterday and tomorrow treated as simultaneous. In music this need was partly met by polyphony. The quintet in Don Giovanni is closer to us than the epic movement of Tristan. Mozart and Bach are more modern than the nineteenth century. If in music the time factor could be overcome by a step back acceptable to our consciousness a late flowering might still be possible...Polyphonic painting is superior to music because its time is more spatial. The idea of simultaneity comes out more richly. The reflection in the side windows of a moving tram car gives an idea of the backward movement I have in mind for music. Delaunay tries to follow the example of a fugue and put the pictorial accent on the time factor...[3]

Of his Fugue in Red (1921) he wrote:

> The repetitive factor characteristic of structures is here the concept of increase or decrease which is repeated at every step. If the naturally

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[1]Klee, p. 271.

[2]ibid., pp. 286-7.

[3]ibid., p. 520.

> ordered movements perceived with the ears instead of the eyes is comparable to the movements of natural tones, the artfully ordered movement is reminiscent of the structural division of the tones we find in the musical scale.[1]

By analogy with music Kandinsky and Klee arrived at intelligible explanations of the essences of abstraction in painting. At the same time their teachings drew painting and music very much closer together. "Today a synthesis between the worlds of sound and appearance seems to be a possibility,"[2] said Klee.

Colours also marked the events of the life of Arnold Schönberg, (1874-1951), composer, teacher, writer, and painter. In his Harmonielehre of 1911 he distinguished three properties of musical sound: pitch, colour, and intensity, pointing out that of the three, only pitch had so far been measured, and that little attempt had been made to measure or in any way organize colour and intensity.[3] He defined pitch as one of the dimensions of timbre ("tone-colour"): "Pitch is in fact simply tone-colour measured in one direction."[4] And he imagined a future time when music would be constructed from "timbre-melodies."[5]

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[1] Klee, p. 490.

[2] ibid., p. 521.

[3] H. H. Stuckenschmidt, Twentieth Century Music (London: World University Library, 1969), p. 52.

[4] ibid.

[5] ibid.

He first experimented with timbre in the third of his Five Pieces for Orchestra Op. 16 in 1909. This piece he entitled "Summer Morning by a Lake", adding in brackets the word "Colours".

Schönberg's development of the technique of composing with twelve tones defunctionalized the chromatic system which he had inherited. "Schönberg...developed the chromatic concept of Wagner into a new technique."[1] Because the twelve-note discipline of composition establishes no hierarchy of notes,(all notes being equal, there being no prevailing key), the sense of gravity is utterly destroyed. So, too, in abstract painting colours are juxtaposed in "l'espace spirituel" and float in a sort of suspended weightlessness.

> ...the unity of musical space demands an absolute and unitary perception. In this space...there is no ansolute down, no right, no left, forward or backward. Every musical configuration, every movement of tones has to be comrehended primarily as a mutual relation of sounds, of oscillatory vibrations, appearing at different places and times. To the imaginative and creative faculty, relations in the material sphere are as independent from directions or planes as material objects are, in their sphere, to our perceptive faculties.[2]

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[1] Jean Papineau-Couture, The Modern Composer and His World , p. 33.

[2] Schönberg, (quoted Peter Yates, Twentieth Century Music). cf. Ernst Krenek, The Modern Composer and His World, p. 67: "...just as it is possible to appreciate an abstract painting from whichever angle one looks at it because the notions "right", "left","top", and "bottom" are not any longer inherent in the object, we can visualize

This is a very brief account of Schönberg's achievements in the field of sound, but it does serve to illustrate the close parallels in thinking between this great explorer and the other members of the Blaue Reiter group: time and space are interfused; metaphors are confused; techniques are closely paralleled; intentions in the different media are identical; both developed theories which allow their media to function at maximum tension; both later had an important influence internationally.

Lyonel Feininger, (1871-1956), an independent Expressionist,[1] was the son of German immigrants to America who were both musicians. Having shown early a marked talent for music, he went to Germany to study, but in 1887 he decided to devote himself to painting instead. He was especially noteworthy, in addition to his paintings, for the composition of a number of organ fugues that were performed in Germany and Switzerland between 1921 and 1926.

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music in which the notions "earlier", "later", "forward", and "backward" have become similarly irrelevant."

[1]Klee, Kandinsky, Feininger and Schönberg were friends in common.

Chapter 11.

DADA.

The origins of Dada are a little uncertain. In that similar phenomena occurred in different parts of the world at roughly the same time, Dada transcended the national hostilities of the First World War in an international wave of protest sustained by the agonies of the time. With the First World War, artistic (as well as ruling) monarchies collapsed. Fauvism, Cubism, Orphism, Futurism, Der blaue Reiter, all were casualties of the War, although a great many of their members were fortunate enough to survive it. But they must first pass through the vortex of Dada before they attempt to reconstruct their pre-war empires.

Swiss Dada, the first organized (or should one say disorganized?) group began in 1916 at the Cabaret Voltaire in Zurich. Its founder, Hugo Ball, saw his cabaret evenings become a kind of "total art", such as Wagner might have visualized, in which lectures, readings, musical performances, ballets, and pictures were linked. Georges Hugnet, the Surrealist poet described a typical proceedings

> On the stage someone thumped keys and bottles until the audience, nearly crazy, protested. Serner, instead of reciting poems, laid a bouquet at the

> foot of a dressmaker's dummy. A voice from beneath anenormous hat shaped like a sugar-loaf declaimed Aro's poems. Huelsenbeck bellowed his poems, while Tzara emphasized the rhythms by banging on a bass drum.[1]

At first, Dada was a movement involving painting and poetry only. But the Dada revolution soon carried over into architecture, music, typography and articles of everyday use. Dada was deliberately anti-art and anti-sense, and its anarchic spirit tried to outrage, provoke and scandalize. Dada felt that if war made sense, then the world of nonsense was preferable.

The Dadaists had no feeling for the new in art as opposed to the old, yet their world of nonsense gave rise to many considerations which, subsequently adopted and developed,enriched painting, sculpture, music and poetry. Products of nonsense greatly enlarged the boundaries of the permissible in the arts. "It is not easy to be nonsensical," Marcel Duchamp observed, "because nonsensical things so often turn out to make sense."[2]

The central experience of Dada which marked it off from all preceding movements was the notion of chance, a piece of nonsense which has turned out to make a great deal of sense. Dada concluded that chance must be regarded as a new stimulus to artistic creation. Richter said:

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[1] "Dada", A Dictionary of Modern Painting.

[2] Calvin Tomkins, "Marcel Duchamp", Ahead of the Gam Four Versions of the Avant-garde (Penguin, 1968), p. 41.

> We were concerned with chance as a mental phenomenon. It was not until later that I discovered that psychologists, philosophers and scientists were facing the same intractable problem at the same time.[1]

Marcel Duchamp believed that chance was an expression of the subconscious personality. "Your chance is not the same as my chance," he explained, "just as your throw of the dice will rarely be the same as mine."[2]

> ...Duchamp's greatest folly--dropping pieces of thread on the canvas and varnishing them where they fell--dramatized the importance that chance plays in painting, an seems an extraordinary lucky hunch to a generation familiar with Jackson Pollock's drip paintings.[3]

> Hans Arp cut out bits of coloured paper and, with deliberate abandon, tossed them on a piece of cardboard, threw them around, and finally turned them over and pasted on the cardboard the pattern that they formed by chance.[4]

Chance has come to play an increasingly important part in the arts, particularly in music.

> Another important reassessment has been that accorded to the elements of improvisation, and even chance. This ranges from the tachiste use of both elements in the work of John Cage to the much more consciously integrated and ordered use of it in Stockhausen and Boulez.[5]

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[1]Hans Richter, Dada: Art and Anti-Art (London: Thames and Hudson, 1965), p. 55.

[2]Tomkins p. 36.

In 1913, Marcel Duchamp and his sisters, Yvonne and Magdeleine, drew the notes of the musical scale at random from a hat, setting them down in the order drawn. The resulting composition, which they called Musical Erratum, was, for Duchamp, a lighthearted expression of their own personal chance rather than a purely random creation.[1] Duchamp's heir is John Cage, described by Stravinsky as "the unique example of Dada in music."[2]

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[3]"Pop's Dada", Time, February 5, 1965, p. 33.

[4]Kepes, p. 195.

[5]Iain Hamilton, The Modern Composer and His World, eds. John Beckwith and Udo Kasemets (University of Toronto Press, 1961), p. 52.

[1]Tomkins, p. 36.

[2]Igor Stravinsky, Expositions and Developments p. 93.

Music played a subservient role, at first, in the Dada programme, but later assumed an importance equal to literature and the visual arts. From Futurism, Dada appropriated noise music (or Bruitism), one of the most significant contributions to modern music.[1] Edgard Varèse, who was associated with New York Dada, was to find Bruitism a positive source of inspiration. Bruitism is the parent of present day electronic music and musique concrète.

Another development of importance to modern music was the technique of photomontage, a product of Berlin Dada (1918-23). Raoul Hausmann said: "We called this process photomontage because it embodied our refusal to play the part of the artist. We regarded ouselves as engineers, and our work as construction: we assembled (in French: monter) our work, like a fitter."[2]

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[1] "Von Marinetti übernehmen wir den Bruitismus, le concert bruitiste.....le bruit, das Geräusch, sollte im Anfang wohl nichts weiter als ein gewaltsamer Hin weis auf die Buntheit des Lebens sein. Jede Bewegung bringt natürlich Geräusche hervor. Während die Zahl--und deshalb auch die Melodie--Symbol ist, somit Abstraktionsfähigkeit voraussetzt, ist das Geräusche der direkte Hinweis auf die Aktion. Musik ist so oder so ein harmonisbhe Angelegenheit, eine Kunst, eine Tätigkeit der Verkunft--Bruitismus ist das Leben selbst, das man nicht beurteilen kann." --Huelsenbeck. Rudolf Klein, Kurt Blaukopf, "Dada in der Musik", Dada: Monographie einer Bewegung, eds. Willy Verkauf, Marcel Janco, and Hans Bolliger, (Verlag Arthur Niggli AG, Teufen AR, 1958), pp. 72-3.

[2] Richter, p. 118.

Montage techniques enable the (electronic) composer to work directly with his medium, superimposing created and natural sounds. The composer, too, is an engineer, a constructor, creating additively, as does the constructor of collages and montages. In terms of parallels of organisation, the electronic composer and the painter have drawn very close. John Cage calls the composer an "organizer of sound."[1]

Dada's characteristics--improvisation, chance, automatism, spontaneity-have opened up a new realm of invention and innovation. A movement which sought to ignore or destroy the world of sense, in a negative gesture of artistic anarchy, deposited a rich sum of experience in the general artistic fund from which subsequent movements in painting and music could draw with profit. Dada de-institutionalized highly tradtional institutions.

While music has been greatly influenced by the discoveries of Dada, it was, in part, responsible for those discoveries. Many of the Dada painters drew parallels between their art and music.

> Ferruccio Busoni, with whom I sometimes discussed my problems by the Kaspar Escher fountain in front of the Zurich railway station, advised me to study the principles of counterpoint, since my experimentation with positive and negative shapes, my "black-and-white obsession", showed analogies with contrapuntal theories He suggested that I should play through the little preludes and fugues that Bach wrote for his wife. This would teach me,

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[1]John Cage, Silence (Wesleyan University Press, Connecticut), p. 5

> he said, better than any explanation, the spiritual beauty that lay in this principle. So, by chance, I came upon the analogy between painting and music.[1]

Richter's first encounter with the arts took place through music. "As a child, I often used to hide under the piano at my mother's weekly musical evenings and listen, overcome with emotion."[2]

Richter found that a fellow artist, Eggeling, had "arrived at his theory by way of music, and always explaine it in musical terms." "He came from a very musical family (to this day there is an "Eggeling's Music Shop" in Lund, Sweden, where he was born."[3]

> As his starting-point, Eggeling had taken the most elementary pictorial element, the line, and he was working on what he called its "orchestration" (a concept first used by Gauguin in speaking of colour). This was the interplay of relationships between lines which he had arranged (as I had done with positive and negative surfaces), in contrapuntal pairs of opposites, within an all-embracing system based on the mutual attraction and repulsion of paired forms. This he called Generalbass der Malerei. The drawing that had impressed me so much at our first meeting was, he told me, the product of his systematic use of this Generalbass.[4]

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[1] Richter, p. 63.

[2] ibid.

[3] ibid.

[4] ibid.

Richter and Eggeling both turned to films for the solution of the problem--time--which they had encountered in painting."I had no intention whatsoever of continuing to make films, but the new dimension t, and the possibility of orchestrating time as I had orchestrated form, drew me to the film more and more."[1]

> He (Richter) remebers that "something musical", a "Melody of forms and colours", had always haunted him....Their((Richter and Eggeling) purpose was to make the picture a rhythmical development of formal themes. In thousands of experiments, both artists attempted to build complicated rhythmical sequences out of simple elements. The technique they used to achieve a temporal sequence of movements had already been applied by Delaunay. They elongated the picture so that it was impossible to take it in at one glance, thus forcing themselves, and the beholder, to read of the individual pictorial elements one after the other, as one reads a message written on a strip of paper. A study of Chinese alligraphy soon suggested a better solution--the scroll. As this was unrolled, the formal theme was developed in a period of time comparable with that for the unfolding of a fugue in music. In 1919, Richter painted his first scroll-picture, Prelude, which was followed by others, many of which bore the title fugue or orchestration.--Werner Haftmann.[2]

The film was one solution to the problem of fusing time and space: kinetic art was another. Science engendered both art forms, unique to the twentieth century.

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[1]Richter, p. 197.

[2]ibid., p. 220-1.

Like the musicalists, neither Richter nor Eggeling could resolve the apparent multi-dimensional confusion in their painting. As a result they turned to multi-media art forms.

Other Dadaists explored the realm of the sub-conscious mind in Surrealist art. Occasionally, the spirit of Dada rises to remind painters and composers of an indispensible element necessary to artistic creation--surprise.

CODA.

> "The difference between a Kandinsky and a doodler, a Schönberg and a lunatic, was apparent to only a few imaginative and highly trained perceivers in 1912."--Stravinsky.

The interfusion of painting and music reached its peak before the First World War. In that period the two arts drew level, influencing each other, coinciding in idiomatic parallels of invention and innovation, and setting patterns of development which have srved them both in the intervening fifty years. In the period of reconstruction following the War, those aspects of Cubism, Orphism, and Expressionist doctrine powerful enough to survive both the onslaughts of War and Dada, were turned to positive account. More and more, the machine forced itself upon the artistic consciousness, challenging the visual and aural imagination, and inspiring confidence and optimism where there had been suspician and pessimism.

Whereas the Romantics had found an inexhaustible source of inspiration in nature, the new painting and music turned to the imagery of the city. With the mechanization of Western society many came to feel that man had surrendered his soul to forces he neither understood nor controlled. The machine became a symbol of power motion and energy; a symbol of what was termed the "dehumanization" of art. A new confidence in the machine led artists to glorify the locomotive, the dynamo, and the tur-

bine in their music.[1] The new symbols lent themselves to the spirit of objectivity which succeeded the anarchic Dada movement. A machine sensibility has informed much of the painting and music of the twentieth century since the 1920's.

Darius Milhaud wrote musical settings for "descriptions of machinery taken from a catalogue" that he had "brought back from an exhibition of agricultural machinery."

> Not a single critic understood what had impelled me to compose these works, or that they had been written in the same spirit as had in the past led composers to sing the praises of harvest-time, the grape harvest, or the "happy ploughman", or Honegger to glorify a locomotive, and Fernand Leger to exalt machinery.[1]

Machinism was a major consideration in relating music, a time-based art, to painting, an art of space. Of his painting, Nu descendant un escalier, Duchamp remarked: "This picture is not a painting, but an organization of kinetic elements--an expression of time and space through the abstract representation of movement."[2] Fernand Léger, Kupka, Calder, kinetic artists--the machine became necessary to their art.

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[1]Darius Milhaud, Notes Without Music, trans. Donald Evans, ed. Rollo H. Myers, (A. A. Knopf, New York, 1953).

[2]Popper, p. 50.

The interfusion of painting and music before the War was the result of the application of a scientific attitude. After the War painters and composers began to explore the possibilities of the products of science--sound-producing machines, light-producing machines, motors, and electronics.

Electronic music, which came to the fore, shortly after 1950, eliminates the performer, and enables the composer to reach his audience directly, as the painter does, without the intermediary of the interpreter's personality.

The principle schools of electronic music are French, American, and German. The French composers merit particular attentiom since their method of composing closely resembles the photomontage techniques of Berlin Dada in the 1920's.

> From this radio-engineering world emerged Pierre Schaeffer to present a "Concert of Noises" from Paris in 1948. This was the so-called musique concrète, using natural sounds to build up montages by phonographic techniques--techniques quickly transferred to the newly-perfected tape recorder.[1]

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[1]Douglas Lilburn, "Electronic Music", Third Stream, April, 1968, p. 45.

Pierre Boulez, Messiaen, and Sauguet have produced a few Concrete pieces as by-products of their main activities. Edgard Varèse, Luc Ferrar, Yanis Xenakis, and Henry have synthesized natural and musical sounds. (Xenakis is an architect as well as a composer, and was one of Le Corbusier's collaborators.)

> Musique concrète. Recognisable sound-effects in electronic composition offer moments of high-definition information which act as focal points in their context, generating perspective much as the vanishing point and the light source function in classical painting.[1]

Space has come to the foreground in electronic music. Edgard Varèse was one of the first composers to bring the concept to a significant stage of development.

> My first physical attempt to give music greater freedom was by the use of sirens in several of my scores, and I think it was these parabolic and hyperbolic trajectories of sound that made certain writers as far back as 1925 grasp my conception of music as moving in space.[2]

Varèse worked on and off on what might be called a "montage in space", entitled Espace, to be simultaneously broadcast from various points of the world.

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[1]R. J. Maconie, "Electronic Music", Third Stream, May, 1968, p. 32. ("The new dimension of electronic music is depth: the new music is polyphonic (not contrpuntal). Pop music offers the best examples. Electronic music shifts the emphasis from structure to process.")

[2]Edgard Varèse, Contemporary Composers on Contem-

His Poème Electronique is the musical part of a spectacle of light and sound, presented during the Brussels Exposition. Le Corbusier was the author of the visual part. It consisted of moving coloured lights, images projected on the walls of the pavilion, and music. The music was distributed by 425 loudspeakers; there were twenty amplifier combinations. It was recorded on a three track magnetic tape that could be varied in intensity and quality. The loudspeakers were mounted in groups and in what is called sound routes to achieve various effects such as that of music running around the pavilion, as well as coming from different directions. "For the first time," said Varese, "I heard my music literally projected into space."[1]

> We have actually three dimensions in music: horizontal, vertical and dynamic swelling or decreasing. I shall add a fourth, sound projection--that feeling that sound is leaving us with no hope of being reflected back, a feeling akin to that aroused by beams of light sent forth by a powerful searchlight--for the ear as for the eye, that sense of projection, of a journey into space.[2]

Varèse's music unfolds in geometric patterns reminiscent of the designs of Cubist painting.

Music, p. 205

[1] Contemporary Composers on Contemporary Music, p. 207

[2] ibid., p. 197

Stockhausen's Gruppen for three orchestras stems out of his preoccupation with the spatial dimension in music. "The spatial aspects of the music are functional. One finds oneself listening in the midst of several temporal-spatial manifestations which together create a new musical time-space."[1]

Another aspect of the visual arts exists in the idea of interchangeable elements. Inaugurated by Stockhausen in the No. 4 Klavierstuck XI pour piano (1957), in which the order of performance of a number of juxtaposed musical fragments is left to the performer, the genre is the musical equivalent of Calder's mobile plastic forms.[2]

Of course the analogies with music still continue to be drawn in painting, and probably will so continue. But one or two examples will show that the notions have by now a familiar ring. The case for abstraction has long ago been argued to its conclusion. Abraham Rattner recasts the old theme:

> In painting I find that the articulative force is colour. Colour is to painting what sound is to music. It is not limited by the colour we experience in the objective world, but the experiences of our livingness touch the keys and chords of our inner being and bring into play that

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[1]Machlis, p. 431.

[2]Rollo H. Myers, ed., Twentieth Century Music (Calder & Boyars, London: 1968), p. 40.

> wonderful colour world of our imagination.[1]
>
> It is the world of emotions that is expressed by an appropriate technique. The spectator is free to interpret, according to his sensations, in the same manner that he would react to a sonata....
>
> The painter had to find his own language in order to communicate his affective condition without having to have recourse to the representative outside world. By abstract art, he has brought about the perfect untity between the "condition" and the "work". In fact, I don't describe a condition, but I follow up a condition, and the work communicates this in the same manner that music might do.[2] --Gerard Schneider.
>
> My basic concern in painting is, I believe, rhythm.[3] --Mark Tobey.

The instances of composers who turn to painting, and painters who find music necessary to their particular are still common. They range from Gösta Nystroem, a Swedish composer who practised painting, and whose artistic outlook was influenced by Picasso and Braque, to Larry Poons, whose paintings have been heavily influenced by his musical training. Poons started out as a guitar player with a high school hillbilly band, and then studied at the New England Conservatory of Music. "His earliest paintings

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[1] Allen Leepa, The Challenge of Modern Art, (Peter Owen Ltd., 1949, 1957), p. 192.

[2] ibid. pp. 195-8

[3] ibid.

were hard-edged and geometric attempts to present Bach's counterpoint in visual terms."[1]

In the hundred years of modern art that have passed there were many different areas of contact between painting and music. Painters have tried to represent musical phenomena; composers have attempted to give musical impressions of particular paintings (e.g. Mussorgsky's Pictures at an Exhibition, composed in 1874 in memory of the painter and architect V. A. Hartmann to illustrate paintings and designs shown at the Hartmann Memorial Exhibition; Seven Studies on Themes of Paul Klee by the American, Gunther Schüller.[2]) The painter has appeared as a tragic figure in opera--Puccini's Tosca and Hindemith's Mathis der Maler,(whose theme was appropriate to the social struggles of the thirties.)

There is a visual aspect of music that requires mention--musical graphics. Gothic and Renaissance forms of musical notation presented a most attractive addition to the aural charms of the music. The visual has become important in musical manuscripts again. Electronic music scores suggest numerous visual possibilities. Musical graphic has become, in the words of György Ligeti, "a means, not of communication but of association."[3]

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[1] "Pools of Radiance", Time, November 8, 1968, p. 46

[2] Broadcast April 12, 3YC, 8 p.m.

[3] Stuckenschmidt, p. 228.

John Cage has produced some very colourful scores. His Aria for Cathy Berberian (1958) is notated in the form of multi-coloured curves that leave full play to the performer's imagination. "The supplanting of the ear by the eye in musical graphic illustrates a trend that can be observed in various other fields. According to the "psychovisualism" of Russell Atkins, the hierarchy of the senses is such that the ear is quite incapable of recognising, let alone creating artistic forms."[1]

Atkins draws a sharp line between music and composition, claiming that they are contradictions. So-called "musical composition" is a visual art. The ear may be able to distinguish frequencies but it cannot recognise height or depth, structural organization or geometric relations.[2] Furthermore, the terms "vertical" and "horizontal" harmony are visual propositions.

More and more, the graphics of music forced themselves upon his consciouness, Paul Klee said. His use of line shows the influence of musical graphics clearly.

"Stravinsky's scores are magnificent," declared C. F. Ramuz.

> He is above all (in all matters and in every sense of the word) a calligrapher...His writing desk

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[1] Stuckenschmidt, p. 229.

[2] ibid.

> resembled a surgeon's instrument case. Bottles of different coloured inks in their ordered hierarchy and each had a separate part to play in the ordering of his art. Nearby were india-rubbers of various kinds and shapes and all sorts of glittering steel implements: rulers, erasers, pen-knives and a roulette instrument for drawing staves invented by Stravinsky himself. One was reminded of the definition of St. Thomas: beauty is the splendour of order. All the large pages of the score were filled with writing with the help of the different coloured inks--blue, green, red, two kinds of black (ordinary and Chinese) each having its purpose, its meaning, its special use: one for the notes, another for the text, a third for the translation; one for the titles, another for the musical directions; meanwhile the bar lines were ruled and the mistakes carefully erased.[1]

.....

Today the relationship between painting and music appears to have reached an impasse. Musical analogy is no longer necessary to justify abstraction in painting: the visual arts are quite capable of proceeding independently now. Abstract painting, originally conceived by analogy with music, has become a vital and dynamic force in modern art. Its innovators have passed into death, and into history. The sense of artistic community which inspired in them a spirit of collaboration seems to have passed with them.

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[1]Eric Walter White, Stravinsky: A Critical Survey (John Lehmann, 1947), p. 63.

"Musicality" has been absorbed into the tradition of modern art: its sphere of influence has been world-wide.

Modern art has spanned a century. During the first fifty years, painting and music very quickly became necessary to each other, and evolved interdependently. A peak was reached just before the First World War. In their breakthrough to abstraction, the pioneers, Picabia, Kupka, Delaunay and Kandinsky brought to an exciting climax, the notion of an inner relationship between painting and music. Theirs was the outstanding achievement of the musical phase of modern painting.

Appendix.

NOTES ON "COLOUR MUSIC".

There have been a number of successful attempts at audio-visual synthesis in the arts--ballet, opera, drama, happenings, films: all of them employ a variety of proven formulae: all approximate to Wagner's conception of "a work of art embracing all the arts" (Gesamkunstwerk). The desire to find an underlying basis for all the arts gave rise to an art form which is one of the more intriguing results of the equation of painting and music: Colour Music, the art of light.

There has long existed a desire to see colours as specific visual equivalents of musical tones arranged in a related hierarchy. Since few of the postulated theories differentiated between colour as pigment and colour as light --two very different considerations--a great deal of confusion resulted. A number of highly arbitrary music-colour scales appeared which, did not, and could not, be universally applied. Agreement among the different systems was rare.

Sir Isaac Newton related the following prismatic colours and musical tones: C red; D orange; E yellow; F green; G blue; A indigo; and B violet.[1]

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[1]Peter Felix Ganz, "Critical Remarks of a Musician on Sound-Colour Relations", Palette 23 1966, p. 8.

> May not the harmony and discord of Colours arise from the proportions of the vibrations propagated through the fibres of the optick Nerves into the Brain; as the harmony and discord of sounds arises from the proportions of the vibrations of the air?[1]

Louis Bertrand Castel, (1688-1757), a French Jesuit priest and music theorist, constructed a Clavecin des couleurs with a colour scale corresponding to that of the diatonic scale. He considered the chromatic octave of twelve semitones a "circular system of sounds" and produced a matching circular system of colour shades: C blue; D flat/ C sharp blue-green; and then ascending, green, olive, yellow, apricot, orange, red, crimson, agate, violet, and indigo, to arrive at the next C again with blue.[2] "For want of knowing how to paint with the ears, people have presumed to sing with their eyes," growled Jean-Jacques Rousseau, (1712-78), "I have seen the famous harpsichord on which music may supposedly be made with colours."[3]

Alexander Wallace Rimington, (1854-1918), a professor of Fine Arts at the Royal College of Art, in 1893 completed a colour organ which produced varying degrees of luminosity, colour changes and colour combinations--either

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[1]Sir Isaac Newton, Opticks: A Treatise of Light (London: 1704), The Third Book of Opticks, p. 136, Query 14 (Facsimile Edition by Impression Anastaltique, Culture et Civilisation, Bruxelles, 1966).

[2]Ganz, ibid.

[3]Composers on Music, ed. Sam Morgenstern, p. 54.

used to accompany musical selections or to perform colour interplay by itself. He did not believe that actual sound-colour parallels of wave-lengths existed and readily admitted the arbitrariness of his selected pitch-colour scheme.[1]

Alexander Scriabin, (1872-1915), perceived inner relations among all the senses. He believed that sound, colour, smell, touch and motion were all closely related. His orchestral work Mysterium, (never completed), was to include a screen with changing colours, and perfumes were to have been released as an accompaniment to the music, His symphonic ,poem, Prométhée, an attempt to synchronize chorus, orchestra, piano, organ and many-coloured changing lights, would nothahave been possible without the parallel scientific and technological developments. The score of Prométhée provides for a clavier à lumière--a colour organ that was supposed to flash on a screen, colours synchronized with the music.

> This new instrument--shaped and played like a tone-less piano--would by means of a huge reflector cast the concert hall into the most gorgeous symphony of colours.[2]

Both Scriabin and Rimsky-Korsakov drew up charts of key-colour relationships.

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[1]Ganz, p. 9.

[2]Alfred J. Swan, Scriabin (London: John Lane, The Bodley Head, 1923), p 98

Key:	Rimsky-Korsakov:	Scriabin:
C major	white	red
G major	brownish-gold, bright	orange-rose
D major	yellow, sunny	yellow, brilliant
A major	rosy, clear	green
E major	blue, sapphire, sparkling	bluish-white
B major	sombre, dark, blue shot with steel	bluish-white
F sharp major	greyish-green	bright blue
D flat major	dusky, warm	violet
A flat major	greyish-violet	purple-violet
E flat major	dark, gloomy, bluish-grey	steel colour with a metallic lustre
B flat major		steel colour with a metallic lustre
F major	green	red.[1]

Rimsky-Korsakov and Scriabin concurred, surprisingly, more often than not. Rachmaninoff disagreed with their key-colour charts in conversation with them.[2]

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[1] Alan P. Merriam, The Anthropology of Music

[2] Composers on Music, ed. Sam Morgenstern, p. 373.

Kandinsky, who considered Scriabin one of the most gifted of the younger Russian composers, also invented a colour organ. Kandinsky compiled an experimental music-drama, Der gelbe Klang, in 1909. Thomas von Hartmann was to have composed music for this attempt to synthesize the arts. Der gelbe Klang was a mystery play of the kind that Scriabin had dreamed of.[1]

Arnold Schönberg's stage drama, Die glückliche Hand op. 18, in which the most detailed lighting and colour instructions are scored, employs colour effects intended to heighten dramatic effects and to promote psychological associations in the viewer. In one scene Schönberg calls for a crescendo in both sound and colour, from red through to brown, green and blue-grey to purple, red, orange, yellow, and finally, white.[2] With its exact co-ordination of colour and music, it is, as Robert Craft observes, among the "first operas of the age in which the application of electricity is actually composed."[3]

The English composer, Cyril Scott, (b. 1879), worked out a scientific analogy between the colour spectrum and vibrations of sound and proceeded to compose according to the analogy.

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[1]Der gelbe Klang was not prepared for production until 1956, a task undertaken by Jacques Polieri and Jean Barraque, the composer.

[2]Machlis, p. 350.

[3]Mitchell, p. 139.

In 1922 Sir Arthur Bliss completed A Colour Symphony for full symphony orchestra. Each movement is asigned a title colour: 1: Purple (andante maestoso ma con moto); 2: Red (vivace); 3: Blue (piu lento); 4: Green (moderato).

Edward MacDowell, (1861-1908), heard a particular colour for each key.

Colour as popularly applied to music is a metaphor.

> Tone as a primary sensation has nothing to do with colour as a primary sensation. A tone sensation in its phenomenolgical form is diametrically different from a colour sensation. At times they can arouse the same emotional reactions, linked together by associative processes. But as sensory impressions they admit of no comparison.[1]

Schönberg and Webern experimented with Klangfarben melodien. They gave the idea of sound-colour in relation to visual colour, formal synethesis.

The notion of some sort of mystical relationship between sound and colour persists to the present day. Olivier Messiaen, (b. 1908), writes:

> Colour: the sounds colour the durations because they are bound to colour by unseen ties. When I listen to music, and even when I read it, I have an inward vision of marvellous colours--colours

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[1] G. Revesz, Introduction to the Psychology of Music (London: Longmans, Green and Co., 1953), p. 123.

> which blend like combinations of notes, and which shift and revolve with the sounds. For example a certain series of chords may be red touched with blue--another will be milky white, decorated with orange and edged with gold.--another will be green, orange and violet in parallel stripes--another will be pale grey, with reflections of green and violet--yet another with be entirely violet or entirely red. There will also be complementary colours, 'simultaneous contrasts' by resonance, colours fading towards white, shaded by black, the chords and timbres of hot or cold colours. By means of a drug--Peyotl--extracted from a small Mexican cactus, it is possible to transform aural sensations into coloured visual sensations. Without going to such lengths, most people have this sixth sense--this awareness of correspondence between sound and colour.[1]

Such ideas recast the earlier theories of Scriabin, Kandinsky, Kubin, and Huysmans.

Thomas Wilfred, the founder of the Art Institute of Light in New York, never attempted to develop any analog of sound and colour. He promoted Lumia (Colour Music) as a new, independent and expressive art form from about 1920 on. His colour music is devoid of any aural effects of musical accompaniment. His light-producing instrument, the Clavilux, was played by an ingenious array of levers, switches, pulleys, and gliders.

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[1]From the programme notes accompanying the recording of Messiaen's Chronochromie, Music Today series, no. ASD639

Adrian Bertrand Klein also promoted colour music as an independent art form. He suggested that light and sound as well as other art forms, could, and should be used to create new, integrated, complex, "super art forms".

Audio-visual art forms are still in their infancy. Pierre Schaeffer and his Paris group are experimenting with sound-colour-light-motion-smell synthesis. Robert Ashley, Gordon Mumma and associates are presenting works in which electronic sounds and light effects surround the audience. these are taking place in Ann Arbor's Space Theater, michigan U.S.A.

Anna Lockwood describes her Glass Concert as a form of "live music concrete" using amplified sounds of glass, water, foil, and effects involving light, cine-film and epioscope."[1]

Robert Rauschenberg has assembled an electronic sculpture, Oracle, which consists of a series of five disconnected wagons of carefully arranged junk which he describes as a "collage out of sound." [2] The connecting links are auditory; four pieces tweet and woof, continuously tuning up and down the AM dial, through their own radio speakers.

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[1]From the programme notes accompanying a concert in the Ngaio Marsh Theatre, Christchurch, New Zealand, July 21 1967.

[2]"Bing-Bang Landscapes", Time, May 28, 1965, p. 38.

Many painters have turned to the film in order to express colours and forms in temporal sequences (e.g. Leger, Richter, Eggeling, the musicalists).

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