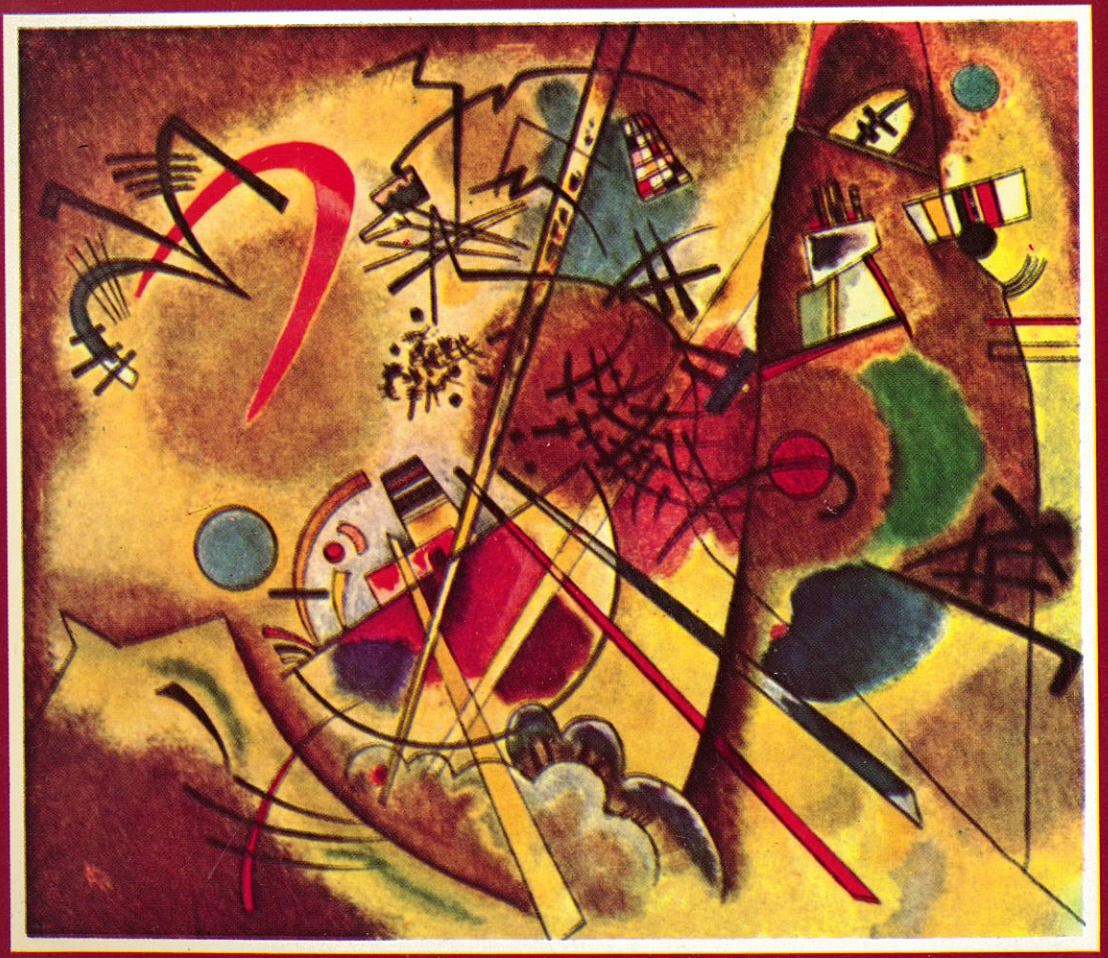
Wassily Kandinsky

POINT AND LINE TO PLANE



In addition to the beating of the kettle-drum and striking of the triangle, of which we have already spoken, points can be produced in music with all sorts of instruments—especially the percussion instruments. The piano, however, enables the creation of finished compositions exclusively by means of the combination and the sequence of tonal points.[1]

Strings and piano

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

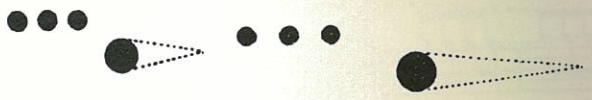
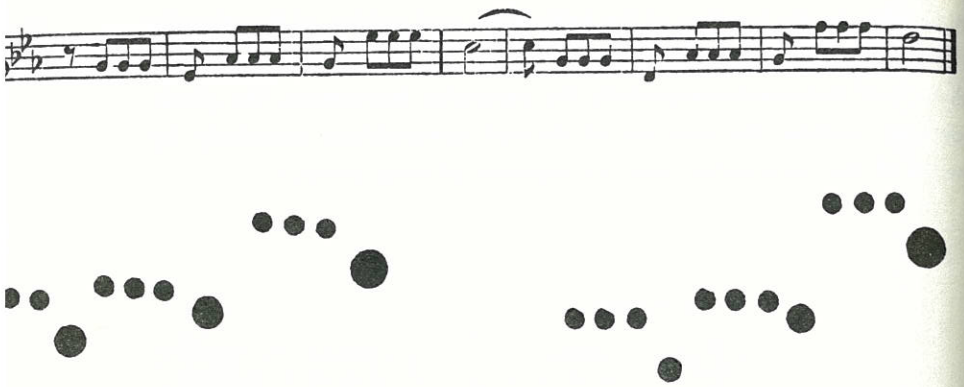


Fig. **11**

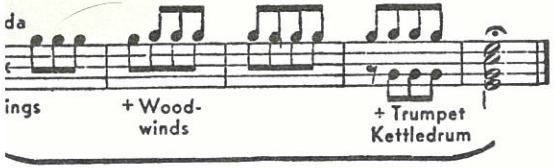
The above music translated into points.

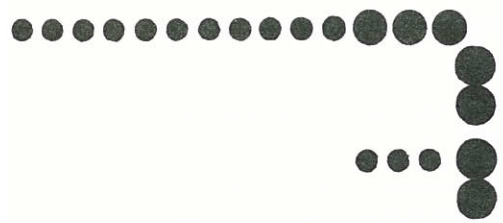
---

[1] It is clearly evident that certain musicians also have been more or less consciously attracted by the magnetic power of the point, which can be distinctly recognized through its inner tension as demonstrated by the so-called subconscious "hallucination" of Bruckner, whose meaning had been detected and described: "How could this (his interest in the effect of points after signatures or on doorplates) have been a derangement of his spirit, when it seems that it was no wandering mind which investigated these points—especially if one understands Bruckner's nature and the manner in which he searched for knowledge as indicated in his studies of the theory of music? It becomes apparent that psychological significance resides in the fact that he was attracted to the reclining proto-unit of all spatial expansion's origin. He sought everywhere for the ultimate inner points, to reach this final analysis out of which, in his opinion, originates the infinity of vast dimensions, impossible without its originating extension point." "Bruckner" by Dr. Ernst Kurth, vol. I, p. 110, footnote. Max Hesses Verlag, Berlin.

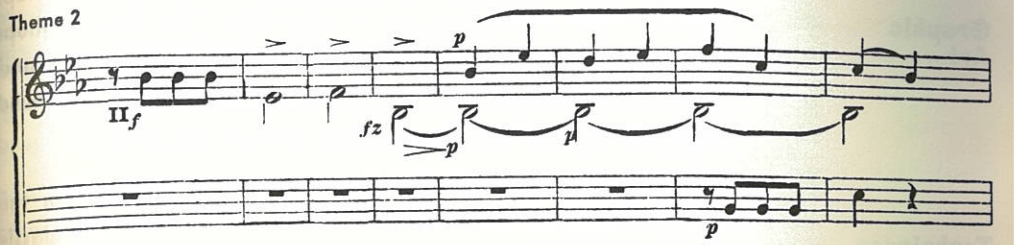


. 11
above music translated into points.





g. 11
ıe above music translated into points.



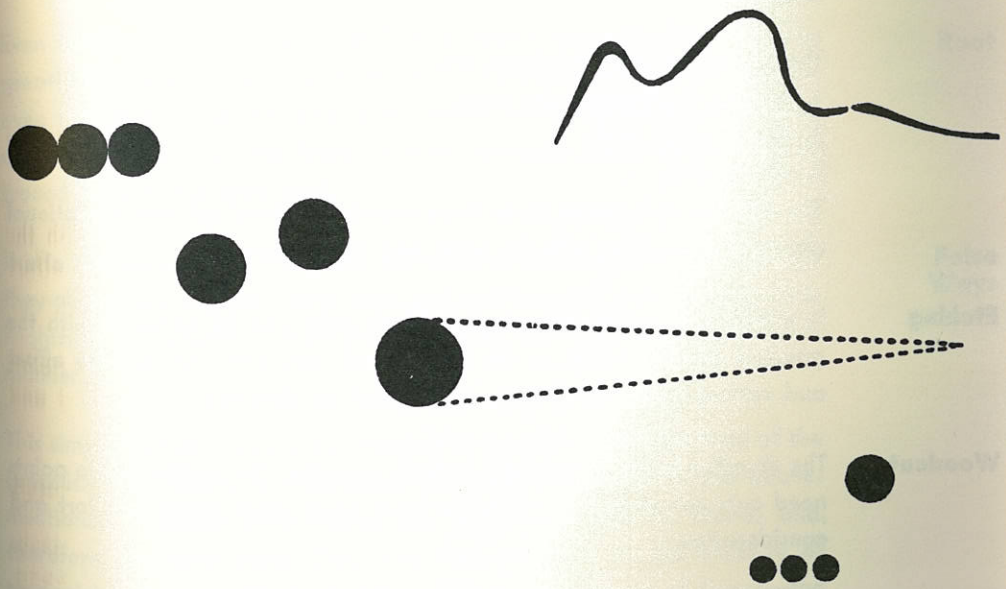


Fig. 11 [1]
Theme 2 translated into points.

[1] In making these translations, I received the valuable aid of Music Superintendent Franz v. Hoesslin and for this I extend to him my heartfelt gratitude.

raphic
rt

In that particular field of painting known as **graphic**, the point develops its autonomous powers with special clarity: the material tools offer to these powers many different possibilities in the way of diversity of form and size, which establishes the point in countless entities with different sound values.

echniques

Even here, this multiplicity and diversity are easily classified when the special characteristics of the graphic techniques are used in this classification.

The typical graphic techniques are:
1. etching, particularly dry-point,
2. the woodcut, and
3. lithography.

The differences between these three techniques stand out with exceptional clarity in connection with the point and its creation.

tching

In **etching**, naturally, the smallest black point can be obtained with the greatest of ease while, on the other hand, only with considerable effort and various tricks can a large white point be obtained.

Woodcut

The situation in the **woodcut** is entirely opposite. The smallest white points need only one stab. It is the large black point which demands effort and consideration.

.ithography

In **lithography** both roads are equally smooth and effort is eliminated.

Likewise, the possibilities of making corrections differ in these three techniques: in etching, strictly speaking, correction is impossible; in the woodcut it is restricted and, in lithography, it is unlimited.

Atmosphere

It should be evident from this comparison of the three techniques, that the lithographic process was bound to be the last discovered; in fact, since the discovery did not take place until "today," facility cannot be attained without effort. On the other hand, ease in creating and ease in correcting are characteristics which are particularly suited to the present day. The

present day is only a springboard to "tomorrow" and only in this role can it be accepted with innermost tranquility.

No natural difference can or should remain superficial—it must point to the profound depth, that is, to the inner life of things. Likewise, technical possibilities grow in just as functional and purposeful a manner as any other potentiality, whether it be in "material" life (spruce tree, lion, star, louse) or in the spiritual realm (art work, moral principle, scientific method, religious idea).

Root

Even though on the surface the individual appearances of plants differ so greatly from each other that their inner relationship remains obscured—even though these phenomena seem chaotic to the superficial eye—they can, nevertheless, on the basis of their common **inner necessity**, be traced back to the same root.

False Ways

It is in this manner that one learns the value of differences which, although they always are originally purposeful and well-founded, avenge themselves frightfully in monstrous abortions when they are handled in a frivolous manner.

This simple fact can readily be observed in the more restricted field of the graphics—the failure to understand the basic differences in the above-mentioned technical potentialities has repeatedly lead to useless and, therefore, repulsive works. They owe their existence to the inability of recognizing the inner life behind the external appearance of things—the soul, hardened like an empty nutshell, has lost its capacity to penetrate any longer the depths of things where the pulsebeat, beneath the outer husk, becomes audible.

The specialists of 19th Century graphics were not infrequently proud of their ability to make a woodcut resemble a pen drawing, or a lithograph look like an etching. Works of this sort can be designated only as testimonials of spiritual poverty. The cock's crowing, the door's creaking, the dog's barking, however cleverly imitated on a violin, can never be estimated as artistic accomplishments.

Means

Hand-in-hand with the **materials** and **tools** of these three techniques goes, naturally, the necessity of realizing the three different characteristics of the point.

Material

While paper can be used as material for these three different techniques, the relation of the particular tool in each case is fundamentally different. This accounts for the continued existence, side by side, down to the present day of these three techniques.

Tools and Origin of the Point

Of the various kinds of etching, **drypoint** is used by preference today because it harmonizes especially well with the present day atmosphere of haste, and because it possesses the incisive character of precision. The basic plane can here remain entirely white, and in this white the points and lines lie deeply and sharply embedded. The etching-needle works definitely and with the greatest determination and bores eagerly into the plate. The point is created first in the negative through a short, precise prick in the plate.

The needle is pointed metal—cold.
The plate is smooth copper—warm.

The colour is applied thickly on the entire plate and wiped off in such a manner that the small point remains lying simply and naturally in the lap of brightness.

The pressure of the press is powerful. The plate eats its way into the paper. The paper penetrates the smallest depressions and tears out the colour. It is an impassioned process which leads to the complete fusion of the colour with the paper.

Thus, the small black point—the pictorial proto-element—is here created.

Woodcut:
Tools: a plane made of metal—cold.
Plate: of wood (e.g., boxwood)—warm.

The point is created in such a way that the instrument does not touch it—the point is encircled—like a fortress—with a ditch, and great care is taken not to injure it. In order that the point may enter the world, it is necessary to do violence to its entire surroundings; to tear them out and destroy them.

The colour is rolled onto the surface in such a way that it covers the point and leaves the surrounding area free. The future print can already be clearly seen upon the block.

The pressure of the press is light—the paper must not make its way into the depressions, but must remain upon the surface. The small point does not sit in the paper, but on the paper. It remains for its inner forces to claw their way into the surface.

Lithography:
The plate: stone, clay of an indefinable yellow—warm.

The tools: pen, crayon, brush, any more or less pointed object with surfaces of contact of the most varied sizes. Lastly, a fine atomizer (spray technique). Great diversity, great flexibility.

The colour rests lightly and insecurely. Its union with the block is very loose and it can easily be removed by grinding—the stone returns immediately to its original chaste condition.

The point is there in a moment—with the speed of lightning, without effort and loss of time—only a brief, superficial contact.

The pressure of the press—fleeting. The paper touches impartially the entire block and reflects only the parts which have been fructified.

The point sits so lightly upon the paper that it would not be surprising if it were to fly off it.

This is the way the point sits:
in the etching—in the paper,
in the woodcut—in and on the paper,
in the lithograph—on the paper.

It is in this manner that the three graphic techniques differ from each other, and in this manner that they are mutually interwoven.

Thus, the point—remaining always a point—takes on different aspects and is, thereby, a changing expression.

These last remarks relate to the special question of **texture.**

The term "texture" signifies the manner in which the elements are externally combined with each other and with the basic plane. This mode of combination depends on three factors which may be classified schematically as follows:

1. according to the character of the given space which may be smooth, rough, flat, plastic, etc.,
2. according to the type of tool, whereby the one in common use today in painting—the brush of various types—may be supplanted by other tools, and
3. according to the manner of application: the colour may be laid on loosely, compactly, by stippling, by spraying, etc., depending upon its consistency—this accounts for the difference in binding media, pigments, etc.

Even in the very limited field of the point, attention should be given to texture possibilities (Figs. **12** and **13**). Despite the narrowly drawn confines of this smallest of elements, the different means of producing it are, nevertheless, of importance, since the sound of the point takes on each time a different colouration in accordance with the manner of its creation.

We have, therefore, to consider:

1. the character of the point as determined by the tool used to make it in combination with the nature of the surface receiving it (in this case, the type of plate),
2. the character of the point in the way of its union with the surface finally receiving it (in this case, the paper),
3. the character of the point as it depends upon the qualities of this definite surface itself (in this case, smooth, granular, striated, rough paper).

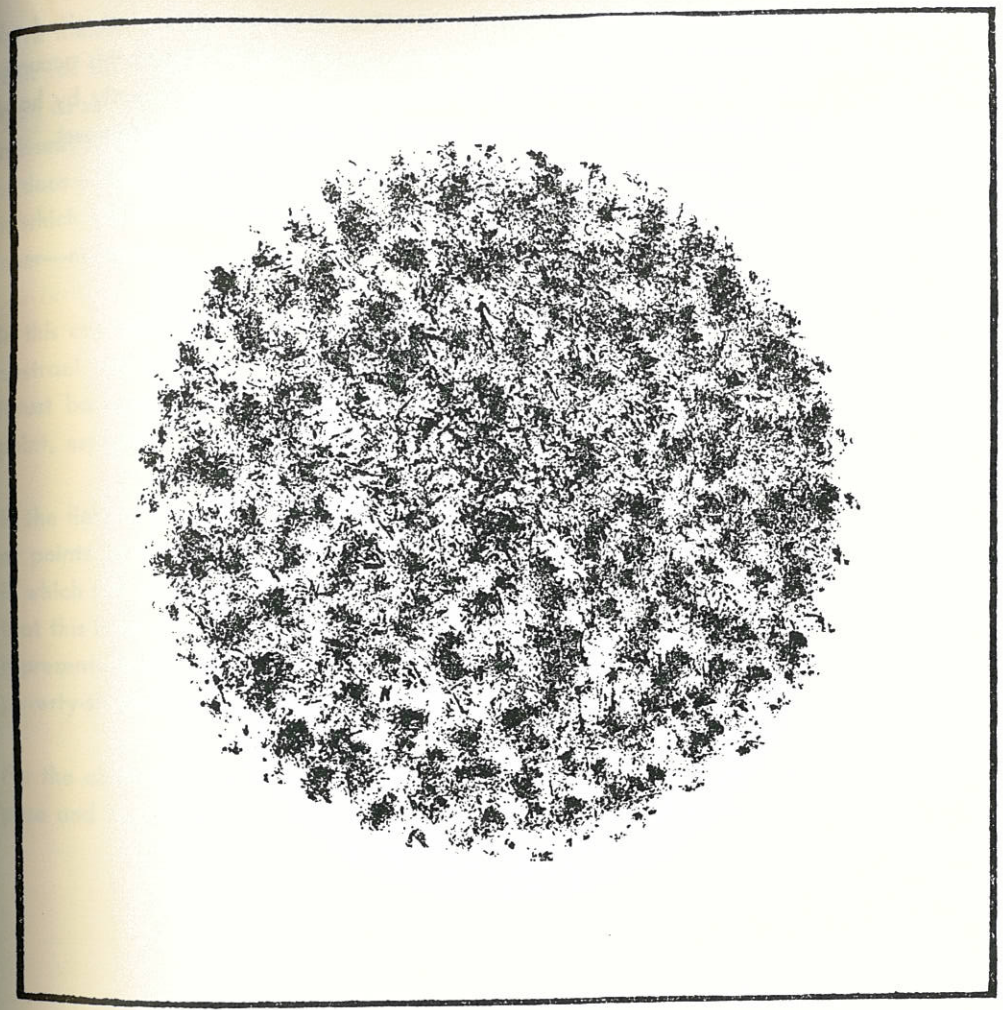


Fig. **12**
Concentric complex of points of free form.

When a piling-up of points is necessary, the three cases just cited will become still further complicated by the manner of producing this accumulation of points—whether this accumulation be created directly by hand or by more or less mechanical means (all sorts of spray techniques).

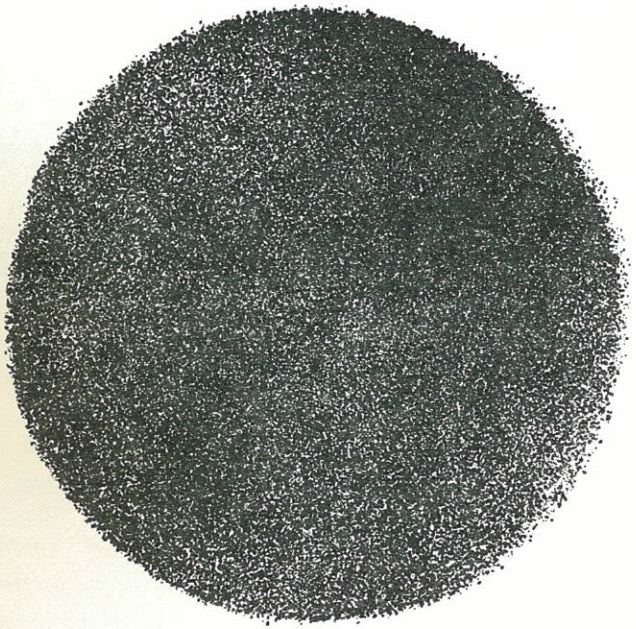


Fig. **13**
A large point formed out of small points (spray technique).

Naturally, all of these possibilities play a still greater role in painting;[1] the difference here lies in the individuality of the pictorial means which offers infinitely more possibilities for texture than the narrow field of the graphics.

[1] This question cannot be discussed more at length here.

Nevertheless, even in this restricted realm, considerations of texture retain their full significance. Texture is a means to an end and it must be looked upon as such and so used. In other words, texture must not become an end in itself; it must serve the idea residing in the composition (purpose), just as does every other element (means). Otherwise, an inner disharmony arises in which the means drown out the end. The external has taken over the inner—mannerism.

Abstract Art

In this case may be seen one of the differences between "objective" and abstract art. In the former, the sound of the element "in itself" is veiled, thrust back; when abstract, it attains its full, unveiled sound. The small point, especially, is able to give incontestable testimony of this.

In the field of the "objective" graphic, there are prints composed entirely of points (a famous "Head of Christ" can be mentioned as an example) in which the points are intended to produce the effect of lines. It is clear that this is an unjustifiable use of the point, since the latter, stifled by the representation and with its inner sound weakened, is condemned to a poverty-stricken half-life.[1]

For the abstract, a certain technique can, of course, serve a definite purpose and be necessary to the composition. Proofs of this are self-evident.

Force from Within

Everything which in very general terms has been said here about the point, has to do with the analysis of the self-contained, stationary point. Changes in its size bring with them corresponding changes in its character. In this

[1] A quite different case is the division of a surface into points which is dictated by technical necessity as, for example, in zincography, where the division of the surface into points by the screen is unavoidable—the point is not intended here to play an independent role and, to the extent that the technique permits this, it is deliberately repressed.

case, however, it grows out of itself; out of its own center; and only a relative diminuation of its concentric tension results.

rce from thout

There exists still another force which develops not within the point, but outside of it. This force hurls itself upon the point which is digging its way into the surface, tears it out and pushes it about the surface in one direction or another. The concentric tension of the point is thereby immediately destroyed and, as a result, it perishes and a new being arises out of it which leads a new, independent life in accordance with its own laws. This is the Line.

LINE

Some simple examples of rhythm:

Fig. **50.** Repetition of a straight line with alternation of weights.

Fig. **51.** Repetition of an angular line.

Fig. **52.** Opposed repetition of an angular line, plane formation.

Fig. **53.** Repetition of a curved line.

Fig. **54.** Opposed repetition of a curved line, repeated plane formation.

Fig. **55.** Central-ryhthmic repetition of a straight line.

Fig. **56.** Central-rhythmic repetition of a curved line.

Fig. **57.** Repetition of an accented curved line by means of an accompanying line.

Fig. **58.** Contrasting repetition of a curved line.

Fig. **50**

Fig. **51**

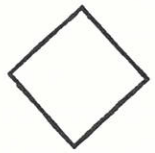


Fig. **52**

Fig. **53**

Fig. **54**

Fig. **55**

Fig. **56**

Fig. **57**

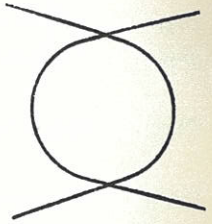


Fig. **58**

Repetition

The simplest case is the exact **repetition** of a straight line at equal intervals—the primitive ryhthm (Fig. **59**),
or in uniformly increasing intervals (Fig. **60**),
or in unequal intervals (Fig. **61**).

Fig. **59**

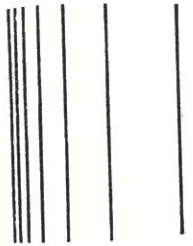


Fig. **60**

Fig. **61**

The first kind presents a repetition which has, primarily, **quantitative reinforcement** as its purpose as, for example, in music where the sound of one violin is reinforced by many violins.

In the second kind, an accompaniment of the **qualitative** enters along with the quantitative reinforcement which, in music, appears about like a

repetition of the same measures after a somewhat long interruption or, in the case of repetitions in "piano," the movement is qualitatively modified.[1]

The third kind, in which a more complex rhythm is used, is the most intricate.

Considerably more complicated combinations are possible in the case of angular lines and, especially, in that of curved lines.

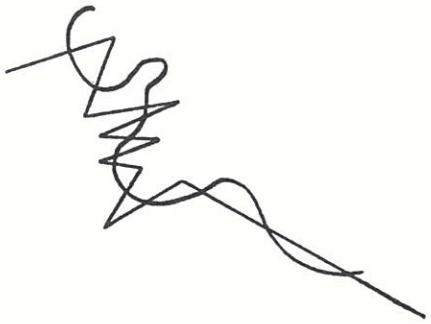


Fig. **62**
Contrasting combination of a curved line with an angular line. The characteristics of both acquire a strengthened sound.

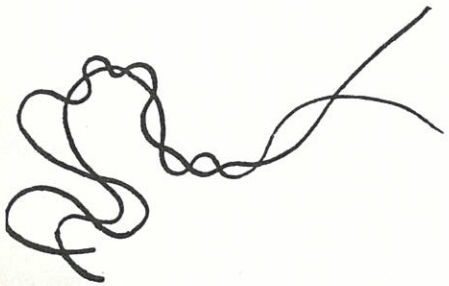


Fig. **63**
Curved lines running along with each other.

1 Repetition by other instruments of the same pitch must be viewed as a coloured-qualitative one.

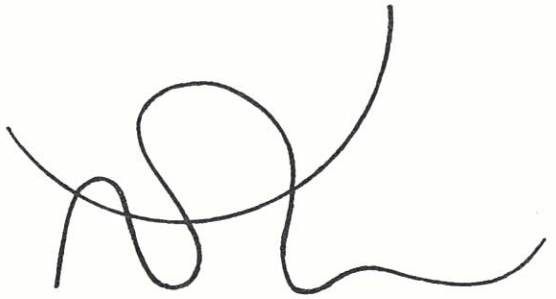


Fig. **64**
Running apart.

Quantitative and qualitative intensifications are present in both instances (Figs. **63** and **64**); nevertheless, they carry within them something soft and velvet-like and due to this, the lyric oversounds the dramatic. In the case of an opposite arrangement of lines, the contrast cannot attain its full sound.

Such really independent complexes can, of course, be subordinated to still greater ones, and these greater ones, in turn, form only a part of the total composition—in about the same way that our solar system forms only a part of the cosmic whole.

The universal harmony of a **composition** can, therefore, consist of a number of complexes rising to the highest point of contrast. These contrasts can even be of an inharmonious character, and still their proper use will not have a negative effect on the total harmony but, rather, a positive one, and will raise the work of art to a thing of the greatest harmony.

Time

The element of time, in general, is discernable in the line to a much greater extent than it was in the case of the point: length is a concept of time. On the other hand, the time required to follow a straight line is different from that required for a curved one, even though the lengths are the same; the more animated the curved line becomes, the longer is the span of time it represents. Thus, the possibilities of using line as a time element are manifold. The application of time has a different inner colouration in horizontal and vertical lines, even if of equal lengths, and perhaps it is in reality a matter of different lengths which, at any rate, would be psychologically explainable. The time element in a purely linear composition must not, therefore, be overlooked and in the theory of composition it must be subjected to an exact examination.

Other Arts

As with the point, the line can be used in forms of art expression other than painting. Its nature finds a more or less precise translation in the means of other arts.

Music

What a **musical line** is, is well known (see Fig. **11**).[1] Most musical instruments are of a linear character. The pitch of the various instruments corresponds to the width of the line: a very fine line represents the sound produced by the violin, flute, piccolo; a somewhat thicker line represents the tone of the viola, clarinet; and the lines become more broad via the deep-toned instruments, finally culminating in the broadest line representing the deepest tones produced by the bass-viol or the tuba.

Aside from its width, the line is produced in its colour variations by the diversified chromatic character of different instruments.

The organ is quite as typical a "linear" instrument as the piano is a "point" instrument.

[1] The line grows organically out of points.

It can be asserted that in music the line supplies the greatest means of expression. It manifests itself here in time and space just as it does in painting.[1] How time and space are related to each other in the two forms of art is a question by itself which, with its distinctions, has led to an exaggerated scrupulousness and, thereby, the concepts of time-space or space-time have been differentiated far too much.

The degrees of intensity from pianissimo to fortissimo can be expressed in an increasing or decreasing sharpness of the line, that is, in its degree of brilliance. The pressure of the hand on the bow corresponds exactly to the pressure of the hand on the pencil.

It is particularly interesting and significant that the graphic musical representation in common use today—musical notation—is nothing other than various combinations of point and line. The time is recognizable therein only by means of the colour of the point (white and black only, which consequently leads to the restriction of the means) and the number of pennant stripes (lines). The pitch is likewise measured in lines, and five horizontals form the basis of this. The unqualified brevity and the simplicity of the means of translation, which in clear language convey the most complex sound phenomena to the experienced eye (indirectly to the ear) are instructive. Both of these characteristics are very alluring for the other forms of art and it is understandable that painting or the dance should be in search of its own "notes." There is, however, only one way to arrive finally at their own graphic expression—analytic separation into fundamental elements.[2]

[1] In measuring tonal pitch in physics, special apparatus is used which projects the vibrating tone mechanically on a surface and which thereby gives the musical tone a precise graphic form. Similar things are also done with colour.
In many important cases, the science of art already makes use of exact graphic translations as material for the synthetic method.

[2] The relationships of the pictorial means to the means of other art expressions and, finally, to the phenomena of other "worlds," can be indicated only very superficially here. "Translations," especially, and their possibilities—in general, the transcription of various phenomena into their respective linear ("graphic") and colour ("pictorial") forms—require a thorough study of linear and colour expression. There is no question that, in principle, every phenomenon of every world admits of such expression—the expression of its inner nature—regardless of whether it be Raphael, J. S. Bach, a storm,