LINE

Text abridged and adapted from *Point and Line to Plane* by Wassily Kandinsky (1926)

Point and line

While the point is a static primary element in art, the line is a dynamic secondary element. The line is the result of a force moving the point in any direction. The types of lines that result depend on the number of forces and their combination.

First type of lines: Straight lines

I.A. Straight line: When a force moves a point in any unchanged direction, the resulting line is straight. The straight line represents the most concise form of the potentiality for endless movement. There are four types of straight lines: horizontal, vertical, diagonal and free.

I.A.1. Horizontal line: This is the simplest form of the straight line. In the human imagination, this corresponds to the line or the plane on which the human being stands or moves. The horizontal line is a cold base. Coldness and flatness are the basic inner sounds[1] of this line. This line is the most concise form of the potentiality for endless **cold** movement.

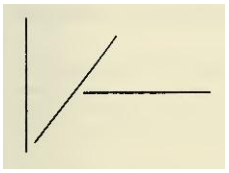

Fig. 1: Basic types of geometric straight lines.

I.A.2. Vertical line: This line stands at right angles to the horizontal line. There is no longer flatness, but height, and there is no longer coldness, but warmth. The vertical line is the most concise form of the potentiality for endless **warm** movement.

I.A.3. Diagonal[2] line: This line diverges from both the horizontal line and the vertical line at the same angle, and therefore, it has the same inclination to both of them. Because of this, its inner sound combines coldness and warmth. The diagonal line is the most concise form of the potentiality for endless **cold-warm** movement (Figs. 1 and 2).

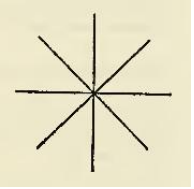

Fig. 2: Diagram of basic types of lines.

Temperature of straight lines: All the other straight lines are only deviations from the diagonal line. The inner sounds of those lines are determined by their tendency **to coldness or to warmth** (Fig. 3).

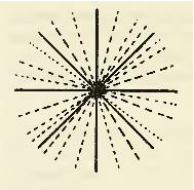

Fig. 3: Diagram of basic types of lines.

Plane formation: The star can become ever denser and denser so that the intersections form a more compact centre. In this centre a point develops and seems to grow. The lines move into a new form: a plane in the clear shape of a circle (Figs. 4 and 5). Thus, the line has a special characteristic —its power to create a plane.

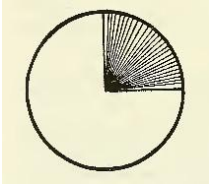

Fig. 4: Condensation.

Fig. 5: Circle as a result of condensation.

[1] With "inner sounds," Kandinsky refers to inner characteristics (*Point and Line to Plane*, p. 83).
[2] Pronunciation: daɪˈægənəl.

I.A.4. Free straight lines: This name refers to all the other diagonal-like lines that deviate from the basic diagonal mentioned in **I.A.3**. As regards temperature, these lines can never have the balance between warmth and coldness that the basic diagonal has, so they are unbalanced lines.

They can lie on a given plane with a common centre (Fig. 6) or outside the centre (Fig. 7). The former are called **centric free straight lines** and the latter are called **acentric free straight lines**.

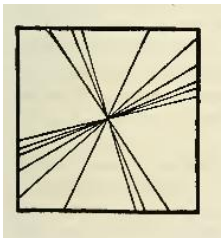

Fig. 6: Centric free straight lines.

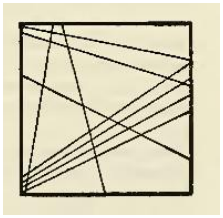

Fig. 7: Acentric free straight lines.

Colour and straight lines

Black and white: In the book *Concerning the Spiritual in Art* (1912), Kandinsky calls black the symbol of death and white the symbol of birth. Thus, the same can be said of the horizontal line and the vertical line, since the former is lying and the latter is standing. Black and white are silent colours, and so are these two basic lines. If we examine black and white from the standpoint of temperature, we find white more apt to be **warm** than black, and black is unquestionably **cold**. It is not without reason that the horizontal scale of colours runs from white to black (Fig. 8), and there is a gradual, natural sliding-downward from above to below (Fig. 9). In addition, in the case of white and black, the elements of height and depth can be noted as coinciding with vertical and horizontal.

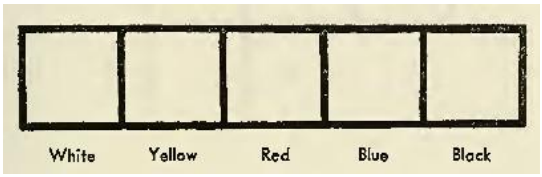

Fig. 8: Horizontal scale of colours.

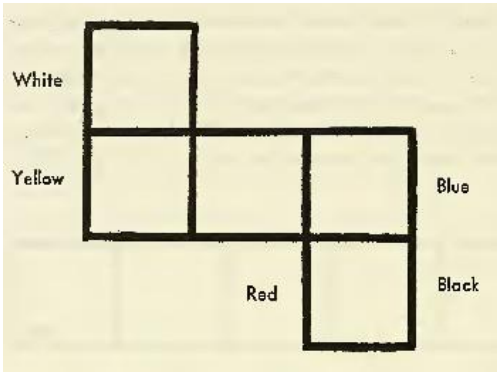

Fig. 9: Graphic representation of the descent .

Yellow (or white) and blue (or black): These colours carry within them different tensions of advancing and retreating. The purely schematic straight lines (horizontals, verticals and diagonals, but especially the first two) develop their tensions on the plane and show no inclination to leave it. In the case of free straight lines and, above all, the acentric ones, we observe a loose relationship to the plane. They are less completely fused with the plane and seem to pierce it occasionally. So they have the tensions of advancing and retreating, just as yellow and blue.

Red (or grey, or green): The diagonal line is related to red. This colour is distinguished from yellow and blue by its characteristic of lying firmly on the plane, and from black and white by an intensive inner movement —a tension within it. The diagonal is different from free straight lines in that it lies firmly on the plane, and it is different from horizontals and verticals in that it has a greater inner tension.

Sub-type of straight lines: Angular lines

I.B. Angular lines: Since angular lines are composed of straight lines, they belong under heading I and are placed in the second class under the heading B. Angular lines originate from the pressure of two forces in the manner shown in Fig. 10.

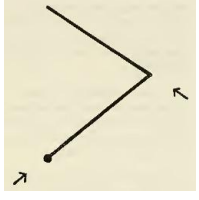

Fig. 10: Forces on angular lines.

I.B.1. Simple angular lines: The simplest forms of angular lines consist of two parts. There is an important difference between straight lines and angular lines: the angular line is in much closer touch with the plane, and it already carries something plane-like within it. The plane is in the process of creation, and the angular line becomes a bridge. The differences between the countless angular lines depend entirely on the sizes of the angles. There are two categories: typical and atypical angular lines.

a) Typical angular lines with acute angles: 45°

b) Typical angular lines with right angles: 90°

c) Typical angular lines with obtuse angles: 135°

d) Atypical angular lines with free angles: The remainder acute or obtuse angles that deviate from the typical category in the number of their degrees.

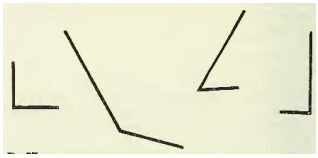

Fig. 11: Changes in the lengths of the individual sections.

Sounds and angular lines: There are three inner sounds in angular lines:

1. Sound of straight lines with changes in the lengths of the individual sections (Fig. 11).
2. Sound of the inclination to a more or less acute tension (Fig. 12).
3. Sound of the inclination to a smaller or greater conquest of the plane (Fig. 13).

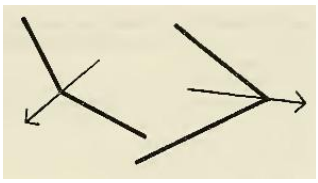

Fig. 12: Inclination to a more or less acute tension.

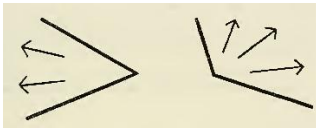

Fig. 13: Inclination to a smaller or greater conquest of the plane.

These three sounds can create a triple sound. They can also be used singly or in pairs, and this depends on the construction as a whole. All three sounds cannot be entirely eliminated, but one or the other can out-sound the rest to such an extent that they can scarcely be heard.

Temperature and angular lines: The most objective of the three typical angles is the right angle, which is also the **coldest**. It divides the square plane into exactly four parts. The acute angle is the tensest as well as the **warmest**. It cuts the plane into exactly eight parts. Increasing the right angle leads to the weakening of the forward tension and the desire for the conquest of the plane grows in proportion. But this greed is restrained because the obtuse angle is not capable of dividing the plane exactly: it goes into it twice and leaves a portion of 90° unconquered.

Summary of characteristics:

1. Right angle: cold and controlled.
2. Acute angle: sharp and highly active.
3. Obtuse angle: clumsy, weak and passive.

Colour and angular lines

Four right angles form a square. The cold-warm of the square and its definite plane-like nature immediately become signposts pointing to **red**, which represents a midway point between yellow and blue and has cold-warm characteristics. Thus, the **right angle** is placed on a parallel with **red**.

Under class d) of atypical angular lines, it is necessary to emphasize a special angle which lies between the right and acute angles —an angle of 60°. When the opening of two such angles

are brought together, they produce an equilateral triangle —three sharp, active angles— and they become the signpost to yellow. Thus, the **acute angle** has a **yellow** colour within.

The obtuse angle increasingly loses its aggression, its piercing quality, its warmth, and it is, thus, distantly related to a line without angles which constitutes the third primary, typical form of the plane —the circle. The passiveness in the **obtuse angle**, the almost missing forward tension, gives this angle a light **blue** tone.

I.B.2. Complex angular lines: The simplest forms of angular lines can become complex when other lines join the two original ones. The schematic type of these lines of many angles is composed of several segments of equal length which stand at right angles to each other. Accordingly, the endless series of many-angled lines becomes modified in two directions:

1. through combinations of acute, right, obtuse and free angles, and
2. through various lengths of the segments.

Thus, a **many-angled line** can be composed of the most diverse parts —from the simpler to the ever more complex. For example, the sum of obtuse angles can have equal or unequal segments, can alternate with acute and right angles, and can have equal or unequal segments, etc. (Fig. 14).

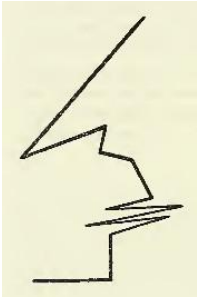

Fig. 14: Free many-angled lines.

These lines are also called **zigzag lines** and when they have equal segments, they form an animated straight line. When acute-angled in form, they suggest height and, thus, the vertical; when obtuse-angled in form, they tend toward the horizontal.

If, particularly in the case of the formation of the obtuse angle, a force is regularly augmented and the angle increases in size, this form tends towards the plane and, especially, towards the circle. The relationship of the obtuse-angle line, the curved line and the circle is, therefore, not only of an external nature, but also of an inner nature. The passivity of the obtuse angle and its unaggressive attitude toward its surroundings causes it to cave in more and more until it ends in the profoundest self-absorption of the circle.

Second type of lines: Curved lines

II. Curved lines: When two forces act on the point in such a way that one force continually, but always to the same degree, exceeds the other in pressure, a curved line is created.

II.A. Simple curved lines: This is the basic form of curved lines. It is really a straight line which has been brought out of its course by constant sideward pressure: the greater the pressure, the farther the diversion from the straight line. When the outward tension becomes too great, the curved line has the tendency to close itself.

The inner difference between the curved line and the straight line consists in the number and kind of tensions. The straight line has two distinct primitive tensions, which play an unimportant role in the curved line. The chief tension in the curved line is the arc, which is a third tension opposing and out-sounding the other two (Fig. 15).

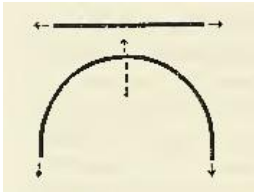

Fig. 15: Tensions of straight and curved lines.

While the piercing quality of the angle disappears, there is still greater force confined here. Even though it is less aggressive, this force has greater endurance concealed within it. The angle has a thoughtlessly youthful energy, while the arc has a mature energy, rightfully self-conscious.

This maturity and the elastic full sound of the curve line make a contrast with the straight line. The origin of the curved line and its character that develops from this origin, i.e. the complete absence of the straight line, show that the straight line and the curved line represent the primary contrasting pairs of lines (Fig. 16). The angular line must, therefore, be an intermediate element. These three types of lines can be seen to represent birth, youth and maturity.

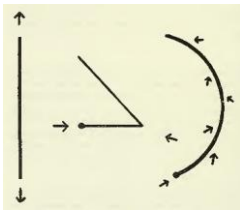

Fig. 16: Contrasts in lines.

Planes and lines

Whereas the straight line is a complete negation of the plane, the curved line carries within it a **seed of the plane**. If the two forces, with the conditions unchanged, roll the point ever farther, the developing curve will sooner or later arrive again at its starting point. Thus, the circle is created which is the most unstable and, at the same time, the most stable of planes (Fig. 17). The spiral is a form diverging in a regular manner from the circle (Fig. 18): the force acting from within exceeds the outer force in a uniform measure. The spiral is, therefore, a circle going off its track in a uniform manner.

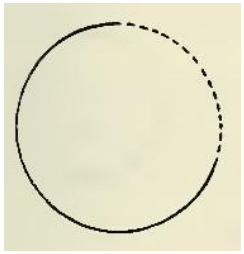

Fig. 17: Developing circle.

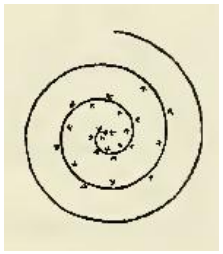

Fig. 18: Developing spiral.

In the final analysis, even the straight line with its other characteristics carries within it the desire (even though deeply hidden) to give birth to a plane, i.e. to transform itself into a more compact, more self-contained thing. The straight line is capable of doing this. But in contrast to the curved line which can create a plane with two forces, it has need of three impulses in plane creation. In the case of this new plane, beginning and end cannot completely disappear; instead, they are observable at three points.

On the one hand, the circle has a complete absence of straight and angular lines, and on the other hand, the triangle has three straight lines with three angles. Therefore, these are the two primary planes which stand in the greatest contrast to each other (Fig. 19).

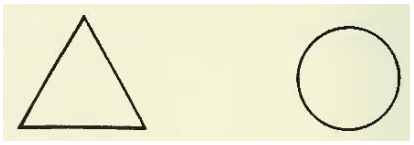

Fig. 19: The primary contrasting pair of planes.

Here we can establish certain relationships between those three parts of the pictorial elements which actually merge with each other, but which are theoretically separable: line, plane and colour. These are the three primary contrasting pairs of elements.

First pair: line	**Second pair: plane**	**Third pair: colour**
Straight line	triangle	yellow
Curved line	circle	blue

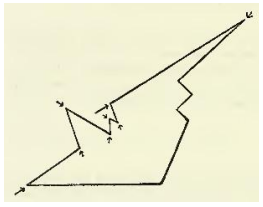

Fig. 20: Plane with angular lines.

The more alternating forces there are acting on the point, the more diverse their directions, and the more different the individual segments of an angular line are in length, the more complex the planes created will be. The variations are inexhaustible (Fig. 20).

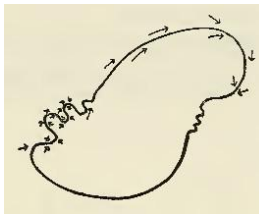

Fig. 21: Plane with curved lines.

This is mentioned here to aid in the clarification of the differences between the angular line and the curve. The likewise inexhaustible variations in the planes which owe their origin to the curve never lose a certain —even though distant— relationship with the circle, since they carry circle tensions within them (Fig. 21).

II.B. Complex curved lines or wave-like lines: A complex curved line or wave-like line can consist of the following:

1. geometric parts of a circle
2. free parts
3. various combinations of these

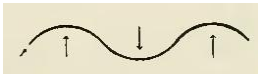

Fig. 22: Geometric wave-like curve.

These three types cover all the forms of the curve. Some examples will confirm this rule.

Geometric wave-like curve: Equal radios and uniform alternation of positive and negative pressure; horizontal course with alternating tensions and release (Fig. 22).

Free wave-like curve: Displacement of the above lines with the same horizontal extension: (1) the geometric character disappears; (2) positive and negative pressure with irregular alternations, with the positive pressure getting stronger than the negative pressure (Fig. 23).

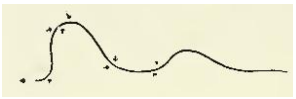

Fig. 23: Free wave-like curve.

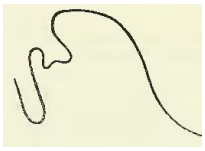

Fig. 24: Free wave-like curve.

Free wave-like curve: Displacement increased. Especially temperamental struggle between the two forces. The positive pressure pushes to a very great height (Fig. 24).

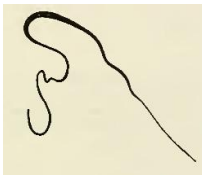

Fig. 25: Free wave-like curve.

Free wave-like curve: Variation of Fig. 24: (1) the high point directed toward the left, giving way in the face of the energetic attack of the negative pressure; (2) stress on the height through the broadening of the line — accentuation (Fig. 25).

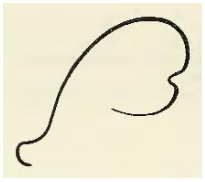

Fig. 26: Free wave-like curve.

Free wave-like curve: After the initial ascent toward the left, immediate, definite tension on a large scale upwards and to the right. Relaxing to circular from toward the left. Four waves are subordinated to one direction, from lower left to upper right (Fig. 26).

Fig. 27: Geometric wave-like curve.

Geometric wave-like curve: Contrasted to the geometric wave-like line in Fig. 22, pure ascent with modest diversions to the right and left. The sudden weakening of the wave leads to increased vertical tension. Radius from bottom to top: 4, 4, 4, 2, 1 (Fig. 27).

In the examples given, two different kinds of conditions produce the result:

1. the combination of the active and passive pressures
2. the contribution of the sound of direction

Associated with these two sound factors, two more can be included

3. the emphasis or accentuation in the line itself
4. the outer edges of the line which are formed partly by the accentuation.

Fig. 28: Geometric curve in ascent.

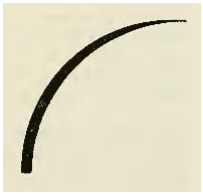

Fig. 29: Geometric curve in ascent with emphasis.

Emphasis or accentuation: This is a gradual, or a spontaneous, increase or decrease in strength, as can be seen in the examples of Figs. 28, 29 and 30. In Fig. 28, there is a simple geometric curve in ascent. In Fig. 29, there is the same geometric curve, but with uniformly decreasing emphasis which heightens the tension of ascent. In Fig. 30, we can see spontaneous accentuations of a free curved line.

Fig. 30: Spontaneous accentuation of a free curved line.

Outer edges of a line: As mentioned above, these are partly formed by the accentuation. In these cases, both edges of the line are to be considered as independent outer lines, a fact that has more theoretical than practical value. The edges of a line can be smooth, jagged, torn, rounded, etc. In the imagination these attributes create certain sensations of touch. Because of this, the outer borders of a line, from a purely practical point of view, should not be underestimated. With the line, there are innumerable combination possibilities in the transference to touch sensations. For example, smooth edges of a jagged line; jagged edges of a smooth, rounded line; torn edges of a jagged line; torn edges of a rounded line; etc. All of these characteristics an be used in the three types of lines —straight, angular and curved— and each of the two sides can have a special treatment.

Line and plane

The spreading out, especially in the case of a short, straight line, bears a relation to the growing point. Just as with the point, the question "When does the line as such die out, and at what moment is a plane born?" remains without a definite answer. The boundaries are indefinite and mobile. Everything here depends on proportions, as was the case with the point.

The "approaching-of-the-boundary" is a potent source of expression, a powerful means to ends in composition. In cases of acute dryness of the main elements in a composition, this means produces among these elements a certain vibration and causes a definite loosening-up of the stiff atmosphere of the whole and can, when used to an exaggerated extent, lead to almost repulsive over-niceties. At all events, one is here still completely dependent on feelings.

A generally accepted distinction between line and plane is, for the present, impossible—a fact which is perhaps bound up with the still little advanced state of painting.

Third type of lines: Combined lines

III. Combined lines: The third, and last, basic type of line is the result of the combination of the first two kinds: straight and curved lines. Consequently, it must be called the **combined line**. The nature of its individual segments determines its particular character:

1. It is a **geometric combined line** if the parts brought together are exclusively geometric.
2. It is a **mixed combined line** if free parts are associated with geometric lines.
3. It is a **free combined line** if it is composed entirely of free lines.

Complexes of lines (composition)

Until now, individual lines were classified and tested for their characteristics. The different ways of using several lines and the nature of their reciprocal effect, the subordination of individual lines to a group of lines or to a **complex of lines** is a question of **composition** and passes beyond the limits of this text. In spite of this, a few more characteristic examples are necessary to the extent that the nature of the individual line can be illuminated by these

examples. Some combinations will be very briefly shown here solely as a suggestion of the way to more complex structures.

Some simple examples of rhythm

Fig. 30: Repetition of a straight line with alternation of weights.

Fig. 31: Repetition of an angular line.

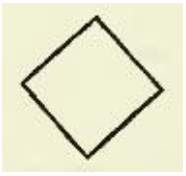

Fig. 32: Opposed repetition of an angular line, plane formation.

Fig. 33: Repetition of a curved line.

Fig. 34: Opposed repetition of a curved line, repeated plane formation.

Fig. 35: Central-rhythmic repetition of a straight line.

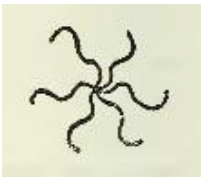

Fig. 36: Central-rhythmic repetition of a curved line.

Fig. 37: Repetition of an accented curved line by means of an accompanying line.

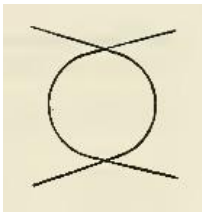

Fig. 38: Contrasting repetition of a curved line.

Repetition

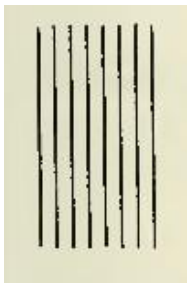

Fig. 39: Repetition of a straight line at equal intervals.

Fig. 40: Repetition of a straight line at uniformly increasing intervals.

The simplest case is the exact **repetition** of a straight line at equal intervals —the primitive rhythm (Fig. 39), or in uniformly increasing intervals (Fig. 40), or in unequal intervals (Fig. 41).

The first kind (Fig. 39) represents a repetition which has, primarily, **quantitative reinforcement** as its purpose; for example, in music where the sound of one violin is reinforced by many violins.

In the second kind (Fig. 40), an accompaniment of the **qualitative reinforcement** enters along with the quantitative reinforcement; for example, in music, this appears as a repetition of the same measures after a somewhat long interruption or in the case of repetition in "piano," the movement is qualitatively modified.

Fig. 41: Repetition of a straight line at unequal intervals.

In the third kind (Fig. 41), a more complex rhythm is used. This is the most intricate.

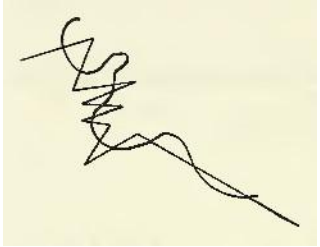

Fig. 42: Contrasting combination of a curved line with an angular line.

Considerable more complicated combinations are possible with angular lines and, especially, with curved lines. In Fig. 42, there is a contrasting combination of a curved line with an angular line. The characteristics of both acquire a strengthened sound.

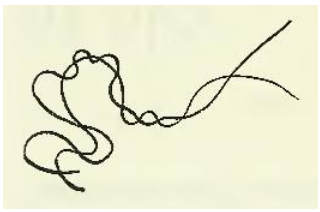

Fig. 43: Curved lines running along with each other.

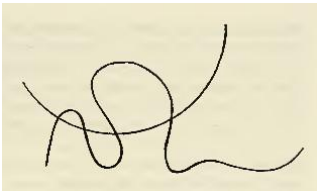

Fig. 44: Curved lines running apart.

Quantitative and qualitative intensifications are present in both instances of Figs. 43 and 44; nevertheless, they carry within them something soft and velvet-like and due to this, the lyric surpasses the dramatic. In the case of an opposite arrangement of lines, the contrast cannot attain its full sound.

Composition

Such really independent complexes can, of course, be subordinated to still greater ones, and these greater ones can, in turn, form only a part of the total composition. 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 they will raise the work of art to the greatest harmony.

Time

The element of time, in general, is discernable in the line since 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 they are of equal lengths. The time element in a purely linear composition must not, therefore, be overlooked.