Johannes Itten

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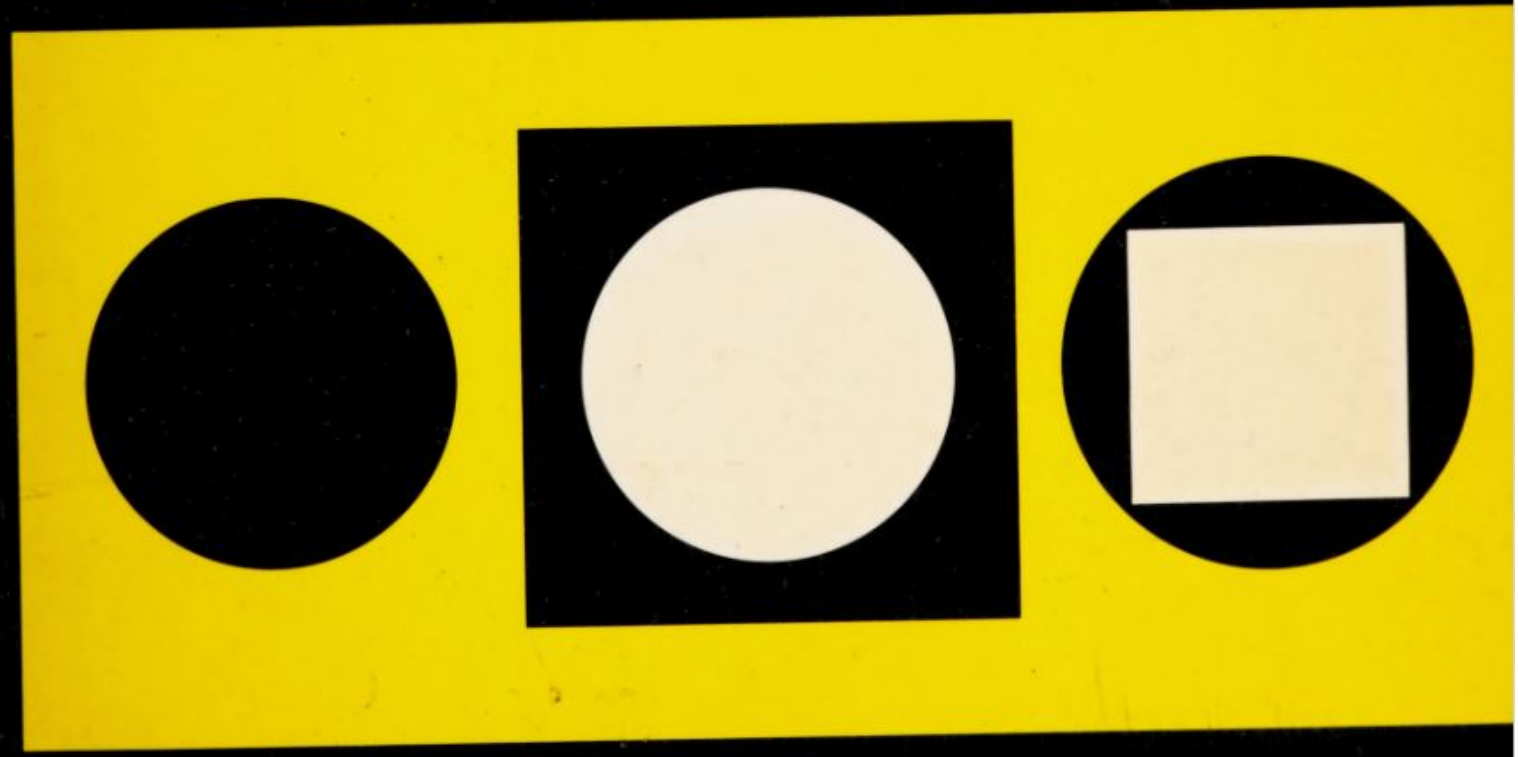
DESIGN AND FORM

Revised Edition

The Basic Course at the Bauhaus and later



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The Basic Course at the Bauhaus and Later

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Preface

Since the publication, in 1963, of this book's first edition entitled 'Mein Vorkurs am Bauhaus. Gestaltungs- und Formenlehre' (My Foundation Course at the Bauhaus. Design and Form) I was fortunate indeed to recover a very large number of originals executed by students of Johannes Itten. At the time only used projection slides were available for the reproduction of the majority of the illustrations. The originals I was able to trace since made a vastly improved and in some cases even colored presentation as well as the correction of authors' names and the year of execution of their work possible; unfortunately, however, a few gaps still remain.

In the exhibition 'Johannes Itten – His Teaching, Foundation of Education in Art', which has aroused the greatest interest in many European centers since the spring of 1973 I was fully able to show the numerous examples of how a student acquires the ability of artistic representation. Contacts with former students provided missing examples of subjects of interest. I included illustrations of such work in the book although I regret that, to avoid repetition, I had to eliminate other examples of tasks set by Johannes Itten. The text of the first edition has remained unchanged except where it relies on illustrations for its comments. Illustrations in the chapter 'Subjective Forms' have now been omitted because this chapter is concerned with knowledge that is not confined to any one person, but can be grasped by any reader on the strength of his own powers of observation.

In his book 'Kunst der Farbe' (The Art of Color) 1961 Johannes Itten likened his theory to a coach in which a traveler can make rapid and safe headway along a stretch of paved road; as soon as he reaches the end of the road, however, he must alight from the coach and continue on foot. This comparison appears particularly apt when it is applied to the theory and practice of design and form. Among the students' names are those of artists, architects, and educators that are famous today and have long left the coach to make their own, independent way, and whose life's work can already be assessed as an integrated whole. I met many former students working in the most diverse fields, often away from the glare of publicity. I was again and again struck by the fact that often a single exercise among all the many stimulating ideas emanating from Johannes Itten's teaching had become the basis of a man's entire work. To my sincere thanks to all those former students whose work made this publication possible I must add the wish that Johannes Itten expressed in his book in 1963: 'If this book can serve as a signpost for other students and developing young artists and offer them encouragement and fresh ideas on their difficult path through life, my wish that goes out with its publication will come true.'

Zurich, February 1975

Anneliese Itten

Introduction

The most precious moments in a student-teacher relationship, when the teacher succeeds in lighting an intellectual spark in a student as he gets through to his innermost being, can never be repeated. What I can describe of my teaching activity appears to me poor compared with what actually happened during my work in the classroom. The intonation, the rhythm, the sequence of words, time, and place, the intellectual conditions of the students, and all the other circumstances which create a dynamic atmosphere cannot be recreated; but this is the very medium which helps to produce this creative climate.

My teaching was based on intuitively feeling my way towards my aim. My own involvement in the subject created the tension which produced in the students their complete readiness to absorb what I had to offer. Teaching with enthusiasm is the opposite of a preconceived, merely methodical approach. My best students were those who have, inspired by their own intuition, chosen other, new paths. Superficial imitation and repetition of my example lacks this spark of inspiration. I am, however, fully aware that my own discoveries were not always truly original; some were mere revivals of what had provided artists of a bygone age with an important basis for their work.

I owe my first educational ideas to the young, forward-looking head of my teachers' training college. He opened my eyes to the fact that children in their natural lack of inhibition are capable of composing astonishingly original drawings, essays, and songs. When I began my career as a primary school teacher in a Bernese village in 1908, I tried to avoid anything that could disturb the naïve unself-consciousness of the children. Almost instinctively I recognized that any criticism or correction has an offensive and destructive effect on self-confidence, that praise and appreciation of work well done encourages personal growth. After a year's teaching an intimate, very gentle, and sensitive atmosphere had developed in the class. The inspector arrived, picked up a few essay books from a pile, and, clearly annoyed, wanted to know whether I was not aware that it was one of the teacher's tasks to correct the essays. 'I am convinced that any correction of an essay proves offensive, and that it destroys the innocent imaginative way a child tells a story.' 'But what about spelling?' I replied: 'I read through the essays and make a note of the mistakes. When I return the essays, the mistakes are discussed in class, the words are written on the blackboard and the pupils enter them in a copy book in alphabetical order. A few weeks later I give them dictation. This is how they learn the correct spelling of hundreds of words within a year.'

There is no field of human activity in which talent plays so decisive a role as in education. Only the talented educator, that is a person with a flair for education, will respect and protect in a child the indescribable miracle of his or her humanity. Respect for the human being is the beginning and end of all education. Education is a bold venture – particularly in the arts, because it involves the creative spirit of man. Knowledge of human nature – intuitive knowledge of human nature – appears to me to be a gift essential to the true educator, who needs to recognize and be able to develop the natural talents and temperaments of those in his charge. A teacher who communicates to his students nothing but the syllabus laid down by the authorities, using methods he learnt at the teachers' training college, can be compared to a dispenser of pills made up according to prescription, who can never be a true physician.

When I took up my art studies at Geneva in 1910, the subjects were taught, there as in all other art colleges, in a medieval manner. The professors set themselves up as examples to their students, and the students followed them. The star students were those who made the best job of copying their professors. Disappointed, I returned to the University of Berne to continue my training as a secondary school teacher. A journey from Berne to Holland and a visit to the 'Sonderbund' (Secession) Exhibition at Cologne renewed my decision to give up teaching and to become a painter. I now believed that I knew what I wanted to learn, and went back to Geneva. In a course run by Prof. Gilliard I learned something very important: he introduced me to the geometrical elements of form and their contrasts.

From 1913–16 I was an extramural student of Adolf Hölzel at Stuttgart. Besides pictorial composition, the main subject of study was the principles of the theory and practice of color. Hölzel explained in his lectures the pictorial construction of the Old Masters and the pictorial use of light and dark. His whole endeavor consisted in the study and teaching of the artistic means of representation. He was a teacher receptive to anything that was new. In his circle I met Ida Kerkovius, Oskar Schlemmer, and Willy Baumeister. In spite of the terrible events of the war we held discussions on the artistic problems of cubism and futurism. During 1915–16 I worked on pictorial compositions of geometrically abstract forms and collages of natural materials. To enable me to make a living, Hölzel sent me my first students.

Initially my own work was strongly reflected in my teaching, but the many questions of my students soon focused and clarified for me the problems of education in the arts.

Following the invitation of one of my students I moved to Vienna in 1916. The war was still at its height and the city full of sombre tension. To enable me to paint, I again tried to earn my living by art teaching. The number of students I was able to confront with novel tasks soon grew. Geometrical and rhythmical forms, problems of proportion and of expressive pictorial composition were studied in depth. Tasks involving textures and the evolution of subjective forms were new. Besides the theory and practice of polar contrast the exercises in relaxation and concentration required of the students proved amazingly successful. I recognized creative automatism as one of the most important factors of artistic activity. My own work focused on geometrical-abstract subjects based on careful pictorial composition.

In the summer of 1919 Alma Mahler-Gropius, deeply interested in my painting and ideas of teaching, invited me to meet her husband Walter Gropius, who had been appointed head of the Staatliches Bauhaus at Weimar. When he had seen my own work and that of my students he suggested that I come to Weimar to teach at the Bauhaus. What attracted me there particularly were the classrooms and workshops, as well as the fact that the premises were still empty, and new facilities could be installed without much demolition. Gerhard Marcks and Lyonel Feininger, the first teachers to be appointed by Walter Gropius, had already arrived. The aims and methods of the Bauhaus were still little known in 1919, and published only in a manifesto by Walter Gropius. Among other aims, the manifesto proclaimed:

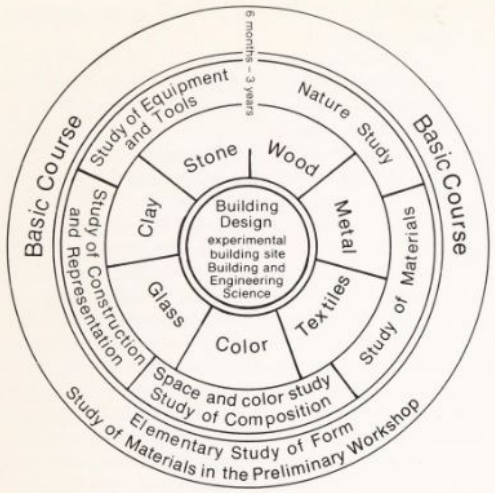
> 'The ultimate aim of any creative activity is building . . . architects, sculptors, painters, we all must become craftsmen again . . . no essential difference exists between the artist and the craftsman, the artist is a craftsman of heightened awareness . . . But the basis of craftsmanship is indispensable to all artists. It is the prime source of all creative work.'

Sixteen of my Viennese students – Carl Auboeck, Josef Breuer, Max Bronstein, Maria Cyrenius, Friedl Dicker, Walter Heller, Alfred Lipovec, Vally Neumann, Olga Okuniewska, Gyula Pap, Franz Probst, Franz Scala, Franz Singer, Naum Slutzky, Margit Téry-Adler and Anni Wottitz – followed me to Weimar in the fall of 1919, where they formed the nucleus of the first course at the Bahaus. For the winter term 1919–20, young and not-so-young students from all parts of Germany and at very varied levels of training had also enrolled. Most of them had attended the usual colleges of arts and crafts and academies of art. The work they submitted for acceptance by the Bauhaus was devoid of individual expression. It was difficult to assess the students' potential and character. In my Viennese students I had found that it is possible to inspire those interested in art but whose talents were still dormant, and to enhance their originality. I therefore suggested to Walter Gropius that all students who showed an interest in art should be provisionally accepted for a term. We called this trial term the Basic Course. Originally this title indicated neither a special syllabus nor a new teaching method. I took personal charge of this preparatory course in the autumn of 1919. Generously, Walter Gropius left me a completely free hand in its arrangement and content.

The Basic Course presented me with three tasks:

(1) To liberate the creative forces and thereby the artistic talents of the students. Their own experiences and perceptions were to result in genuine work. Gradually, the students were to rid themselves of all the dead wood of convention and acquire the courage to create their own work.

(2) To make the students' choice of career easier. Here exercises with materials and textures were a valuable aid. Each student quickly found the material with which he felt



Syllabus of the Weimar Bauhaus, 1923

the closest affinity; it might have been wood, metal, glass, stone, clay or textiles that inspired him most to creative work. Unfortunately, at that time the Basic Course did not have a workshop, where all the basic skills such as planing, filing, sawing, bending, gluing, and soldering could be practiced.

(3) To present the principles of creative composition to the students for their future careers as artists. The laws of form and color opened up to them the world of objectivity. As the work progressed it became possible for the subjective and objective problems of form and color to interact in many different ways.

One term was set aside for the Basic Course. The graduates of this course were to learn a craft in the workshops of the Bauhaus and at the same time prepare for future cooperation with industry. The diagram above shows the 1923 syllabus at the Bauhaus.

I considered it essential, in teaching the means of artistic representation, to evoke an individual response in students of various temperaments and talents. This was the only way to generate the creative atmosphere conducive to original work. The work was to be 'genuine'. The student was to acquire natural self-confidence and ultimately find his vocation. Persons of different talents react quite differently to the means of expression and they accordingly develop along different paths. Some respond most readily to contrast between light and dark, others to form, rhythm, color, proportions and constructions, textures, spatial directions or volume. I could thus recognize in one of my students a 'light–dark' type, or a 'rhythm' type, or a 'metal', 'wood', or 'glass' type. But these 'types' are seldom clear-cut; usually several strands of talent interweave to determine a person's character. I succeeded in opening up individual potentialities by adopting a certain way of teaching my students how to use the media of expression.

Imagination and creative ability must first of all be liberated and strengthened. Once this has been achieved, technical and practical demands and finally commercial considerations may be introduced. Young people who begin with market research and practical and technical work seldom feel encouraged to search for something really new. If new ideas are to assume artistic form, physical, sensual, spiritual, and intellectual forces and abilities must all be equally available and act in concert. This realization largely determined the subjects and methods of my teaching at the Bauhaus. It was essential to build up the individual student as a well-integrated creative person, a program I consistently advocated in the 'Council of Masters'.

The political and economic instability following the war had, however, a very adverse effect on our work. Many students were destitute and, with not enough to eat, faced an uncertain future. Although studios were available, they were unheated. At first the classrooms had no tables and chairs, and the students were forced to work squatting on the floor. During my first winter, 1919–20, I therefore lectured only one morning per week. The rest of the time the students worked individually at home on the tasks assigned to them, and without correction. This enforced self-reliance was not without significance to a student in 'finding the sources of his own self'. Cramming a student with irrelevant knowledge and not giving him enough time for taking stock of himself forms an obstacle to personal growth.

When the first Basic Course finished in the spring of 1920, nobody took any notice of the students who were now to enter the workshops, and it fell to me to set them practical exercises there, too. I therefore gave them suitable objects on which to realize the formal principles they had studied in the Basic Course. The exercise of carving textures in wood is shown on page 41. Later they made a chest with textured surfaces. Working with textures and materials also had an effect on work with fabrics. The weaving technique enabled carpets to be made from different materials before weaving proper became part of the Bauhaus activities. The stone (page 85), the metalwork of the door lock (page 66), the embroidered silk scarf (page 67), and the ornaments and box (page 87) were likewise the first tasks I set in accordance with my Basic Course work.

No classes in architecture existed at the Bauhaus. Walter Gropius, the only architect at the institution, was fully occupied with the difficulties of organization and private commissions, which left him no time for teaching. In those days I took care of the students whenever they were not taught by anyone else. Paul Klee, Georg Muche, and Oskar Schlemmer received calls to the Bauhaus at my suggestion. Only in the summer of 1921 was the 'Council of Masters' complete, and heads were appointed to the workshops.

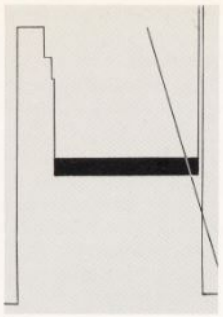
The terrible events and the shattering losses of the war had brought in their wake confusion and helplessness in every walk of life. The students held endless discussions in their eager search for a new intellectual approach. My attention was drawn to Spengler's book '*The Decline of the West*'. I became aware of the fact that our scientific, technological civilization had reached a critical point. I did not believe that the slogans 'Back to the Crafts' or 'Unity of Art and Technology' were capable of solving our problems.

I studied Eastern philosophy, and became interested in Persian Zoroastrianism and Early Christianity. This made me realize that our outward-looking scientific research and technology must be balanced by inward-looking thinking and by our spiritual forces. Georg Muche's war experiences had led him to similar conclusions and we collaborated in a friendly spirit. We searched for bases on which to build a new practical approach to life for ourselves and our work. I was ridiculed at the time because I did breathing and concentration exercises. Today many people consider an interest in Eastern philosophy quite natural.

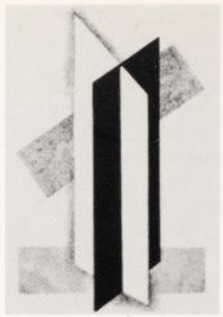
These first years of the Weimar Bauhaus were wrongly called its romantic period. In my view they were the universalist years. Certainly mistakes were made then in the exuberance of our hectic search for aims and of our practical experiments. What we all lacked was a great teacher who could have guided us through the turbulence and chaos of the era.

Teachers sometimes begin their lessons with a prayer or a song to concentrate the pupils' wandering thoughts on the subject. My first morning periods in class began with relaxation-, breathing-, and concentration exercises to establish the intellectual and physical readiness which make intensive work possible. The training of the body as an instrument of the mind is of great importance to a creative person. How can a hand express a characteristic feeling in a line, when hand and arm are cramped? The fingers, the hand, the arm, the whole body can be prepared for the task by exercises of relaxation, strengthening, and sensitization. The body can be relaxed in three ways: firstly, by movement of the arms and legs, by bending and turning the whole body, with special regard to the mobility of the spinal column; secondly, by keeping the standing, sitting, or reclining body perfectly still, and relaxing one part after another by thought concentration. This is the only method of relaxing the internal organs. The third way of relaxing, balancing, and harmonizing the body consists in the use of sound vibrations. The students first had to practice sound production – they had to learn to feel where the sounds vibrated in the body. The hummed note must be intense even if its volume is low. A sound filled with the powers of the heart can work wonders. Besides relaxation breathing is of great importance. As we breathe, so we think and conduct the rhythm of our daily routine. People who have achieved great success in their lives always breathe quietly, slowly, and deeply. Those who are short of breath are hasty and greedy in their thoughts and actions. By means of breathing exercises I tried to train my students

point

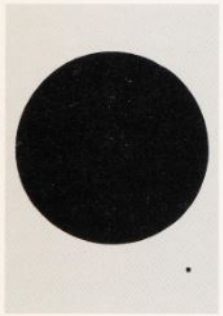


line

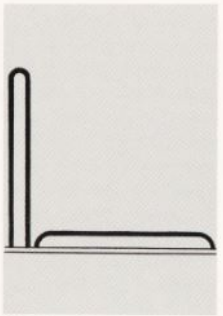


plane

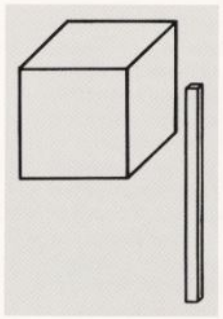
volume



large–small



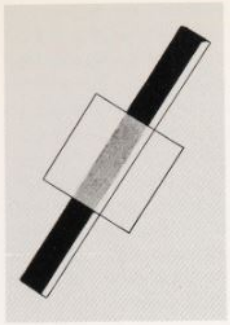
high–low



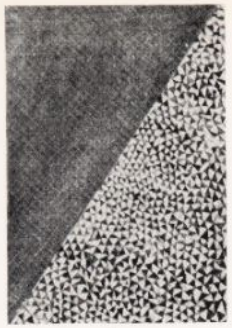
thick–thin

broad–narrow

Representation of contrasts

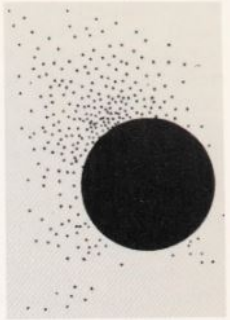


transparent–opaque

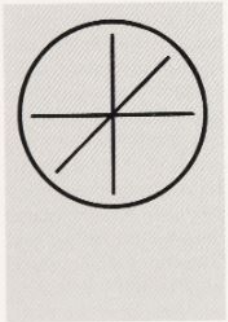


smooth–rough

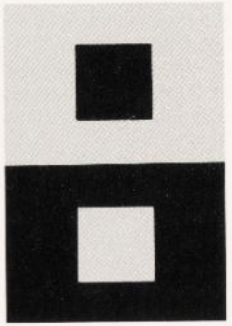
rest–motion



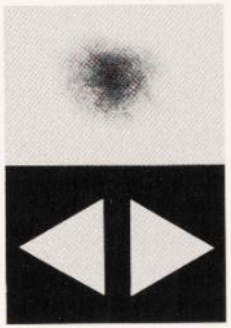
much–little



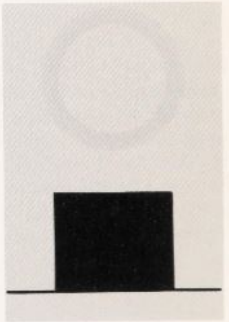
contrasts in directions



light–dark



soft–hard



light–heavy

to breathe quietly and more deeply. All these exercises achieve their proper effect only if they are carried out with thought concentration. Newly-arrived students joined these morning exercises with some initial puzzlement and inner resistance, but after only a few days most of them were ready to take part with enthusiasm.

I supplemented these relaxation-, sound-, and breathing exercises with short lectures on general subjects from everyday life. This created the necessary receptiveness in class and I was able to begin with establishing in my students the means of artistic representation.

When discussing any subject in depth I always maintained the principle of experience–perception–practical ability. My first aim was to awaken a vital feeling for the subject through personal observation. Joint drawing exercises led to the subject of the day's work. This was followed by intellectual explanation and comprehension, and only then by the realization of the task.

Paul Klee, who visited the Bauhaus in January 1921 to find out what it was all about, unexpectedly came into my Basic Course class while we were doing rhythmical form exercises. With some irony he wrote in a letter, dated 16 January 1921, to his wife:

> 'After walking to and fro several times Itten approaches the easel with a drawing board and scribbling pad. He picks up a piece of charcoal, his body tenses up as if becoming charged with energy, and then, suddenly goes into action – once, twice. One sees the form of two forceful lines, vertical and parallel on the top sheet of the pad; the students are asked to repeat this. The master checks their work, asks some of them to demonstrate it individually, corrects their posture. He then, beating time, orders them to do it rhythmically, and then has them carry out the same exercise standing up. What is intended seems to be a kind of body massage, to train the body machine to function sensitively. Similarly, new elementary forms such as  and others are demonstrated and copied (for instance  and ) with several explanations of the why and wherefore and the mode of expression. He then talks about the wind, and asks some of the students to stand up and express their feelings in the guise of wind and storm. Then he sets the task: Represent the storm. He allows them ten minutes to do it in, then inspects the results. This is followed by critical assessment. Thereafter work continues. One sheet after another is torn off, flutters to the ground. Some students work with such *élan* that they use up several sheets at a time. In the end they all become a little tired, and he sets his Basic Course students the same task as homework for further practice . . .'

The basis of my theory of composition was the general theory of contrast. The chiaroscuro (brightness–darkness) contrast, the material and texture studies, the theory of forms and colors, the rhythm and the expressive forms were discussed and demonstrated in terms of their contrast effect. Finding and listing the various possibilities of contrast was always one of the most exciting subjects, because the students realized that a completely new world was opening up to them. Such contrasts are: large–small, long–short, broad–narrow, thick–thin, black–white, much–little, straight–curved, pointed–blunt, horizontal–vertical, diagonal–circular, high–low, area–line, area–body, line–body, smooth–rough, hard–soft, still–moving, light–heavy, transparent–opaque, continuous–intermittent, liquid–solid, sweet–sour, strong–weak, loud–soft, as well as the seven color contrasts. All these contrasts had to be studied in detail, as illustrated on pages 10 and 11. The students had to approach the contrasts from three directions: they had to experience them with their senses, objectivize them intellectually, and realize them synthetically. Contrasts such as black–white, large–small, and cold–hot are particularly powerful examples of this complex. As life and beauty unfold in the regions between the North Pole and the South Pole of our planet, so life and beauty of the world of contrast are to be found in the graduations between the poles of contrast. In the light–dark contrast, the artistic possibility of application lies in the many hues and tone values between black and white. Black and white are points of reversal, not end points of the light–dark character. The poles of all the other contrasts have the same significance.

Adolf Hölzel's Stuttgart lectures impressed me profoundly with the importance of the study of the Old Masters. Knowledge of their working methods is useful. It heightens the awareness of order and disposition in the picture area and the feeling for rhythm and texture. This study can be an obstacle to development and do damage, but only in the absence of a watchful self-criticism, without which only academic copying can be achieved. Each time principles of form, rhythm, or color had been discussed, I asked my students to analyze relevant masterpieces to make them see how different masters solved a given problem. When a pianist seeks to experience for the first time a piece of music by playing it, it cannot be his aim to play each note and each rhythm as the composer prescribed them; he will endeavor to grasp the general, rough outline of the composition. Only after much laborious study of detail can he hope to achieve an accurate rendering. I therefore had my students analyze Grünewald's painting of the crucifixion from a projected slide in black and white, after they had studied the problems of the expressive forms in depth. Like the pianist, the students had to reproduce empathically how the tragedy of the event was expressed in the painting. An analytical lesson in 1923 caused Walter Gropius to observe that he could no longer be responsible to the government for my methods of teaching. I decided spontaneously, without any remonstrations, to leave the Bauhaus.

In 1926 I founded my own art college in Berlin. Painters, graphic artists, architects and photographers attended the college for two to three years' training, and I was able to familiarize them more thoroughly with the general theory of composition than I had been able to do during a single term of the Basic Course at the Bauhaus at Weimar. In 1931, the heads of the velvet and silk industry at Krefeld asked me to set up a college for textile designers. Here I had to meet the requirements of a specialized industrial college. Apart from general artistic training, the student textile designers had to be given technical instruction. For two years I was head of both the Berlin and the Krefeld colleges.

Harassed by the Nazis, I dissolved my college in Berlin in 1934. Nor did the great achievements of the State college at Krefeld protect me from attacks. To continue as head of the college, I would have to adopt German nationality; I found this unacceptable and in 1938 I left Krefeld. Six months later I was able to take over the direction of the Museum of Arts and Crafts and of the College of Arts and Crafts in Zurich, and in 1945 also of the Textile College associated with the Zurich silk industry. At both colleges I taught only one half-day a week, because organizational and administrative duties took up the rest of my time.

This book shows work by students covering a long period – work from my college in Vienna, the Bauhaus in Weimar, the Itten College in Berlin, the College of Textile Design in Krefeld, as well as the College of Arts and Crafts and the Textile College in Zurich. At the 1923 Bauhaus Exhibition in Weimar the work of the Basic Course was broadly represented. The publications in the various Bauhaus books were, however included without my cooperation, and the comments on the illustrations from my Basic Course are, I regret to say, often misleading or incomplete. Many examples in this book originated in my Berlin College – which does not mean that these or similar tasks were not also set in Vienna, Weimar, Krefeld, or Zurich.

The many drawings and illustrations in my *Diary*, duplicated at the Berlin college in 1930, deal with the problems of the use of form and color that I encountered as a painter and teacher. Because my theory of colors has already been described in my book *Art of Color*, published in 1961, only an outline of this subject has been drawn in the present book.

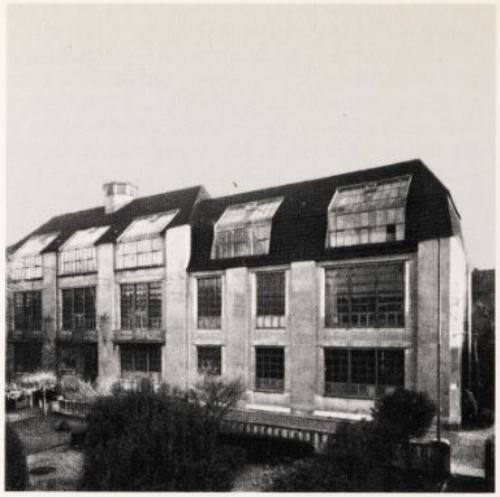
This book is not intended to offer a systematic syllabus and sequence of subjects to be copied for a course of instruction. What it attempts to do is describe the essence of my methods of teaching. I opened the first students' exhibition in 1918 with the following words by Lao-Tse:

> 'Thirty spokes meet in the hub,
> but the empty space between them is the essence of the wheel.
> Pots are formed from clay,
> but the empty space within it is the essence of the pot.
> Walls with windows and doors form the house,
> but the empty space within it is the essence of the house.'

The principle:

> Matter represents the usefulness
> Non-matter the essence of things.

Johannes Itten, 1920.



The Bauhaus, Weimar.

Itten College, Berlin – Wilmersdorf, 1929.

Morning exercises on the roof of Itten College, 1931.

Museum of Arts and Crafts, Zürich.

Johannes Itten lecturing in 1954.

Discussion of students' work, 1932.

The theory and practice of design and form is explained with students' original work based on subjects and tasks set in class by Johannes Itten at the following institutions:

Kunstschule Wien 1917–1919.
Bauhaus Weimar 1919–1923.
Ittenschule Berlin 1926–1934.
Textile Flächenkunstschule Krefeld 1932–1938.
Kunstgewerbeschule Zürich 1938–1954.
Textilfachschule Zürich 1942–1960.

Chiaroscuro

To the practitioner of the fine arts, the contrast between light and dark (chiaroscuro) is one of the most expressive and important means of composition. The students must first of all learn to comprehend that all contrast effects are relative. A line appears long or short according to its relation to a shorter or a longer line. In a pictorial composition a large, dark form becomes more significant if a small, bright form counteracts it. A gray tone appears light or dark depending on whether it is compared with a darker or a lighter tone. If composition is to be based on a certain contrast, this relativity plays an important role. The two contrasting elements must be chosen so that they result in a definite expression.

As an introductory exercise in the study of the light–dark contrast I set the task of producing a white and a black circle. The students quickly realized that the outline of a circle drawn on white paper does not yet indicate that the area of the circle is white. It will appear so only when a more or less dark tint is applied around it (page 18). The students will also find it instructive to investigate how dark the surrounding tone must be for the circular area to appear white. They will see that even a light, delicate gray tone may be sufficient. In this book I shall deal only with the character of the light–dark contrast and its representation from white to black. The problems of light–dark contrast in color are discussed in detail in my *Theory of Colors*.

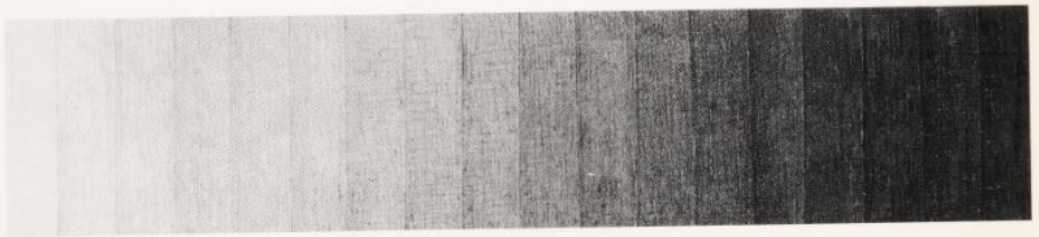
Before closely-defined exercises, to be solved in an intellectually constructive manner, are set, subjects should be offered that can be mastered on the basis of free perception and imagination. For these black-and-white effects Indian ink or soft charcoal are useful, because they react to the most delicate manual pressure. Such a task can involve the representation of white cups, black saucers, and a white egg (page 19). Other subjects are perhaps black-and-white spotted chickens or cats, white laundry, or a snowscape with dark pine trees.

Most students are found to have difficulty in perceiving many tones of different degrees of lightness and darkness, and in reproducing them clearly and distinctly. To improve this perception and representation, tone scales must be constructed. This exercise makes the tones purer, and heightens perception. The tones must be separated neither by white nor by black lines; each step must consist of a single tone only. I have found that keen and gifted students were able to make up to 44 steps between black and white visible. Light–dark 'chords' can be composed of areas of the same size or of different proportions. Such composition helps students to realize that not only the individual different brightness values, but also the tonal harmony, play important parts. On page 20 an exercise in composition is shown, whose difficulty lies in the fact that tones of different strength must be used for areas of different size. When they reproduce given representational forms the students must concentrate their whole attention on the tone value scale. To enhance the perception of different tone values, pictures can be analyzed. Page 21 shows such a study, based on a painting by Goya. It is divided into squares to make the students examine every single area of the painting in greater detail.

The contrast between light and dark is the ideal medium for rendering light and shade and three-dimensional forms. It has a meaningful use in nature studies. We must bear in mind here that compositions depending mainly on effects of light and dark are never begun in outline, because the extent and the harmony of patches and masses are determined by the intensity of the force of light and dark. The qualitative effect of light and dark patches and masses greatly differs from that of outlines. Dark forms against a light background, and light forms against a dark background, can be effective. But in a picture a light and a dark scheme can be placed in opposition. In the light scheme dark tones, and in the dark scheme light tones, can be conspicuous. Such a combination is called a 'reversal' (page 26).

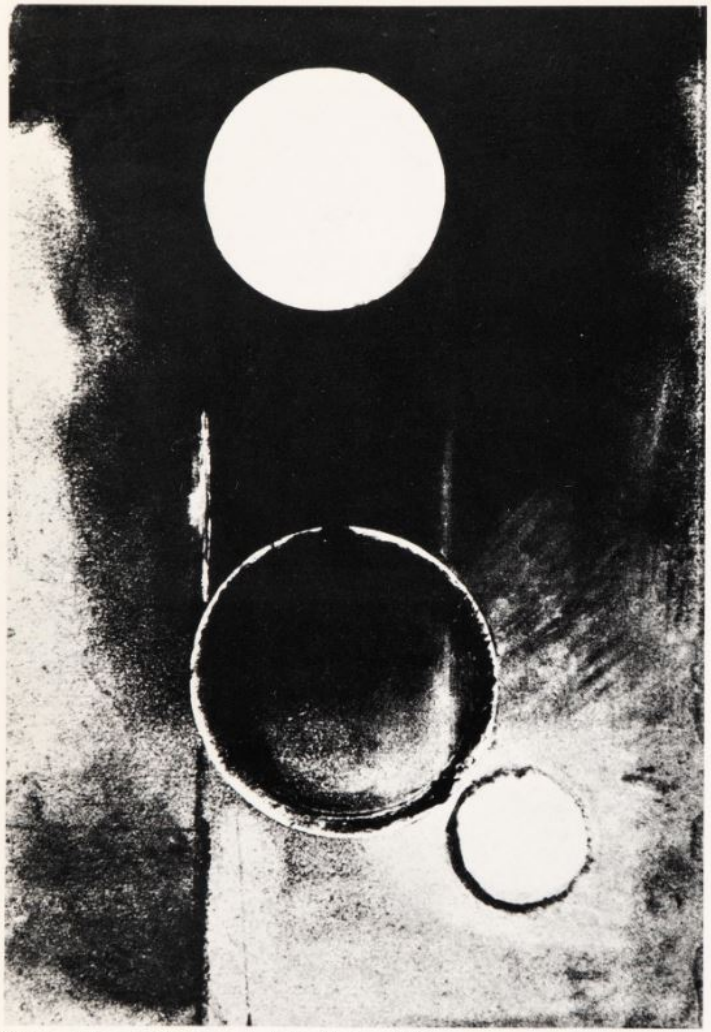
To enhance their perception of tone values I asked my students to compose non-objective patches in different tones. When the work of an entire class is laid out for comparison the students themselves will easily distinguish between the good and the not-so-good solutions. To recognize the possibilities of spiritual expression inherent in the tone values, the student solves problems which he must develop from free imagination: 'Tree covered in hoar frost', (page 27) 'Storm', 'Twilight', 'Under the street lamp'.

The analytical study of the light–dark (chiaroscuro) values, and their possibilities of composition and expression in old and new masterpieces, reveals the use and importance of chiaroscuro in painting. The temperamental nature of an artist determines whether he uses chiaroscuro constructively in a clear, orderly manner, renders it purely optically as light and shade, or adopts it as a highly sensitive means of expression. Giotto, for instance, employed chiaroscuro as a constructive, as it were architectural, element in his paintings (page 31).



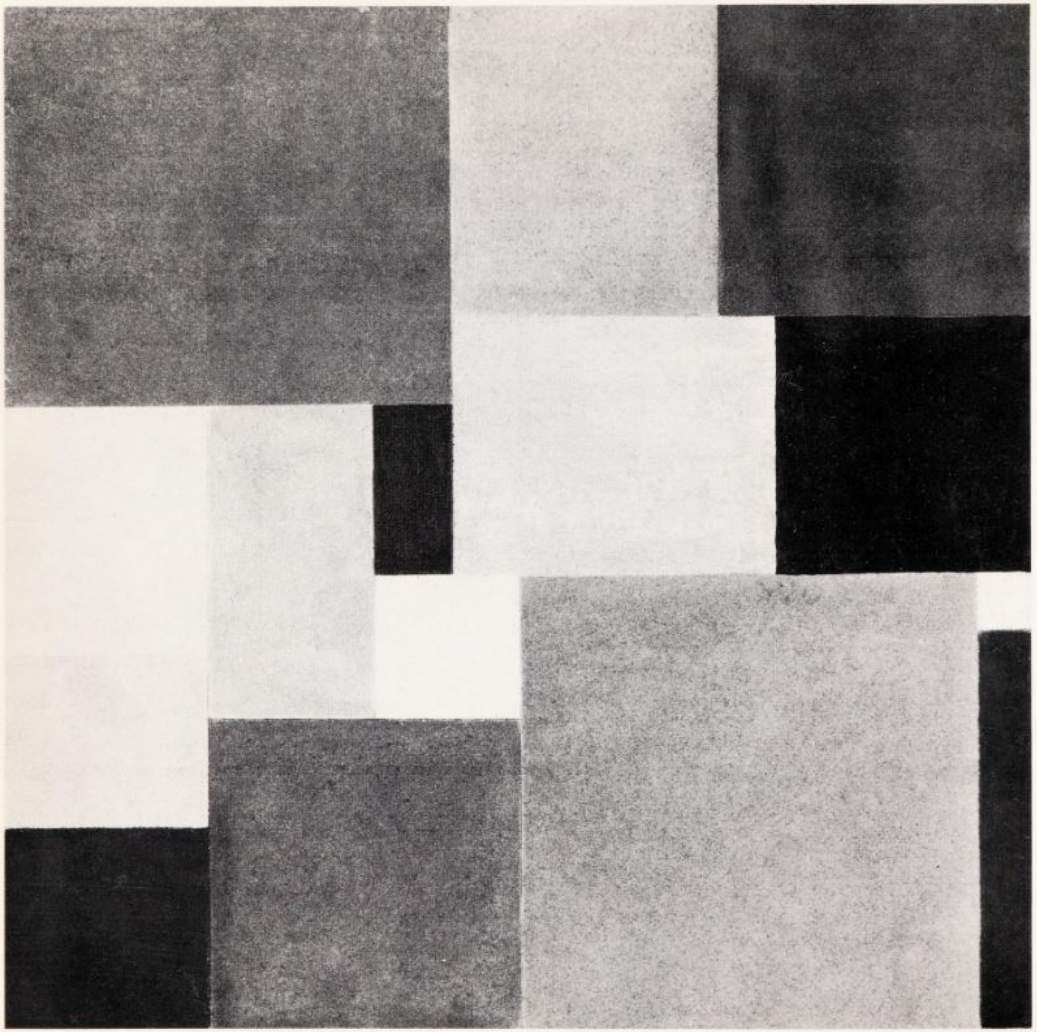
Tone value scale

Light–dark harmony



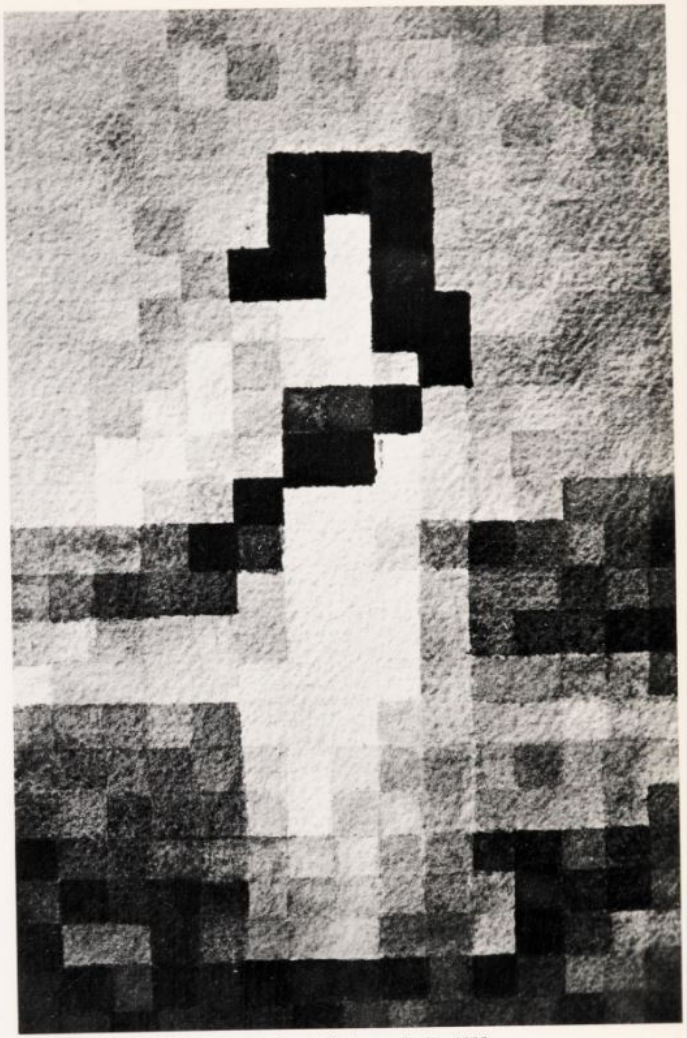
White and black circular areas. F. Dicker, Weimar, 1919.

White cups, black saucers, and a white egg. L. Müller, Berlin, 1931.



Area of various sizes and tone values balanced out.

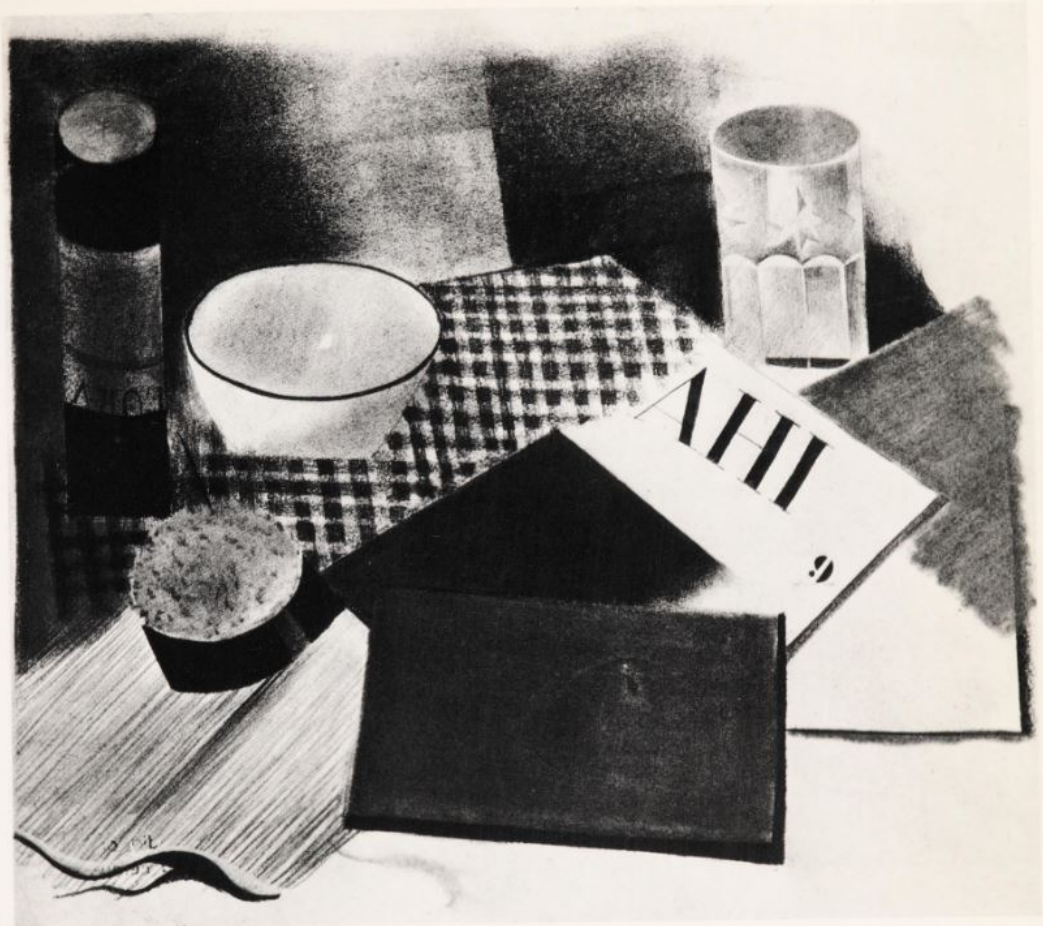
The geometrical analysis of Goya's painting *The Duchess of Alba*, and the translation into black, white, and gray tones, are aimed at inducing the students to study the entire picture area thoroughly. Instead of objective forms, only tone values in a simplified rendering are to be produced.



Light-dark analysis of a picture by Goya. Mocznay, Berlin, 1930.

Geometrically analyzed natural forms composed as light-dark picture.

Nature studies in light and dark. Objects with simple forms were set up. Freely choosing the objects, the students had to compose still lives. The task consisted in translating colored areas into light-dark values. In such a representation, three-dimensional modeling is, to begin with, disregarded so that the students can gain an accurate idea of the tone values and the characteristic forms.



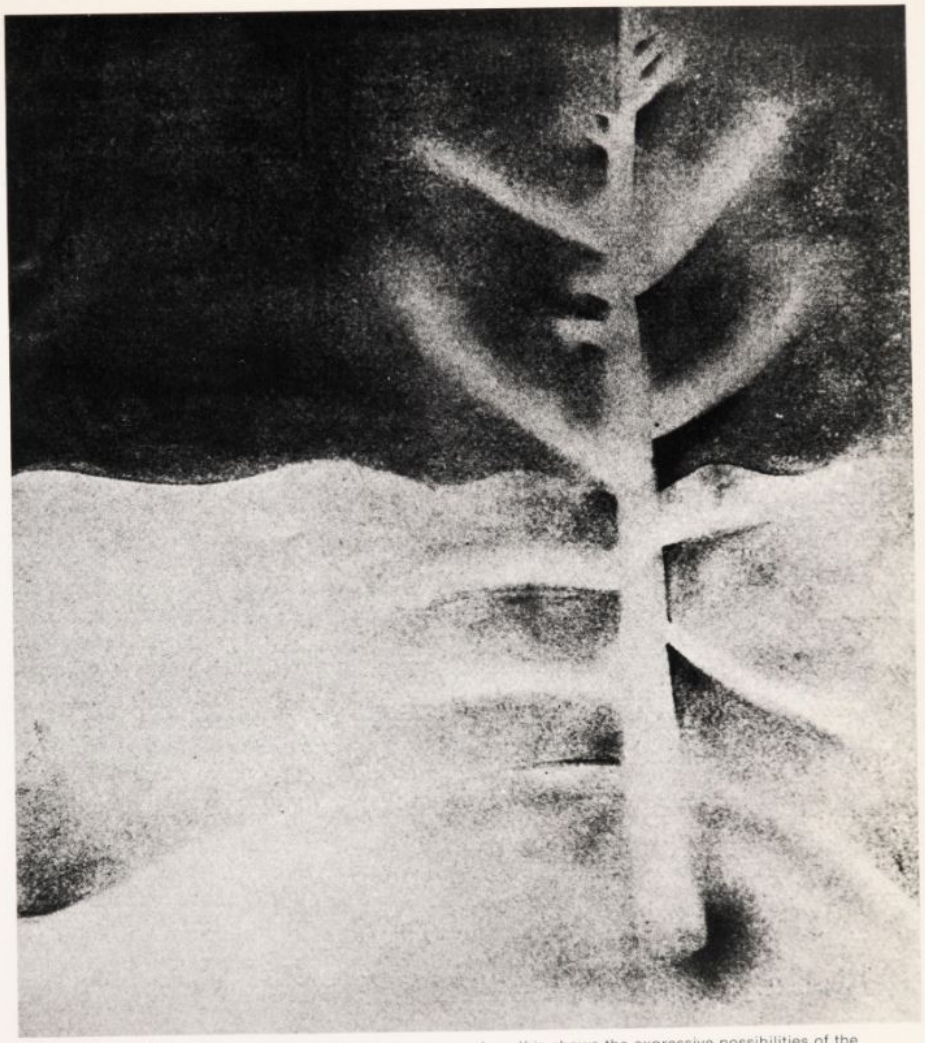
Light-dark study of a still life. E. Bäumer, Berlin, 1928.

A cluster of blossoms, with clear distribution of the tone values. S. Bauermeister, Berlin, 1931.

Horses, a study in light and dark. Three-dimensional forms contrast with linear elements. B. v. Graefe, Berlin, 1929.

Foxglove. E. Anbelang, Vienna, 1918.

In terms of composition, the study shows the transposition of light patches into the dark area and dark patches into the light area. The individual patches were produced without outline drawing.



Tree in Hoar Frost. P. Schmidt, Berlin, 1928. An exercise such as this shows the expressive possibilities of the light–dark values.

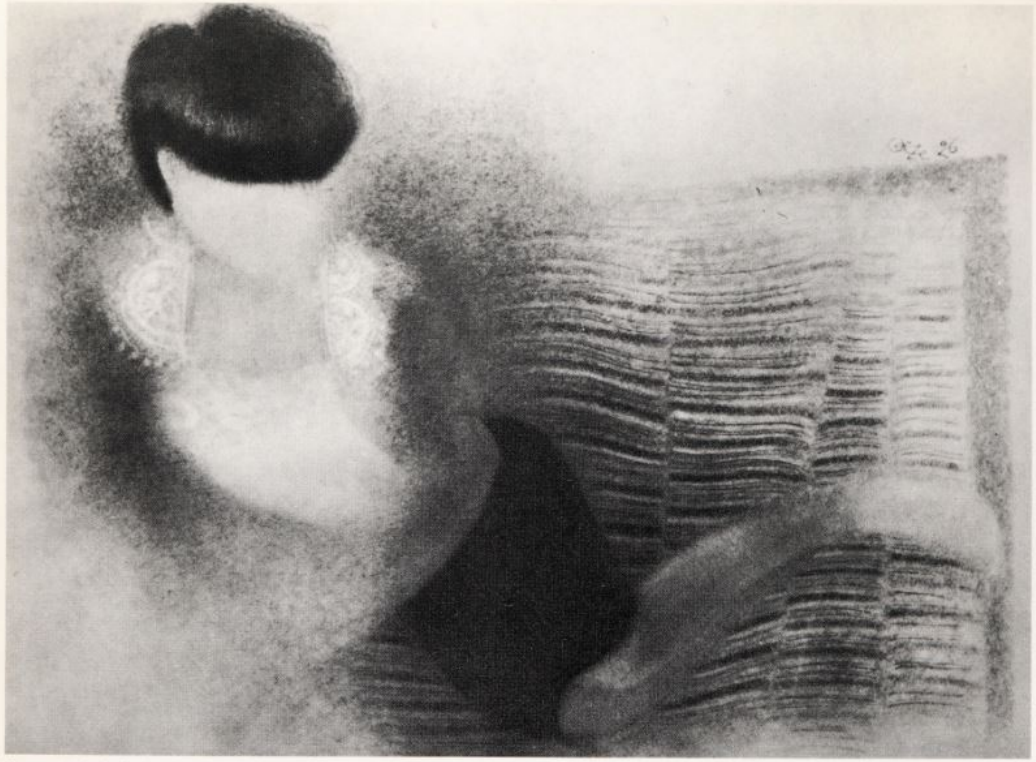
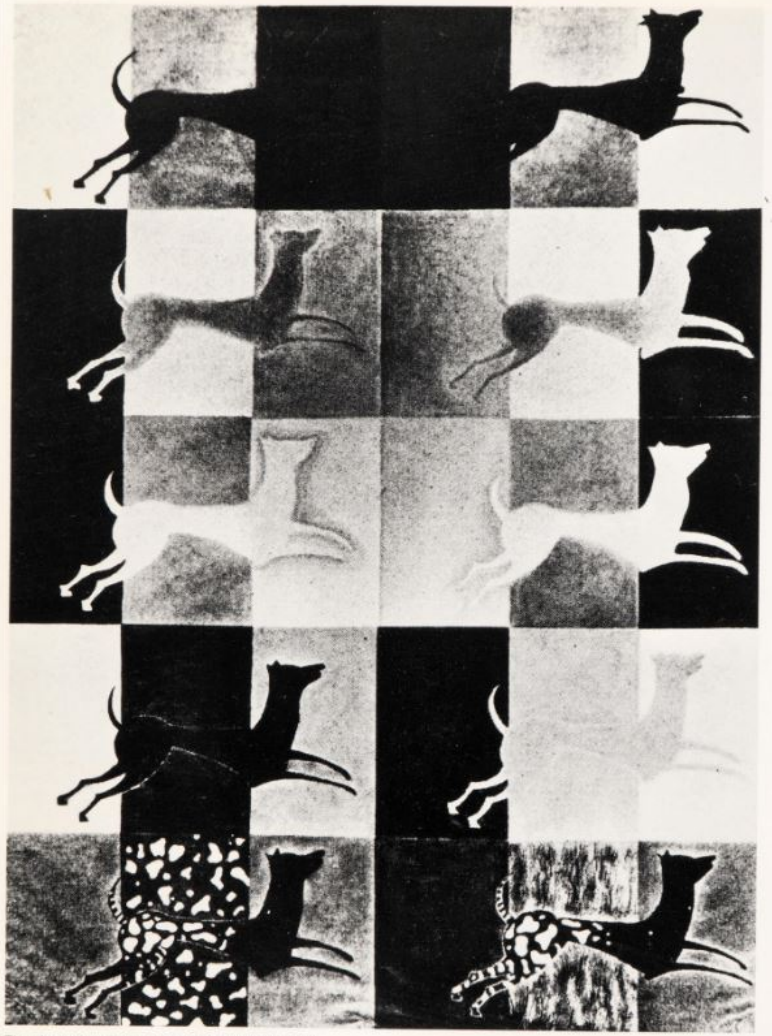


Figure study in light–dark modulation. R. Oelze, Berlin, 1926.

The Excursion. I. Hirschlaff, Berlin 1929.

A free composition on the theme "outing" was given as a monthly assignment after study of light-dark problems.. The light and dark, large and small spots stand in a lively relationship and present the theme as cheerful play.

Monthly exercises were carried out voluntarily on the most varied subjects. Only rarely did a student fail to present any work. Joint discussion of the solution in class was one of the most valuable periods, because the expression of forms, too, was debated. The students were able to compare their work and their creative powers; this provided them with a yardstick of their own performance.



The Jumping Dog. A. Rehse, Berlin, 1929.

Study of the disposition of light and dark values in the subject of the jumping dog. Identical tones attract, different ones repel each other. The white dog is attracted by white and repelled by black; it can jump. The black dog cannot jump if it is held back by the black area behind, and repelled by the white area in front of it.

Pictorial analysis of Giotto's *Annunciation of St. Anne.* Collage. M. Téry-Adler, Vienna, 1918.

In this painting Giotto composed the light–dark contrast in an elementary, simple manner. The chiaroscuro effect and Giotto's intention to use it for composition are clearly evident. Giotto created the mystery of the Annunciation by placing the figures in the light-dark contrast of the room in an abstract manner.

The Theory of Colors

It has been a main principle of my teaching to formulate simply and clearly the tasks I set my students. In the study of colors I have eliminated all formal investigation. The first exercise consists in composing random color patches isolated side by side and overlapping each other. The students usually began with outline drawings of patches, which they then painted in in color. Their attention was focused on the form, not on the color. To liberate the study of color harmonies from associations with form, as early as 1917 I introduced the chess board as the ideal pattern for most exercises. Only through painting can the student discover the secrets of the world of colors. Observation and visual appreciation of the colors are furthered when the student mixes colors after existing patches of color or after other colored originals.

Study of the twelve-part color circle forms the basis of my constructive theory of colors. The build-up begins with the three primary colors: yellow, blue, and red. Closely defined conceptions must exist for these primary colors.

Yellow must not tend towards yellow-green nor towards orange, blue must not tend towards blue-green nor towards blue-red, red must not tend towards red-orange nor towards red-blue. All three primary colors must be accurately produced, and then painted into the three parts of an equilateral triangle. Now the three secondary colors, orange, violet, and green, must be obtained as mixtures of the primary colors, and applied according to the illustration. The six colors found must also be painted in the appropriate sectors of the color circle. The intermediate colors still to be entered can now be produced easily, and the twelve-part color circle completed.

There are seven different contrast effects in the world of colors:

(1) *The pure color (hue) contrast:*
This results when pure colors are used in random combinations. White and black can further enhance the vivid effect.

(2) *The light–dark contrast:*
This is based on the use of different brightnesses and tone values of the colors. All colors can be lightened with white, and darkened with black. Tone scales which correspond to the light–dark scale (page 17) should first be made of each color.

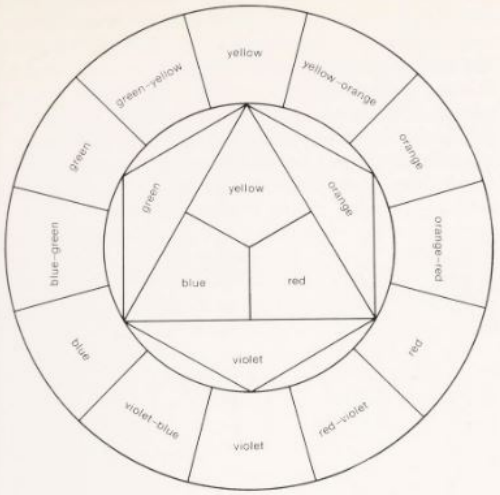
(3) *The cold–warm contrast:*
Its greatest effect is achieved with the colors orange-red and blue-green. All other colors appear cold or warm depending on their contrast with warmer or colder hues.

(4) *The complementary contrast:*
In my color circle the complementary colors occupy opposite positions. When they are mixed, the result is a neutral gray-black. When adjacent, complementary colors mutually intensify their luminosity to a maximum; when mixed, they extinguish each other to produce gray-black.

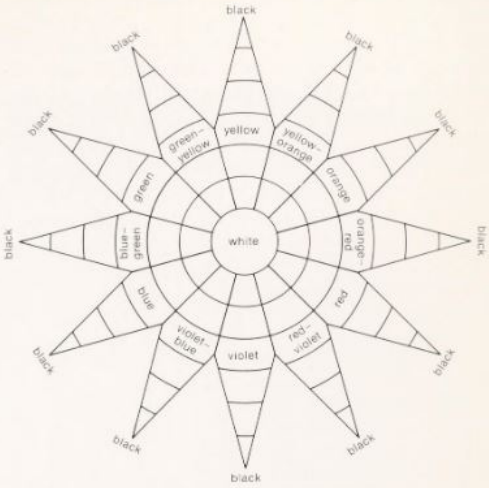
(5) *The simultaneous contrast:*
Its effect is derived from the law of complementary colors, according to which each pure color physiologically demands its opposite color – its complement. If this color is absent, the eye will produce it simultaneously. Strong green makes neutral gray next to it appear reddish-gray, whereas the effect of strong red on the same gray is a greenish-gray appearance.

(6) *The contrast of quality (color saturation):*
This is the contrast between luminous and dull colors. Colors can be subdued by the addition of black, white, gray, or complementary colors.

(7) *The contrast of quantity:*
This is based on the opposition of colored areas of different sizes.



The color circle



The color star

It is necessary to study the world of colors generally, and as comprehensively as possible. This is why the order of the colors in the color sphere and the general theory of harmony is taught in great detail. The color star, the projection of the surface of the color sphere onto a plane with the gradations of the twelve main colors towards black and white, provides a good survey of the structure of the whole essence of color. I developed this color star in 1921. It formed the basis of my teaching of color at the Bauhaus.

After the study and realization of the contrasts by means of painting them, exercises should be set which bring home the expressive qualities of the colors and the color contrasts. Subjects of such exercises can be: 'Night', 'Christening,' 'Funeral,' 'Fairground,' 'The Seasons'. The students learn that an appropriate timbre must be found for each subject. This leads to the recognition that subjective taste is not always enough to produce an objectively correct color judgment. The world of colors should be studied with paint and brush and presented to the eye with colored examples. This short treatise is confined to the methodical structure of my theory of colors. In my book *The Art of Color* the various contrasts and their uses are discussed in detail and illustrated with many color exercises and reproductions. (See the complete *Art of Color* or the textbook edition, *The Elements of Color*, published in 1970.)

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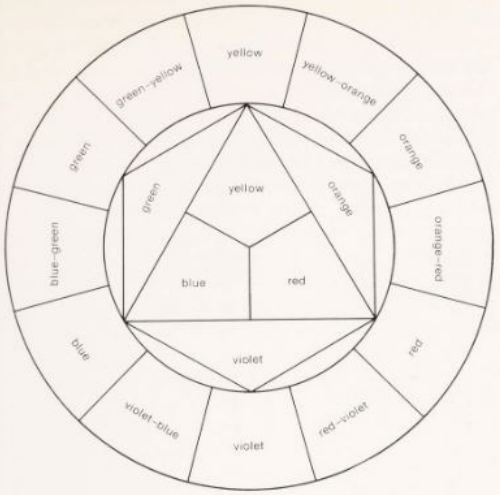

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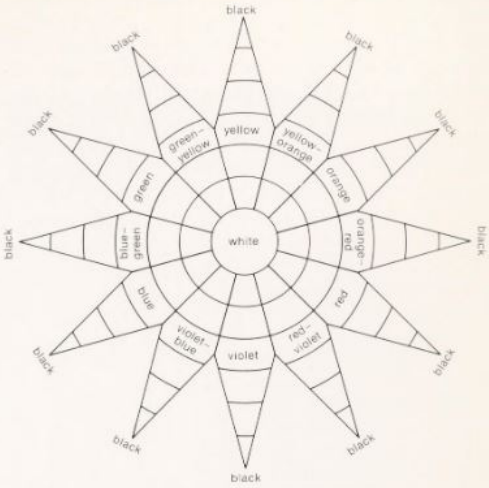

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Materials and Texture Studies

In the Basic Course at the Bauhaus exercises with materials and textures were found particularly stimulating. As an introduction long lists of the various materials, such as wood, glass, fabrics, bark, furs, metals, and stones were compiled. I then had the visual and tactile sensations of these materials entered against them in further columns. But knowledge of the words describing the properties was not enough; it was necessary to experience and to demonstrate the character of the materials. Contrasts such as smooth-rough, hard-soft, light-heavy had not only to be seen, but also felt. I have always laid particular stress on the comprehension by the senses of the typical properties of all objects. When, some time later, I was in charge of a course to introduce architects, painters, and teachers to the problems of the Bauhaus Basic Course, the first exercise I set was a still life. Two yellow lemons lay on a white plate, to which I added a book with a green cover. The members of the course felt almost insulted that they should be asked to draw something so simple.The outlines were laid down with a few quick strokes, and then everybody looked at me questioningly, without doubt expecting me to give them an introduction to geometrical problems of form. Without a word I picked up the lemon, cut it up and gave each member of the course a slice to eat, asking him: 'Have you reproduced the essence of the lemon in your drawing?' The answer was a sweet-sour smile, and everyone began afresh to study the still life intensely.

At the Bauhaus, I had long chromatic series of material samples made for the tactile assessment of the various textures. The students had to feel these sequences of textures with their fingertips, their eyes closed. After a short while their sense of touch improved dramatically. I then asked them to make texture montages of contrasting materials. Fantastic structures were produced and their effects were completely novel at the time (pages 36 and 38).

While solving these tasks, the students were gripped by an almost feverish activity of composition. They began to rummage through their grandmothers' chests of drawers for the odd treasures hoarded for a lifetime, through kitchens and cellars; they ransacked the artisans' workshops, the rubbish dumps of factories and building sites. The whole environment was rediscovered – rough pieces of wood and wood shavings, steel wool, lengths of wire and rope, polished wood and sheep's wool, feathers, glass, and tin foil, grids and weaves of all kinds, leather, fur, and shiny tin cans. Manual skills were discovered and new textures found (page 41). It was the beginning of a period of fantastic 'handicraftsmanship', and the newly-awakened sense of discovery found inexhaustible treasures of textures and possibilities of combination. The students observed that wood could be fibrous, dry, rough, smooth, or grooved, that iron could be hard, heavy, shiny or mat. In the end they searched for the means by which these texture qualities could be represented (pages 37 and 44). These studies were of great value to future architects, craftsmen, photographers, commercial artists and industrial designers.

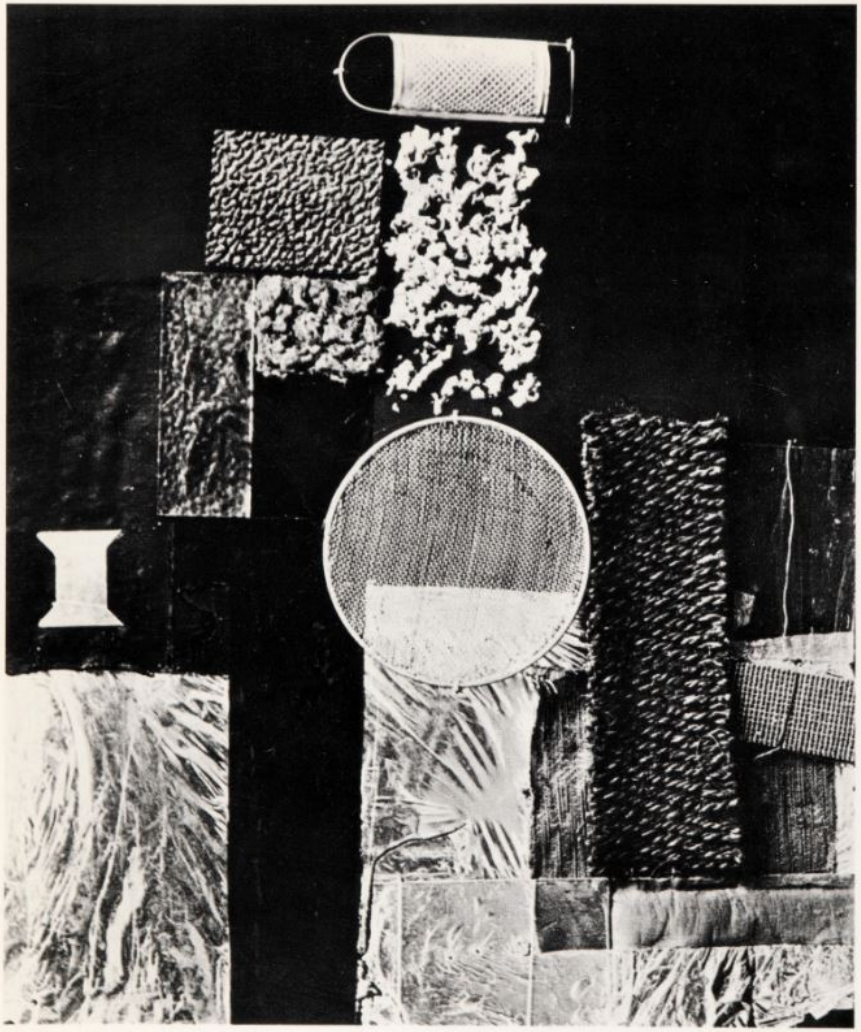
The textile designers found in the various yarns, types of weave, and technological processing possibilities a vast field for experimentation. The development of the sense of touch is of fundamental importance to all those connected with textiles. I therefore set even the textile merchants, technologists, and managers exercises in textures and texture contrasts.

At the College of Textile Design at Krefeld, texture studies were carried out with the aid of small handlooms. The rough fabric designs were produced, without any preliminary sketches, from various materials and yarns in appropriate weaves. This concept of fabric was studied at later stages working up to the possibility of industrial production. New artistic and technological methods were explored for textile printing. Mat, lacquer, gold, and luminous prints were produced. It was not the task of the textile printing shop to imitate industrial products on a small scale or to vary their patterns, but to stimulate in the students an interest in creative work. How can an industrial designer create new patterns every day unless his ability and power to create have been awakened?

To deepen and control their perception the students had to look at, touch, and draw materials such as wood, bark, and fur until they were able to draw them by heart, without the originals, from their personal sensation (pages 40 and 44). Such a study of nature reproduction, from memory, of the objects observed and experienced is an interpretative, not an imitative procedure. Drawings produced in this manner appear instantly alive and convincing.

This work with texture also teaches the student to characterize as textures phenomena of the environment which, without these exercises, he would never have recognized as such. Various objects, regularly repeated, acquire the expression of textures. A railroad station, a crowd, a big city, or a market make a new kind of representation possible, as the illustrations on pages 48, 50, 51 and 52 show. Photography is an important medium which helps to expand the perception of nature. In a photomontage the motifs, kaleidoscope-like, produce new textures. Houses, bridges, roads, barrels of tar, machine parts encourage new combinations. Photomicrography opens up an unlimited number of new possibilities.

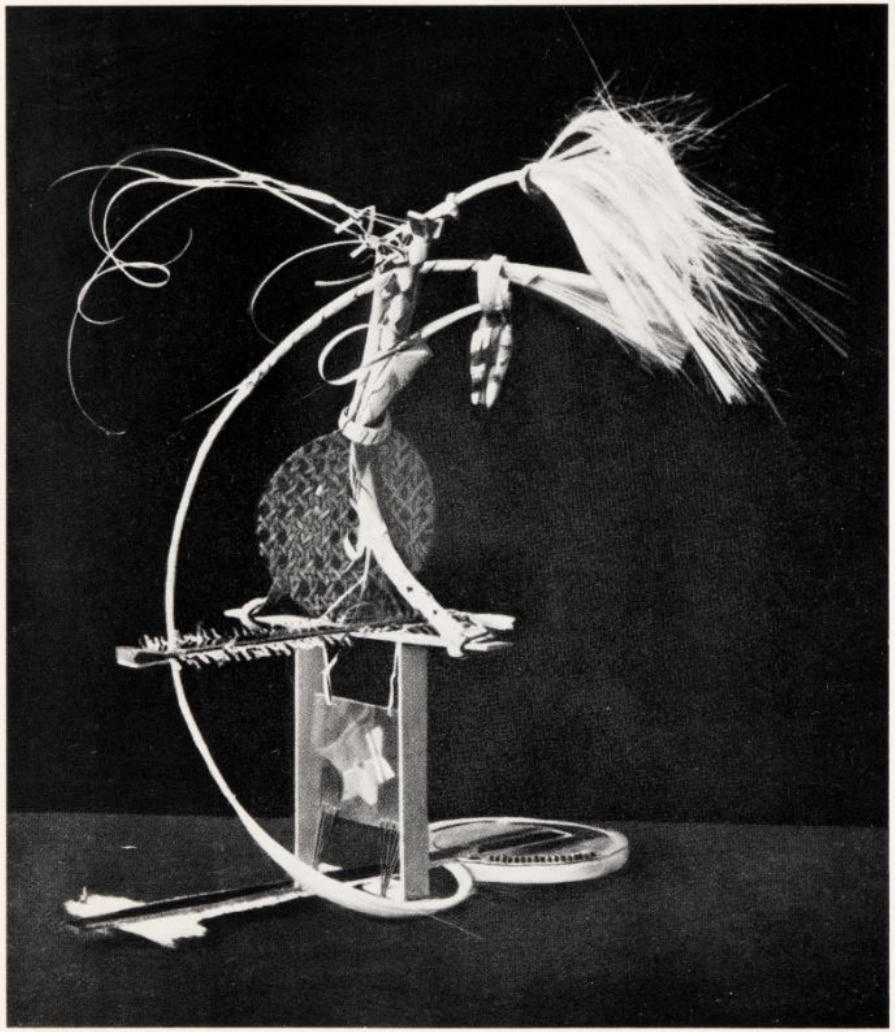
Montage of various materials. E. Bäumer, Berlin, 1927.



Contrast effects of various materials. Weimar, 1920.

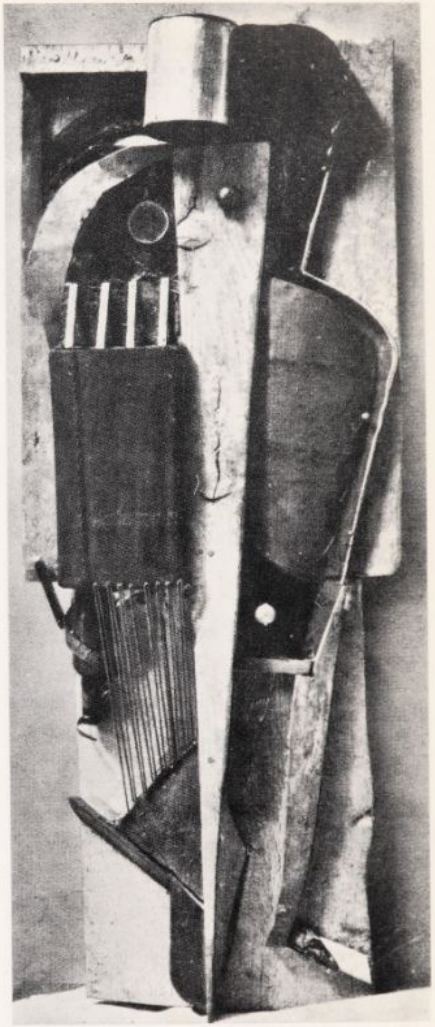
Textures interpreted by painting. M. Bronstein, Weimar, 1920.

Material montages and three-dimensional relief compositions based on the texture contrasts such as smooth-rough, dull-shiny, transparent-opaque develop the feeling for textures and their optical and tactile intensities. The reproduction of such textures by drawing and painting sharpens observation and enhances perception.



Spatial three-dimensional montage. M. Bronstein, Weimar, 1921.

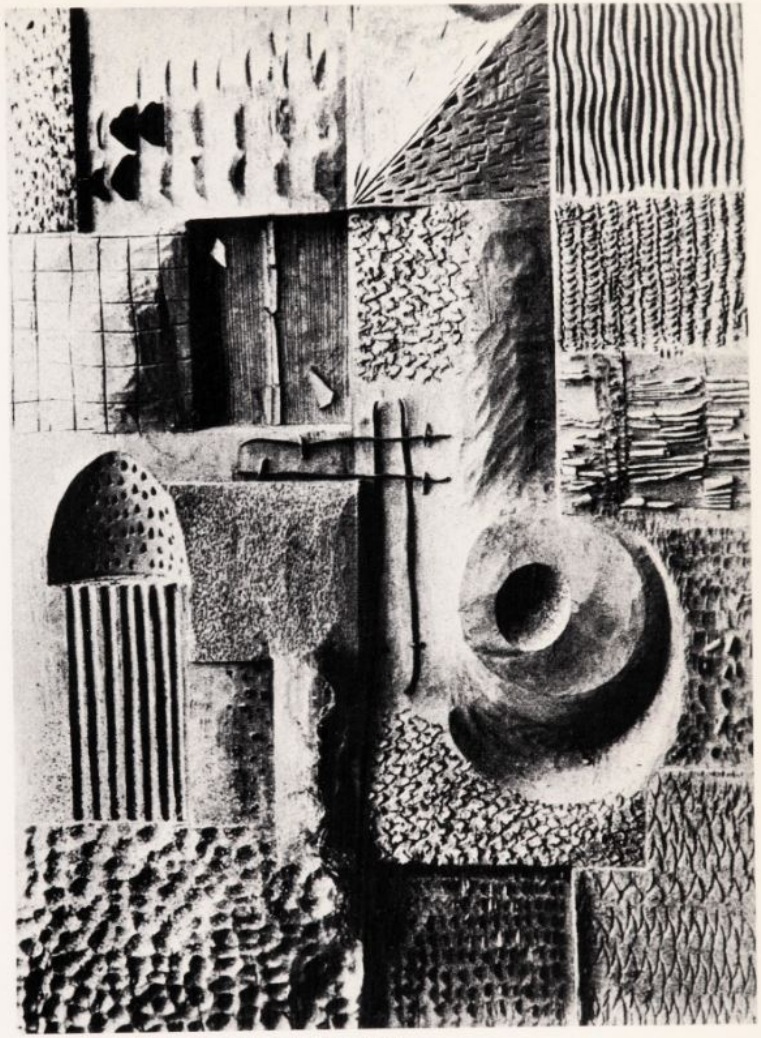
The spatial three-dimensional montage with its rhythmic and textured forms is held together by differentiated rhythmically tense movement. In the spatial study of different materials the main effect of the composition, height about 4 ft (120 cm), is concentrated in the formal contrasts: triangle, rectangle, circle, cylinder, point, and line. The differentiation of the effects of the forms by textures is only secondary.



Three-dimensional study. W. Herzger, Weimar, 1922.

Drawings of textures composed in square areas. E. Hasbach, Berlin, 1927.

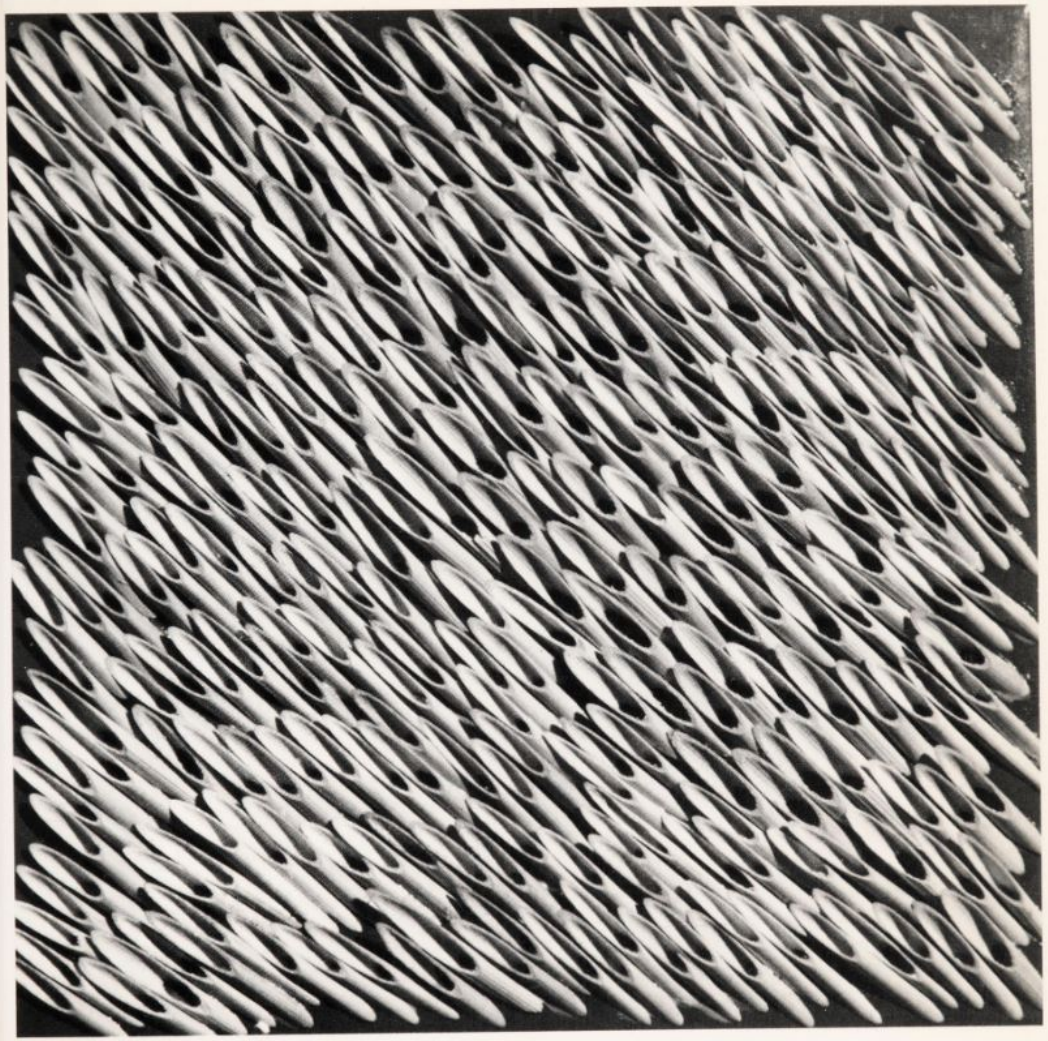
A future wood-sculptor was set the task of exploring the possibilities of his raw material and his tools. The apprentice had to carve textures out of a wooden board with various knives, without being hindered by the constraints of representational forms.



Textures carved in wood. H. Busse, Weimar, 1922.

A piece of wood, drawn from memory. L. Leudesdorff-Engstfeld, Weimar, 1922.

The reproduction by drawing and accurate rendering of materials such as wood, bark, glass, and fur sharpens observation and reveals the powers of perception. But such works acquire convincing and dynamic force only when they are drawn freely from memory and inspiration.



Montage of cut straws. J. Hansen, Krefeld 1934.

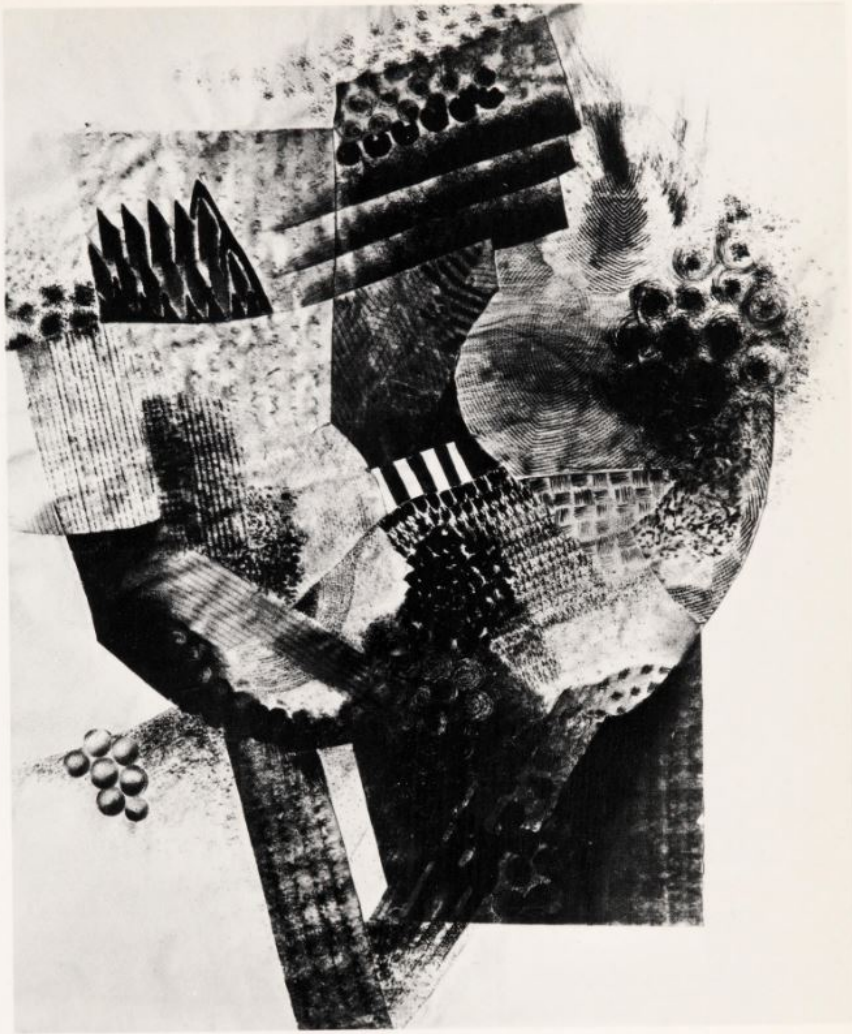
Texture drawn in Indian ink on damp paper. W. Menzel, Weimar, 1921.

New textures were invented with combs, brushes, strainers, oil, and glue; page 47 shows a composition of such textures. The studies of material also induced a search for rare textures in plants. The shiny, round corncobs in contrast with the dried, flat leaves, top and underside of a cabbage leaf, the seed head of a sunflower, and textured leaves and flowers were all studied.

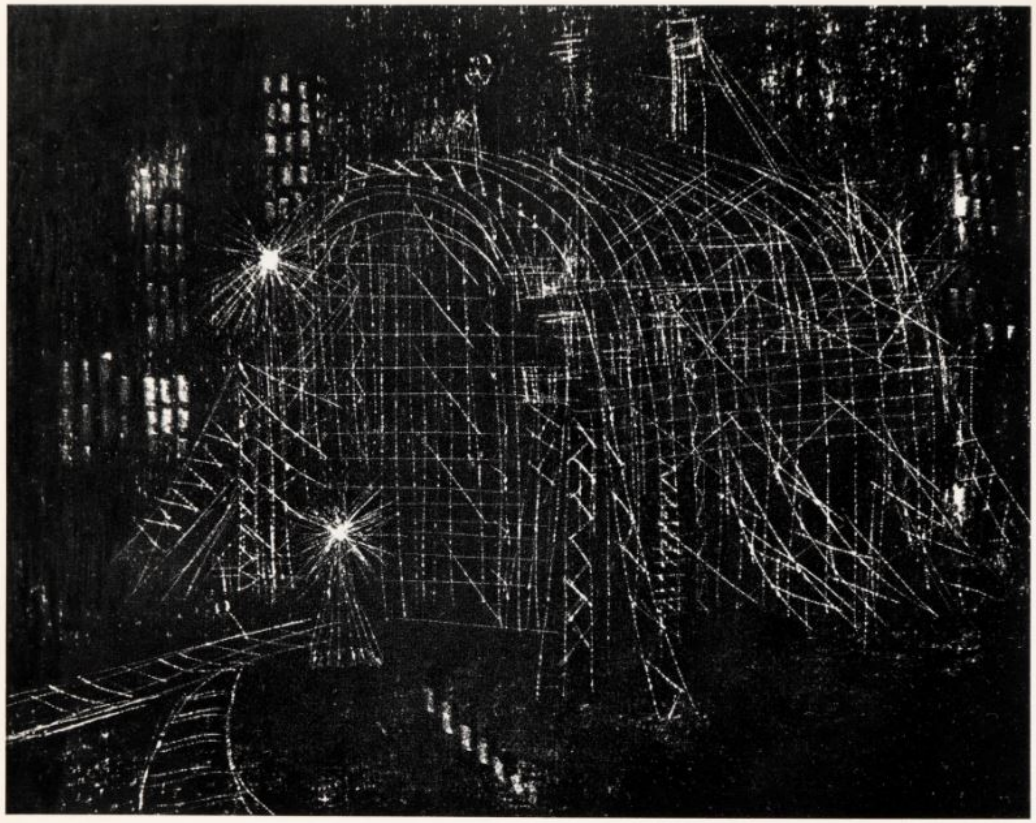
Flowering Elder. J. Bless, College of Textile Design, Zurich, 1956.

The sunlit light areas and the shaded dark blossoms of the translucent cluster contrast with the dark leaves and produce a differentiated texture and light–dark structure.

Study of a cabbage leaf. R. S. Schalt, Krefeld, 1933.



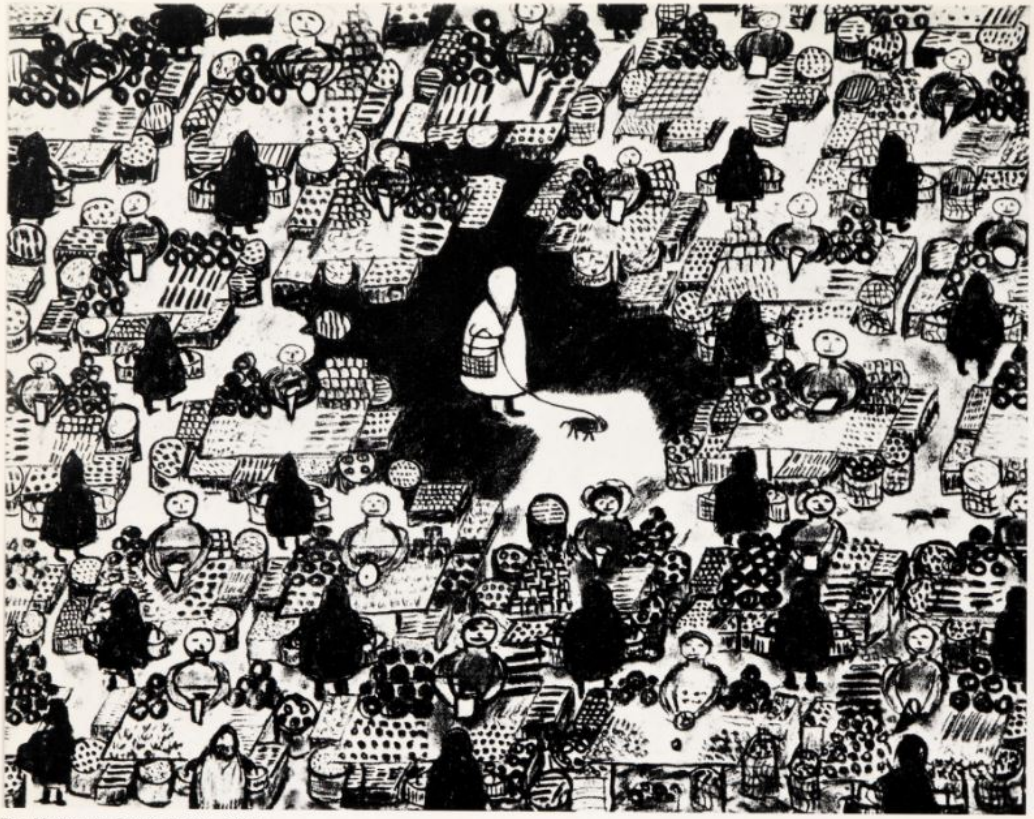
Composition of impressions of textures. A. Rehse, Berlin, 1928.



The Railroad Station. P. Citroen, Weimar, 1921.

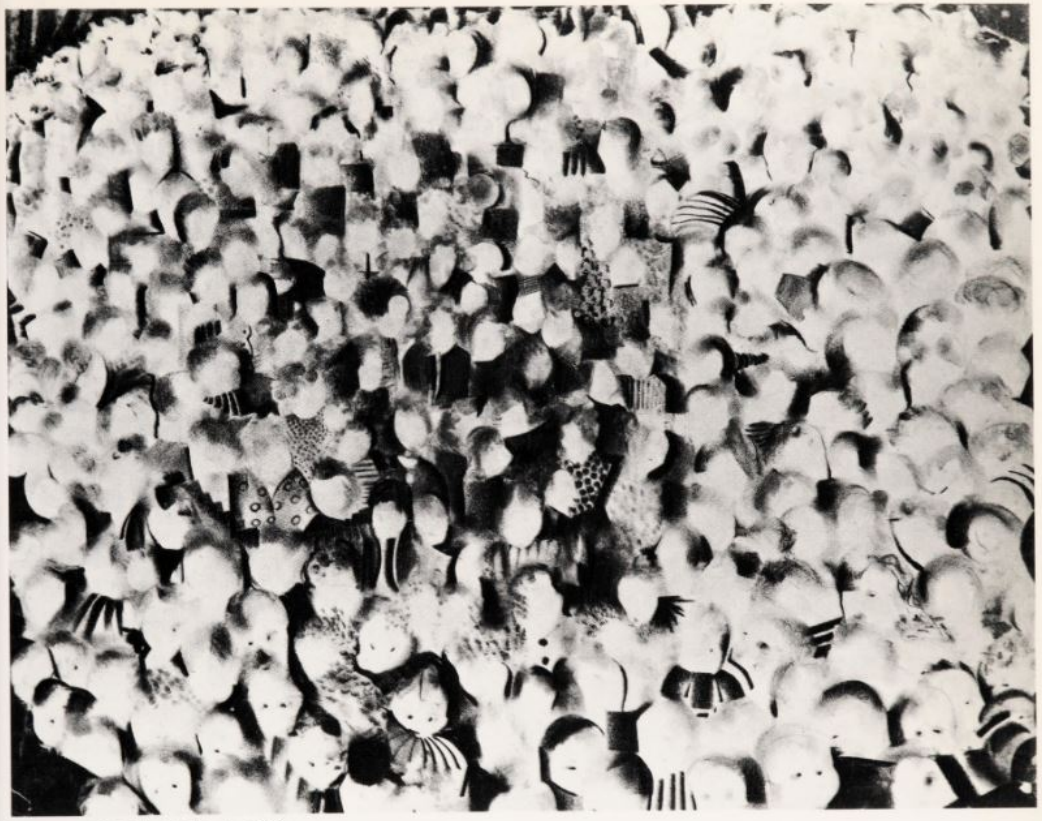
A profusion of black girders and soot-stained glass were typical of large railroad stations at this time. Both idea and technical representation perfectly express the essence of the subject.

Landscape with texture and form contrasts. G. Stölzl, Weimar, 1920.



The Market. H. Bleek, Berlin, 1931.

If a market is seen from an aircraft it resembles a texture. Without the aircraft inner concentration is necessary to realize such an aspect. Subjects of this kind were set as monthly exercises to stimulate the students to detach themselves from the natural subject, and search for and reproduce new formal relations.



The crowd. P. Schmidt, Berlin, 1928.

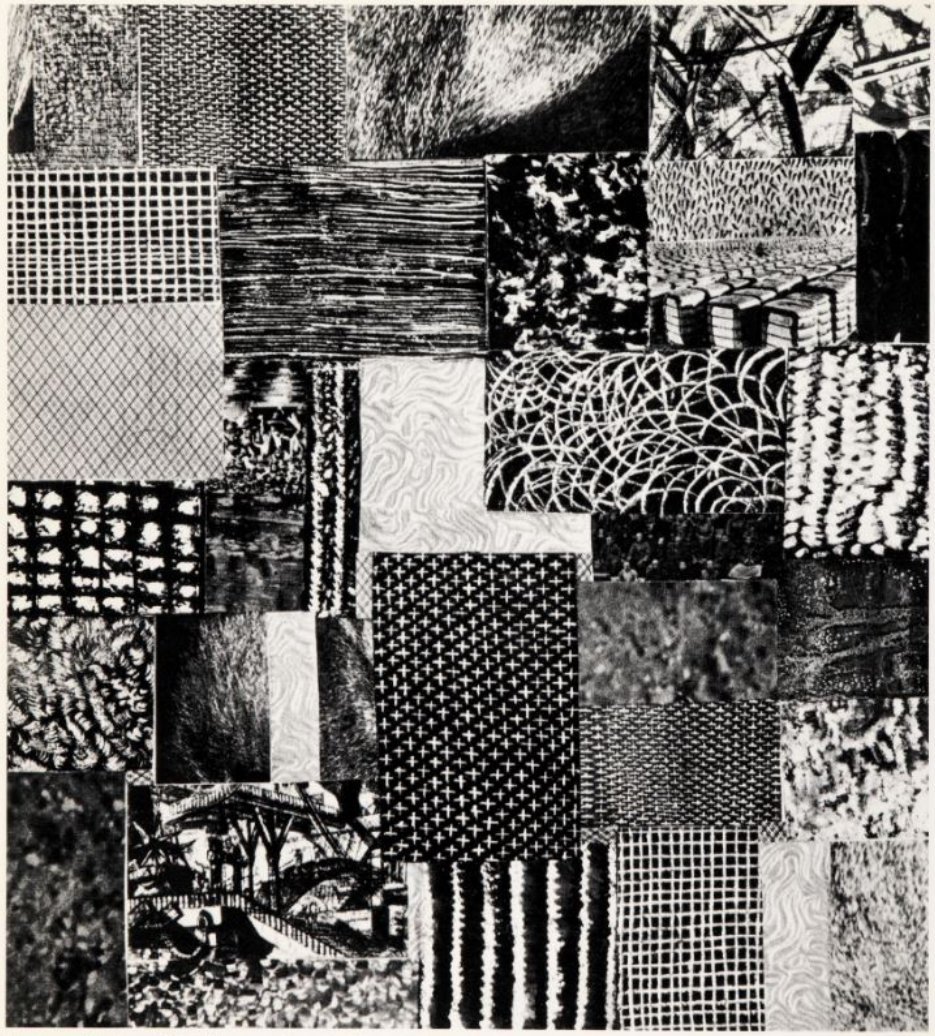
The task of the month, of reproducing a crowd, shows the usefulness of texture studies. Like the exercise on page 50, it was not painted from the photographer's viewpoint. The subject was presented in a regular formal character without any attempt at perspective. Such themes discourage the student from imitating nature, and he freely interprets the set theme.

Collage: The Big City. P. Citroen, Weimar, 1921.

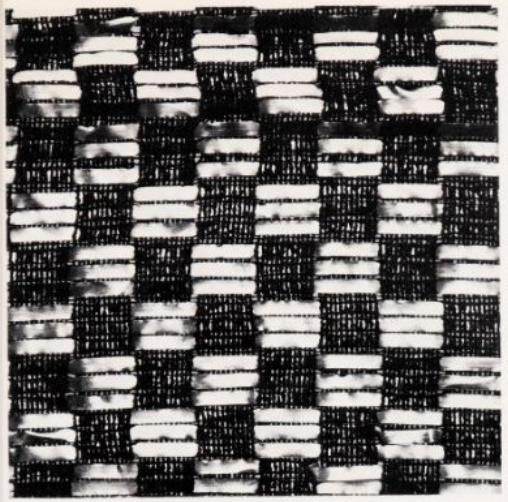
A chaotic tangle of a multitude of features, of verticals, horizontals, and diagonals, of rectangles, windows, bridges, passages and forms of all kinds gives the illusion of the endless confusion of a noisy city. The multitude of points of view and aspects produces a synthetic picture.

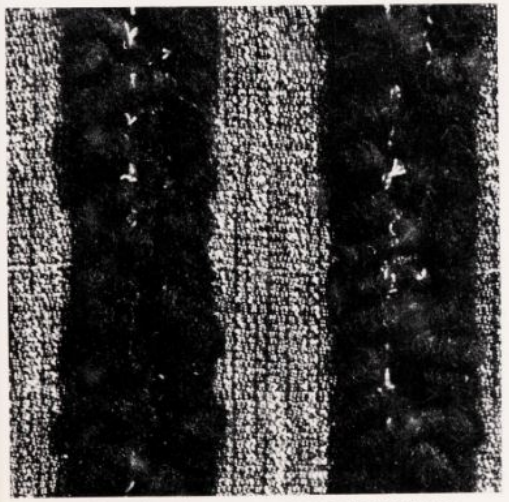
Big City and Fruit. W. Graeff, Berlin, 1930.

The opposite theme would be that of 'The Village'. The composition *Big City* and *Fruit* shows the contrast between the geometrical blocks of buildings and the round, three-dimensional fruit.

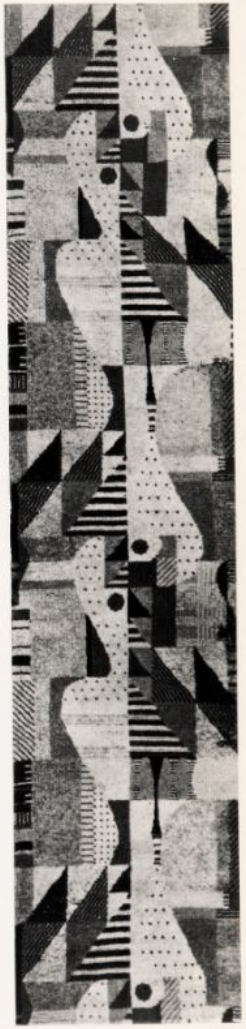


Montage of textures found in magazines. L. Müller, Berlin, 1932.

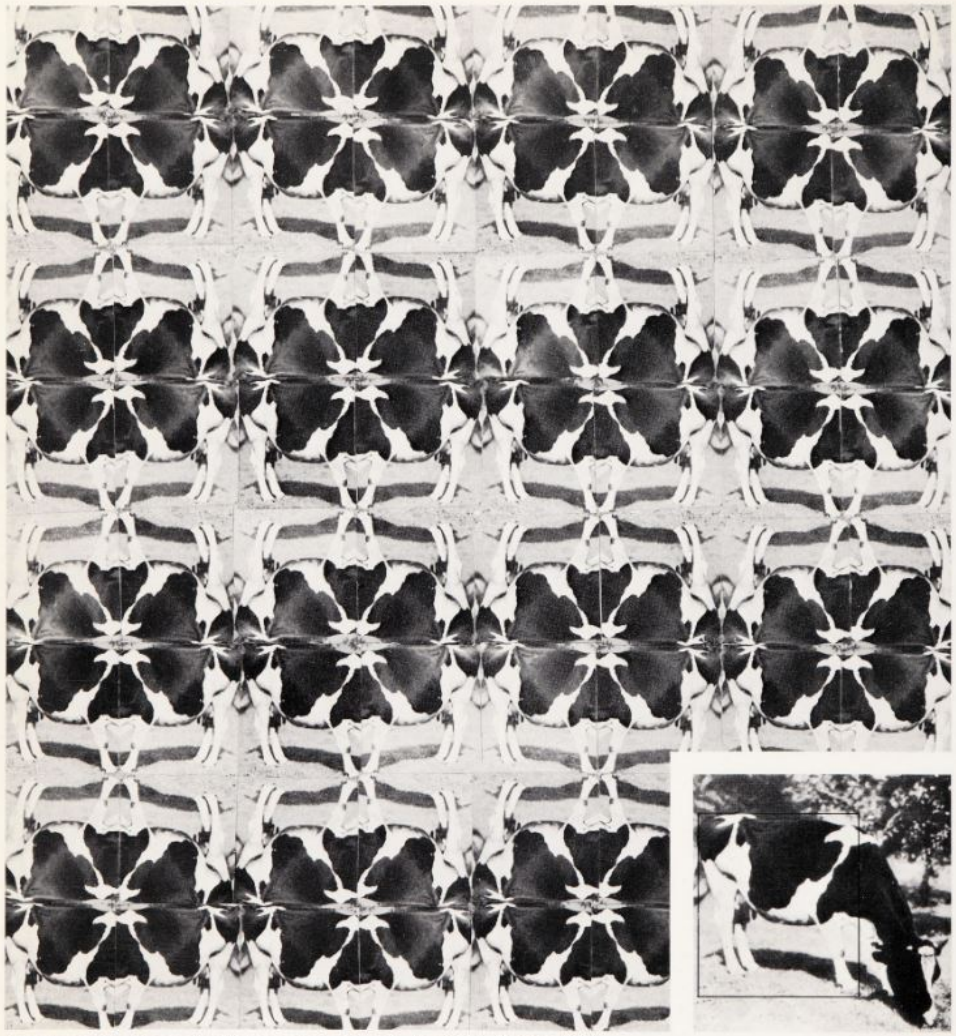




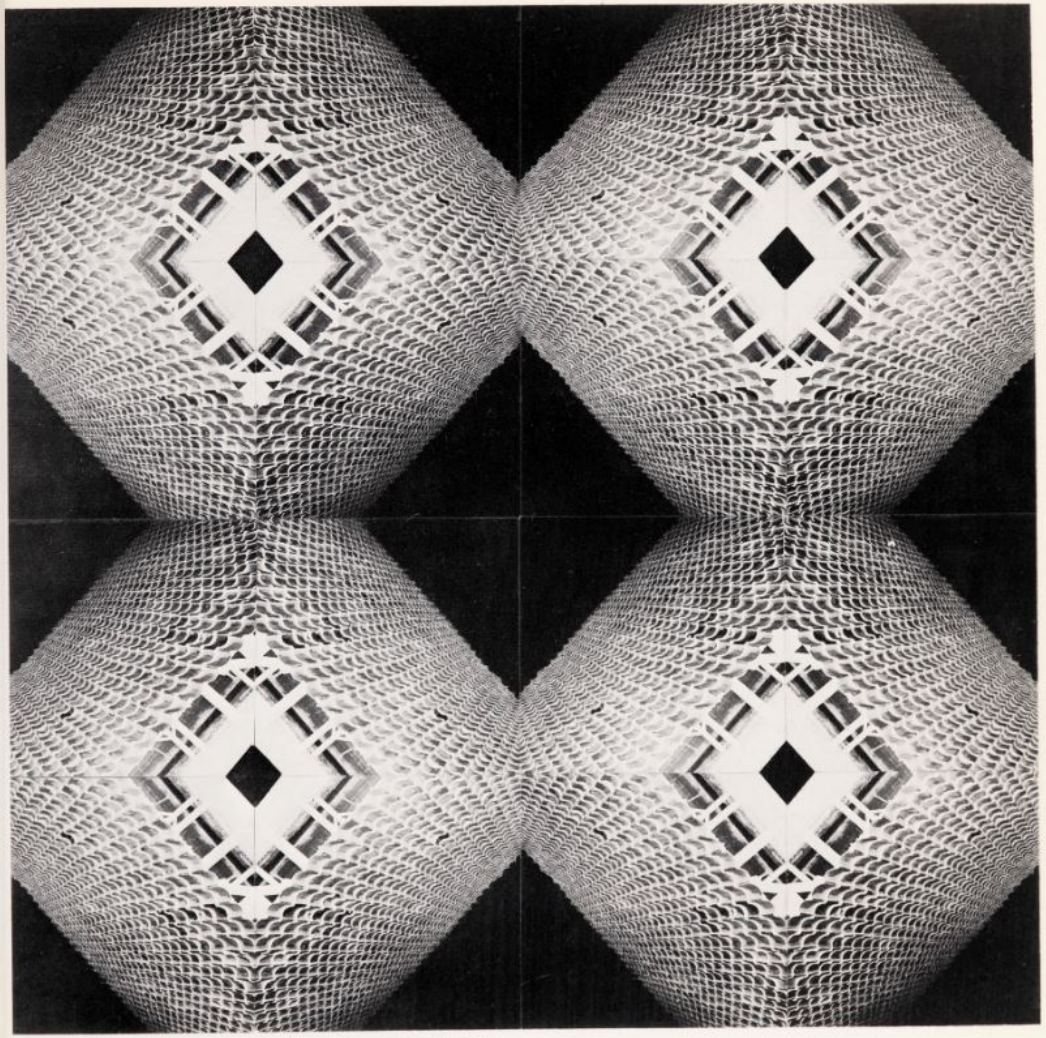
Fabric studies with various yarns woven on the handloom. Krefeld, 1935.



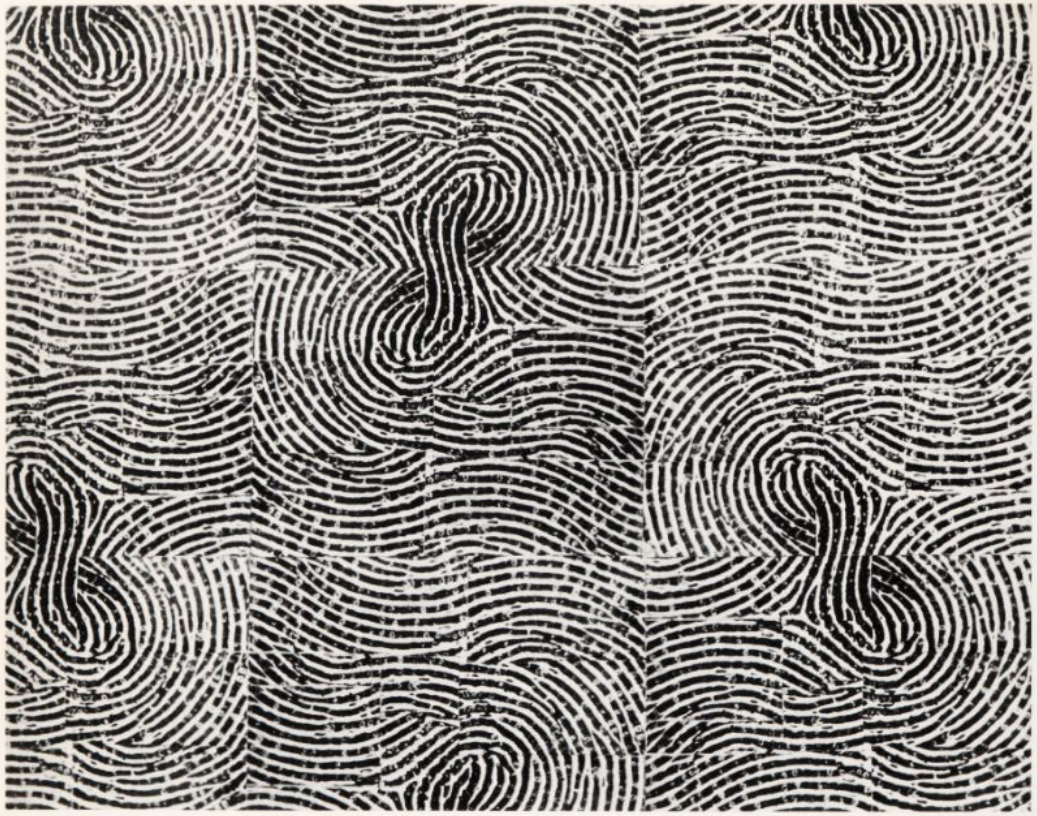
Handwoven runner. G. Stölzl, Weimar, 1923.



One of many montages of a photograph of a cow. L. Baumann, Krefeld, 1934.



Montage of a negative photograph of a roof truss. Krefeld, 1934.

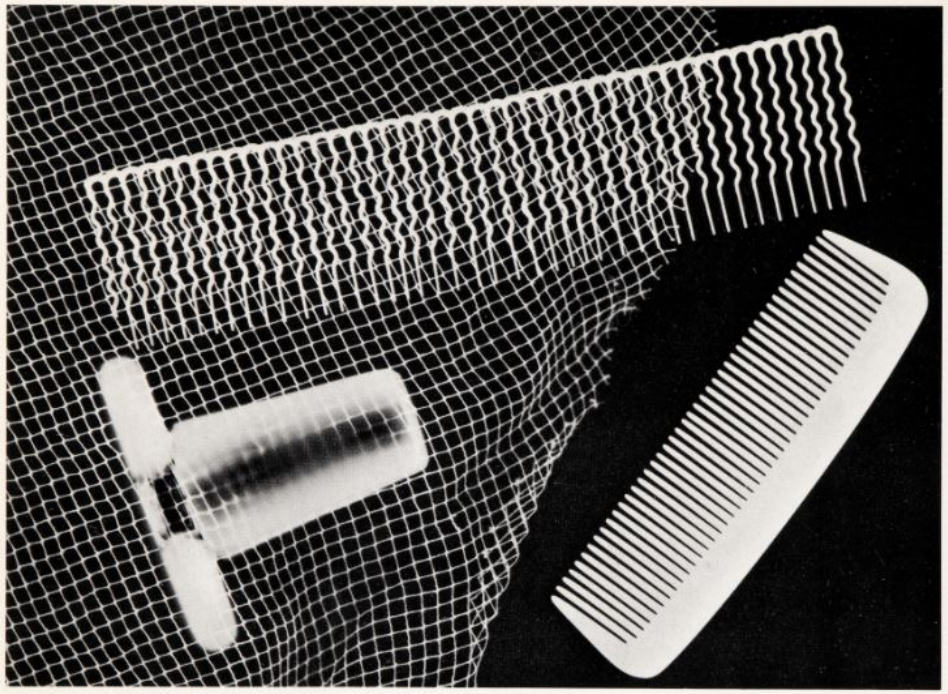


Montage of a photomicrograph of a fingerprint. O. Stocken, Krefeld, 1934.

A fingerprint inspired a textile designer to use it as a motif. Magnified and executed in gold print on silk, the motif was instantly recognizable. The challenge to develop this motif further resulted in the photomicrograph and its montage. With the repeat drawing necessary in textile technology new line relations were found; finally, an original pattern was successfully created in the form of a mat print on glossy silk.

Photomontage of various textures. H. Bruckner, Krefeld, 1937.

If collages of texture photographs or portions of representations of texture effect are mixed with freely invented textures, the eye will be trained to see in the abstract. Only when this stage has been reached can the artist truly compose textures.



Photogram composed with combs and showing a flair for texture and form. B. Spoerri, Berlin, 1930.

Tables and chairs. Berlin, 1929.

This photograph is one of the few pieces of work preserved from the Berlin photographic class. It is an example of the part of the course which dealt with documentary object studies.

The Theory and Practice of Forms

Exercises in composition of abstract forms serve in the improvement of thinking and at the same time the study of new means of representation. These exercises in the theory and practice of forms were not exercises in formalistic style as they are usually understood today.

The three basic forms, the square, the triangle, and the circle, are typified by the four different directions in space. The character of the square is horizontal and vertical, that of the triangle diagonal, and that of the circle circular. I sought first of all to convey these three characters of form to my students so that they truly experienced them. I asked them to stand up and perform a circular movement with their arms until finally the entire body was in a relaxed, swinging motion. This exercise was carried out first with the left, then with the right arm, then simultaneously with both arms, in the same and in opposite directions. Thus the students experienced the circle as an evenly curved, continuously moving line. Concentration on the circle as a form followed – it had to be intensely felt, without bodily movements reinforcing the imagination. Only then was the circle drawn on paper.

The experience of the square produces a tense movement from one corner to the next, caused by the constant repetition of right angles. In the triangle, the whole variety of angles is represented.

The derivations and possibilities of contrast residing in the characters of the forms were studied in series of exercises (page 64). To awaken an understanding of formal unity, compositions were created in the square, triangular, and circular characters (pages 66, 68, 70, and 75). Extensions of such exercises were based on combinations of two or three characters (pages 72, 76, and 77). Then followed the division of forms in the character of the square, the triangle, and the circle.

The problem of proportions was examined in lines, planes and volumes. Lines can be developed whose various sections are determined by ratios. The sequence of these ratios can be varied. Proportions of 1:2:4:8:16:32 or 1:3:9:27:81 can be represented. The golden section and the proportions of the harmonic triangle must be studied, and constructed and contrasted as lines planes or volumes. The student learns that effects can be achieved through contrasts in proportions which no longer correspond to the realities of the measurement. It is well known that a long form, when contrasted with a short one, can appear much longer than it really is. Such simultaneous changes in proportion can be judged only with perception; they impart to the proportion an unreal dynamism, which the artist aims at and takes advantage of in his work (page 78).

To bring vividly home to 8–10-year-olds the relativity of the effect of proportions, I set them the following task: 'Place your hands on a sheet of drawing paper and trace their outlines with a pencil. In addition to the hand, draw in natural size an apple, a plum, two cherries, two redcurrants and – on the hand – a fly.' The children found the correct proportions without difficulty, because they had already experienced them. 'Now draw me an elephant to go with the drawing!' In one voice the children replied that this was impossible, as the sheet of paper was much too small. 'Is it impossible to draw an elephant?' I asked. The children thought they must take a fresh sheet. They took it, and I continued with my instructions: 'Draw an old, huge elephant – add a young elephant, and the keeper – he holds his hand out to the elephant – an apple is lying on the hand – and a fly sitting on the apple!' 'But this is not possible either' cried the children. 'Well, draw another elephant, and try to draw it so that it appears very large and draw a small keeper with it. Can you see that the smallness of the keeper makes the elephant appear larger?'

Exercises in variation and combination, too, serve to extend thinking. Four matches can become a dynamic experience to students. These little sticks ending in round heads are a source of a very large number of new figure constellations through horizontal, vertical, or diagonal shifts, rotations, reflections and glide reflections, inversions, intersections, changes in proportion, in brightness, in darkness, and in color, as well as of combinations of these variations.

To produce a work of art, creative imagination should have many possibilities to draw on. To find the simplest and clearest form, the thinking, in terms of variations and combinations, must be developed by means of exercises.

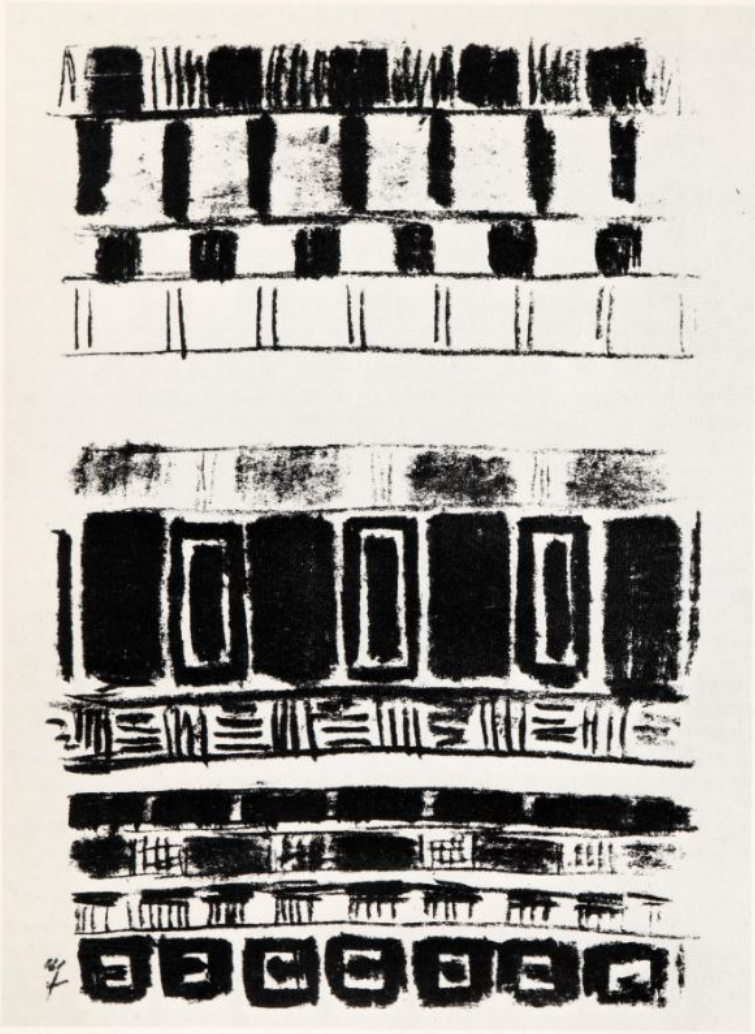
The illustrations on pages 80 and 81 show variations and combinations of a line motif built up of circular, square, and triangular elements.

If an area is to be divided formally, there is an unlimited number of possibilities for doing it. In the chess board, the perfect composition of a plane, the area is divided by a single, repetitive form. Both the black and the white squares are reductions of the form of the whole chess board. Other shapes which can be used to divide an area completely are the rectangle, the rhombus, the triangle, and the equilateral hexagon. Starting from one of these basic divisions one can find a large number of other forms. The positive–negative congruent forms are the most precise means of dividing an area. Knowledge of them strengthens and deepens the students' logical thinking in terms of form.

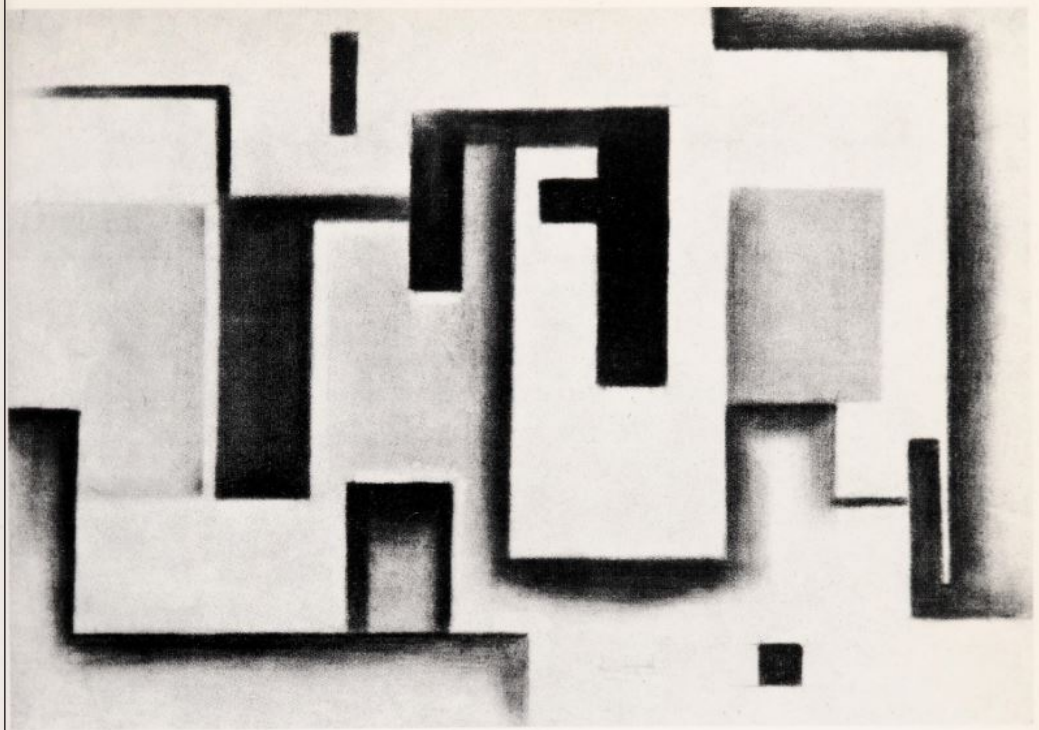
The study of three-dimensional forms and their representation is of great importance. I first asked the students to model spheres, cubes, pyramids, cones, and cylinders in clay, so that they could feel the elementary geometrical forms in their three dimensions. This was followed by the modeling of compositions in a single form character. Such a composition is illustrated on page 84, a workshop model of a building rendered in sandstone in the character of the cube is found on page 85, and similar models in the circular character on page 86. Finally, I asked for compositions with two or three form characters. Only after such modeling exercises were the three-dimensional, geometrical forms reproduced imitatively, graphically, in light and shade. Following this, the three-dimensional forms were reproduced two-dimensionally as pictures. The natural three-dimensional effect is dematerialized, and replaced by the picture plane. If the illusion of spatial depth is to be maintained without destruction of the picture plane, the careful use of diagonals, intersections, and light–dark tones is essential. The pictorial analysis on page 89 shows attempts to solve such problems of space in the picture.

Proper distribution of the accents in a composition largely decides the pictorial effect. This applies not only to the fine arts, but also to ballet, music, and poetry. The points of accent set up the tension between forces in a picture and guide the viewer's eye. His glance moves from accent to accent, and he perceives distances thereby and experiences simultaneous line connections. These lines offer visual paths, which in turn envelop form-figures, whose dimensional relations must be studied (page 90). Every form has its specific points of accent. All such points situated on the axes or diagonals of a form are effective points. When one of them dominates, the viewer's eye will dwell on it longer than on the weaker secondary points; the eye will again and again return to the main accent. A main accent leads the viewer to the profound stillness of gazing, whereas several points of equal strength call for the attention of the eye to move between them, thus creating an experience of movement. It is also possible to analyze accent points or accent points and lines from nature (pages 91 and 92). A problem I can only mention in passing here is that of pictorial construction. The geometrical, structural organization of the picture plane connects points of accent and reinforces the structure of the picture.

Pictorial constructions should be developed from the first picture sketches. They serve to find the final picture format and help with the constructive arrangement in the picture plane of the initially random features of the first sketch.

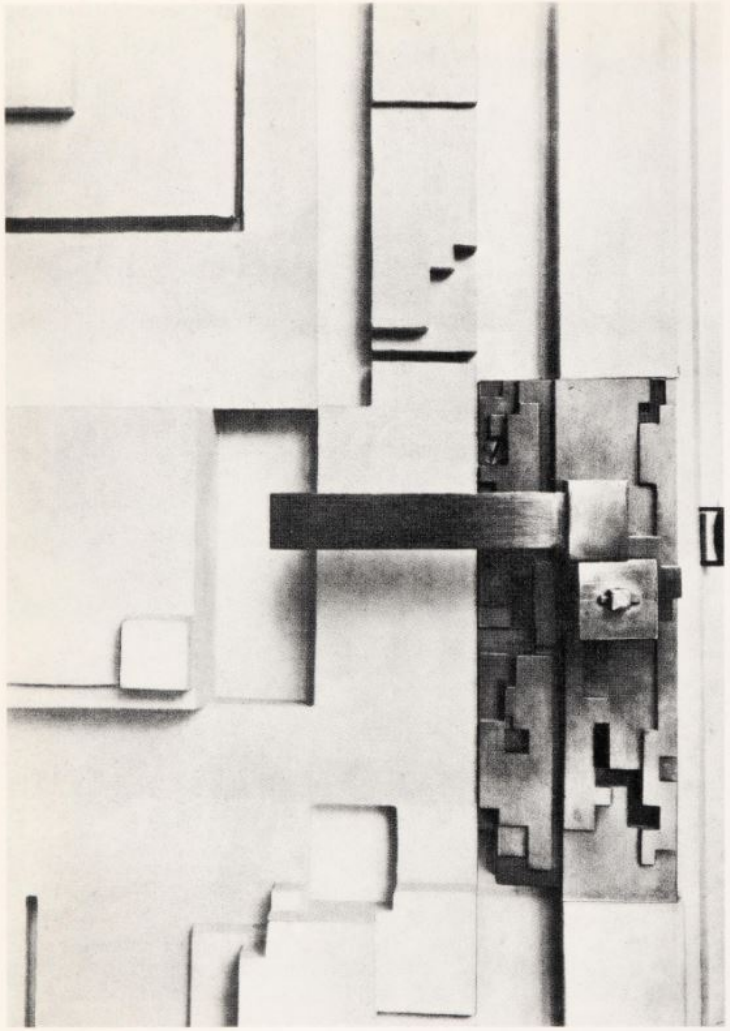


Exercise in the form character of a square. M. Pfeiffer-Wotenphul, Weimar, 1920.



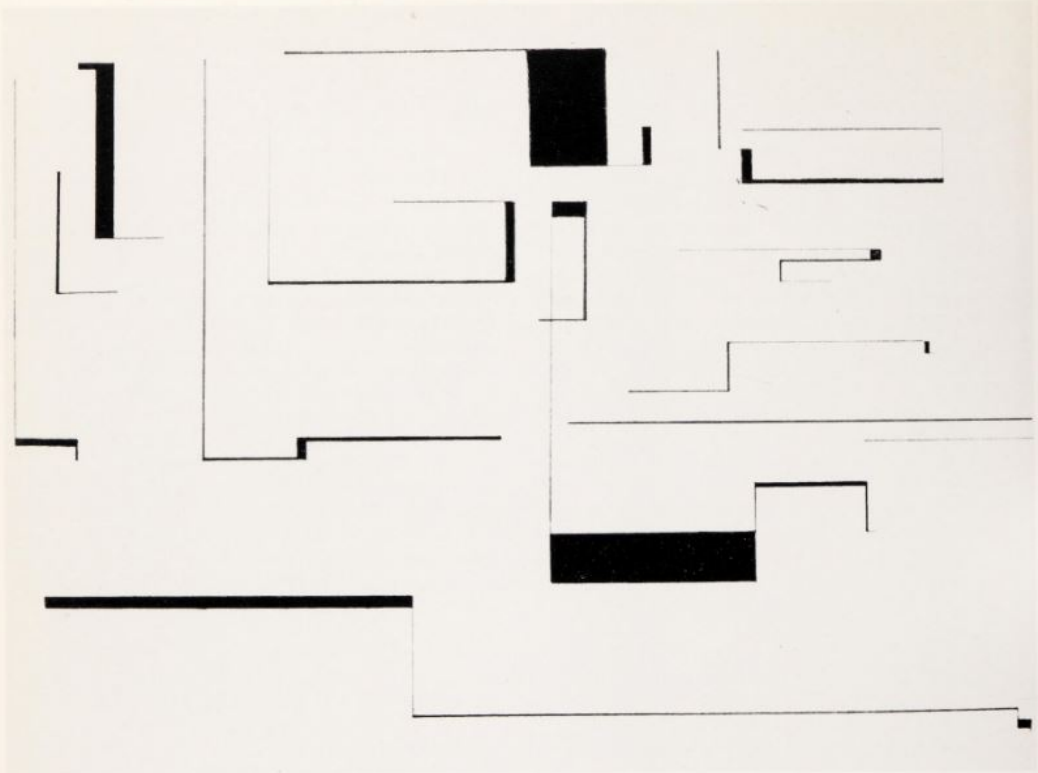
Square-form composition with relief effect. C. Teltscher, Weimar, 1921.

Page 66 shows a wood relief of a door with a nickel-plated handle, developed from the square and cubic character. Together with a team of students I wanted to design a room in a unified form character.



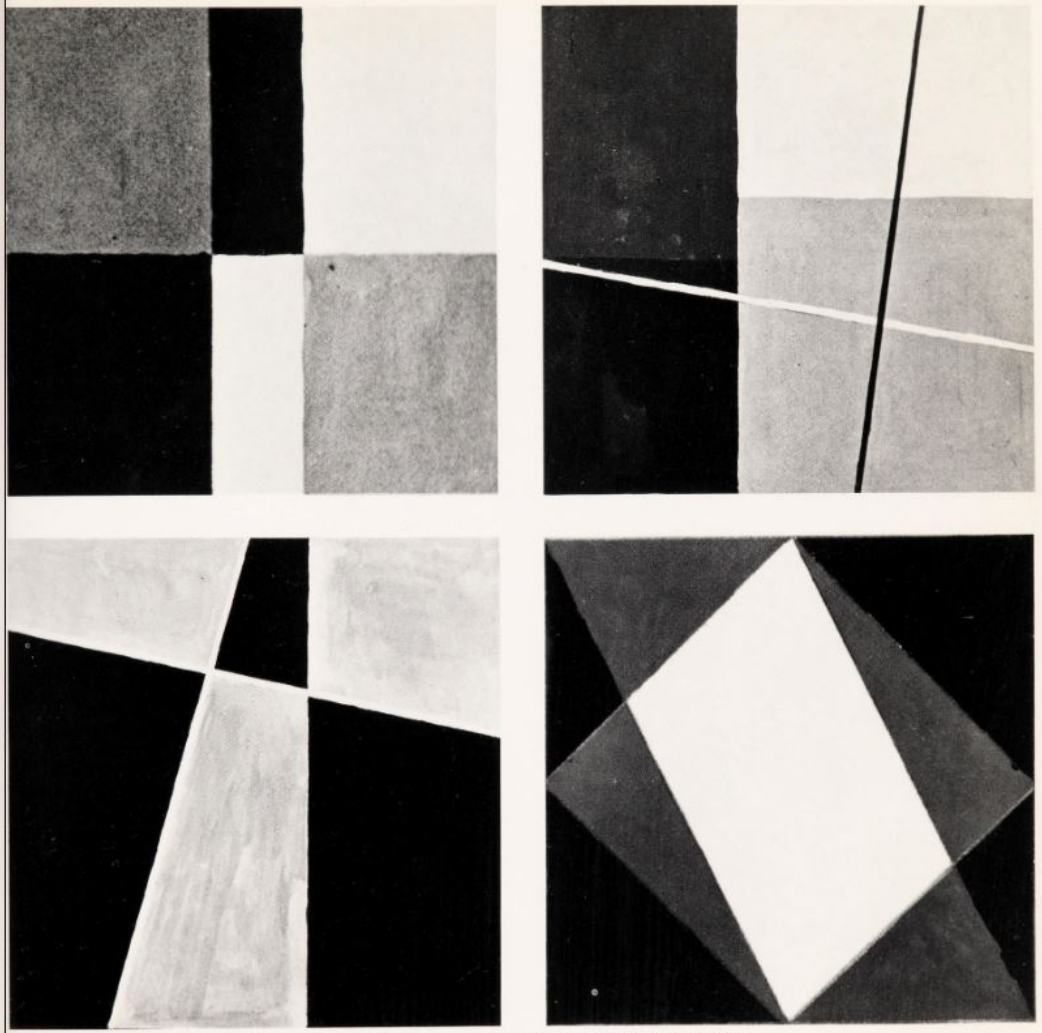
Door with wood relief. Metalwork of the door lock. N. Slutzky, Weimar, 1921.

Embroidered silk cloth in the square-form character. Weimar, 1920.

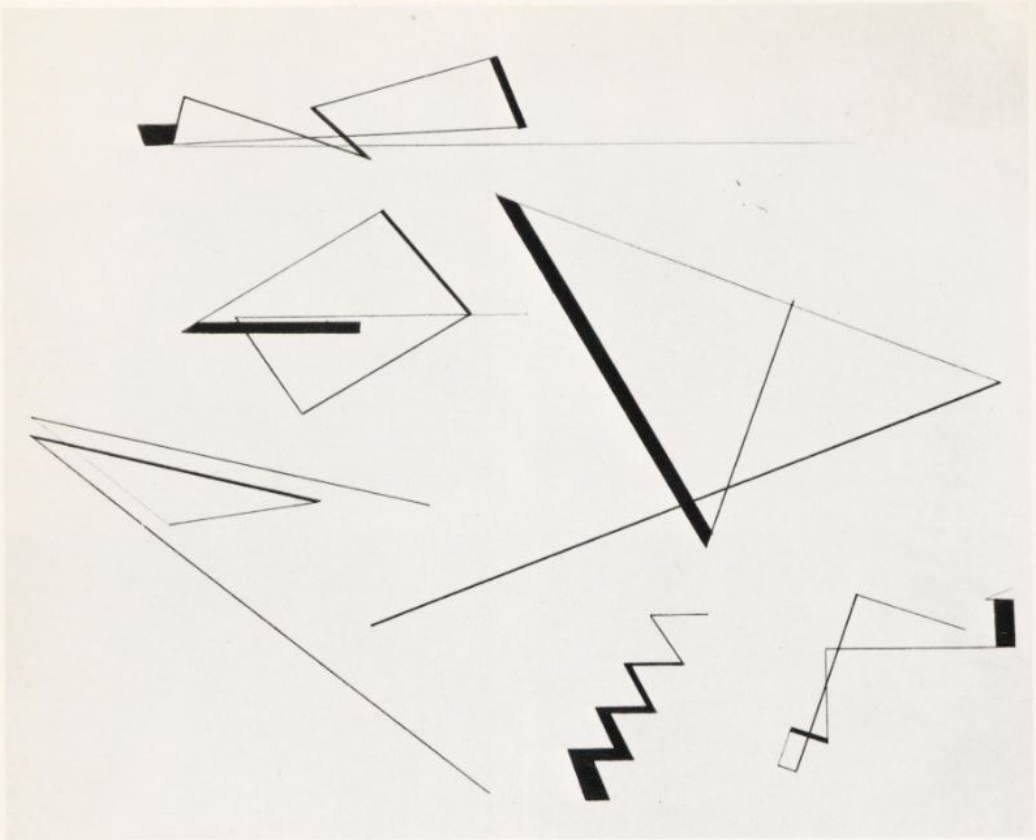


Exercises in line studies. M. Debus, Berlin, 1928.

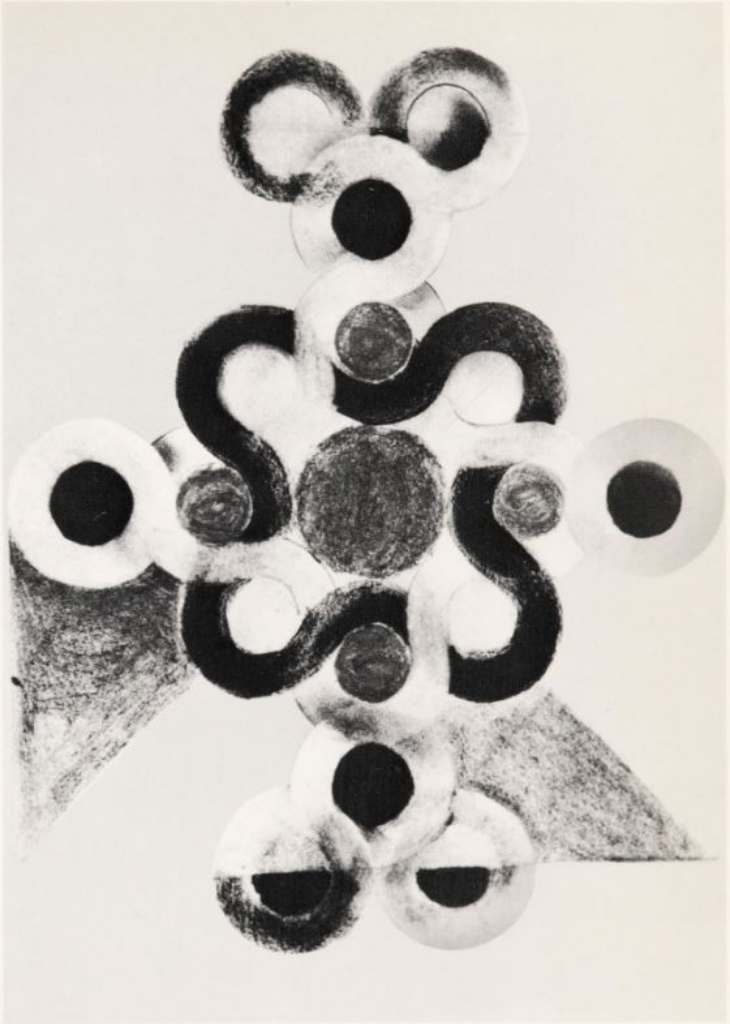
The various line exercises in a square character use the contrasts horizontal–vertical, long–short, and broad–narrow. Corresponding exercises were carried out with area compositions in the contrasts light–dark, large–small, and broad–narrow. To create the feeling for the regularity of a form character, I set exercises in which writing and formal representation were developed in the character of the square, the triangle, or the circle.



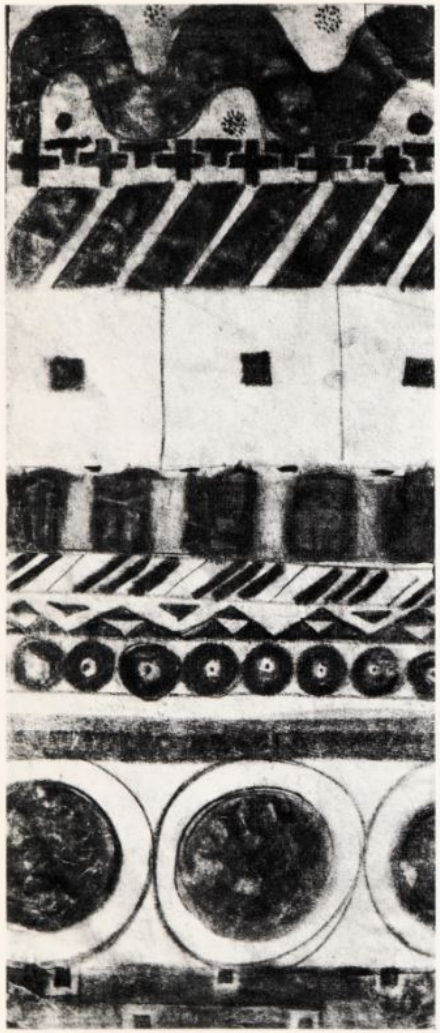
Divisions of a square: horizontal, vertical, and diagonal. College of Arts and Crafts, Zürich, 1942.



Exercise of line compositions in the character of a triangle. M. Debus, Berlin, 1928.

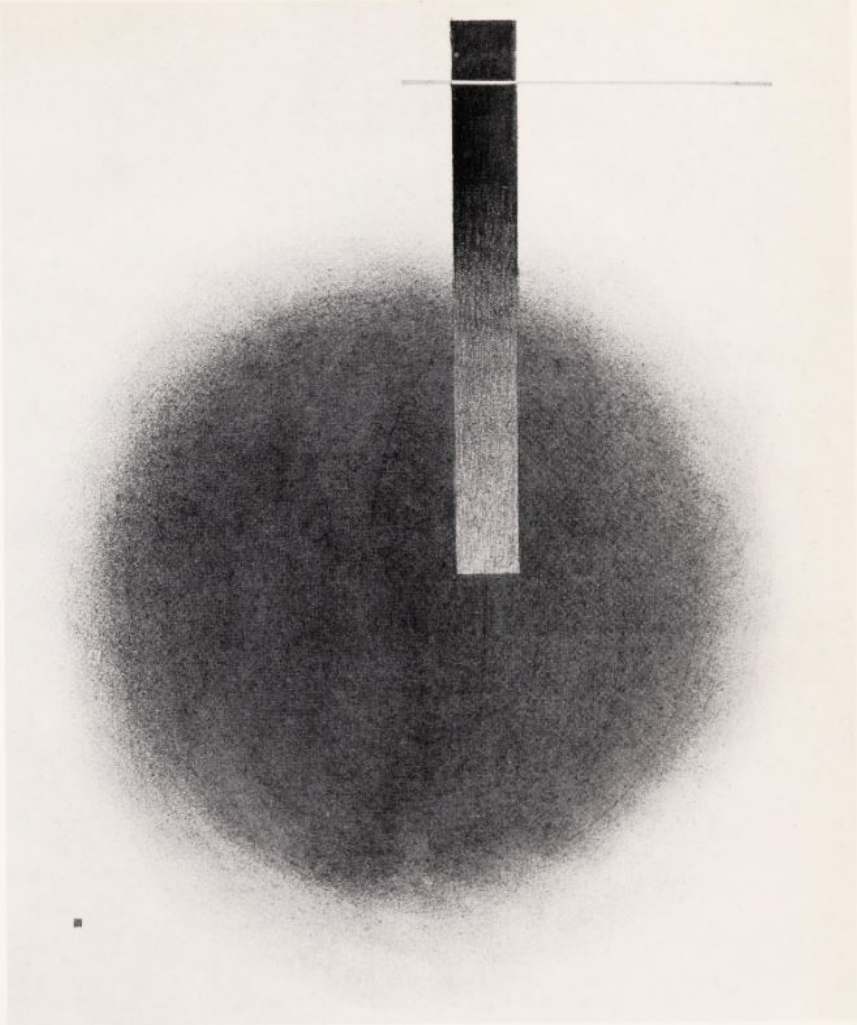


Study in the character of the circle. Weimar, 1920.

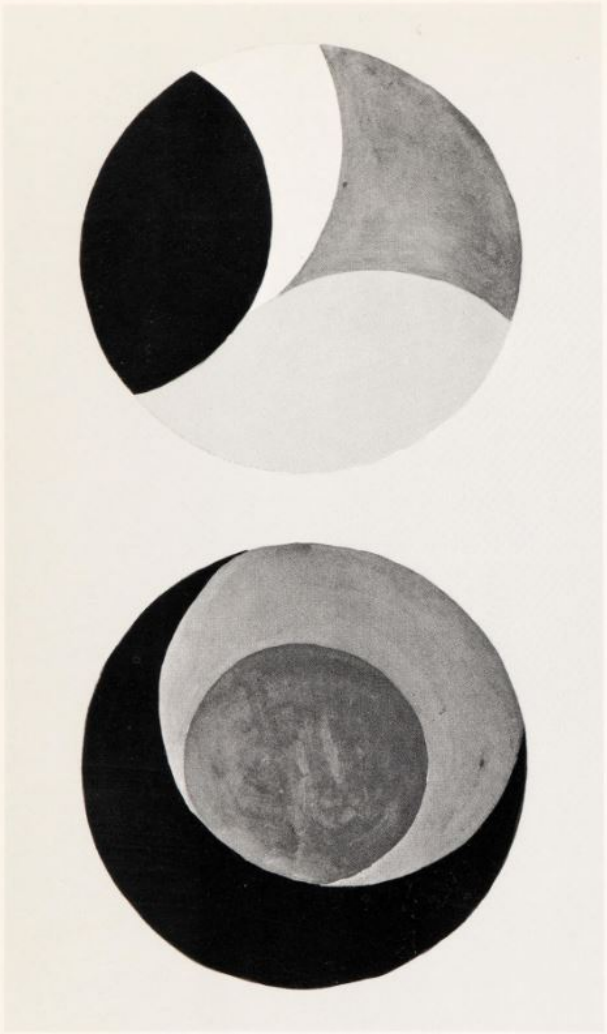


Various form characters. F. Dicker, Weimar, 1919.

When two or more form characters or contrasts are used in a composition, a strong feeling for form is essential to arrange the forces of the various forms as a balanced entity.

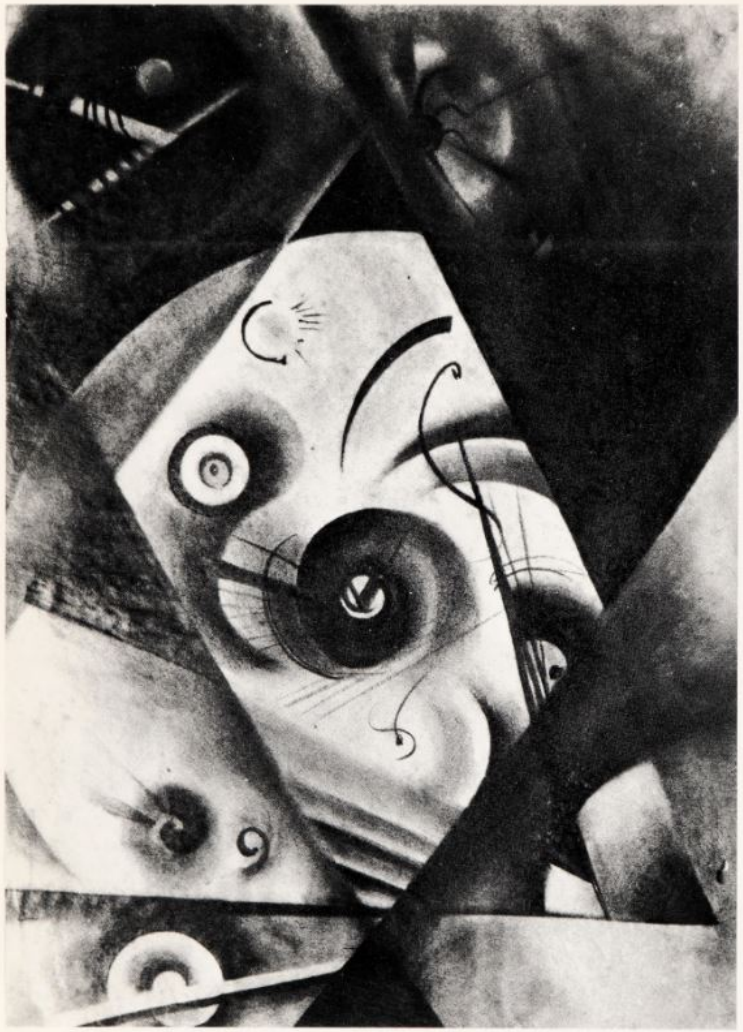


Composition of various form contrasts. Weimar, 1920.

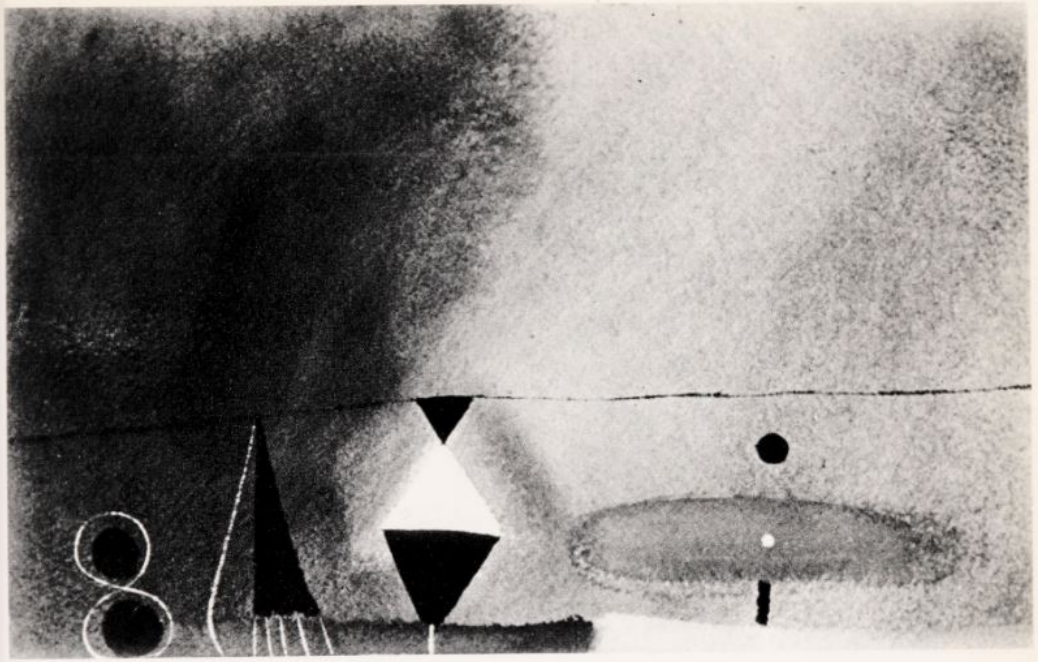


Divisions of a circle. College of Arts and Crafts, Zürich, 1942.

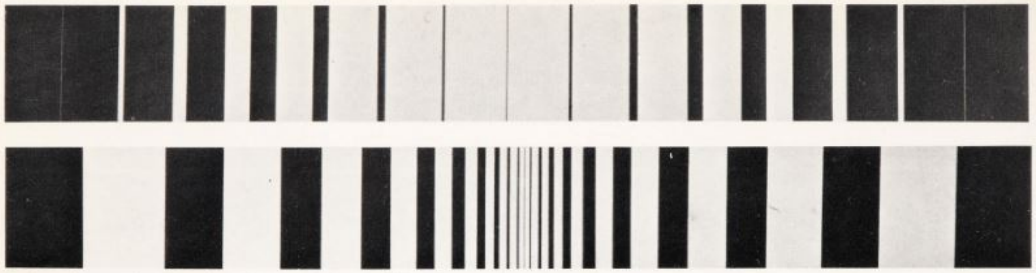
Figure in circular character. H. Bornemann. Berlin, 1929.



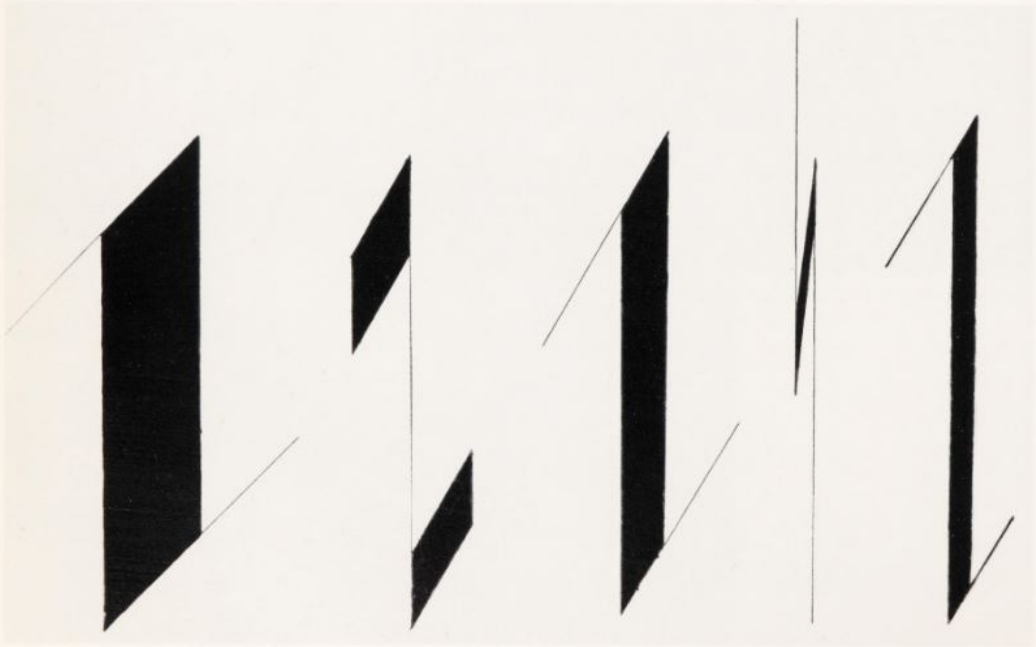
Form and light-dark study. F. Dicker, Weimar, 1920.



Composition in light–dark, proportion and form contrast. C. Auböck, Weimar, 1920.

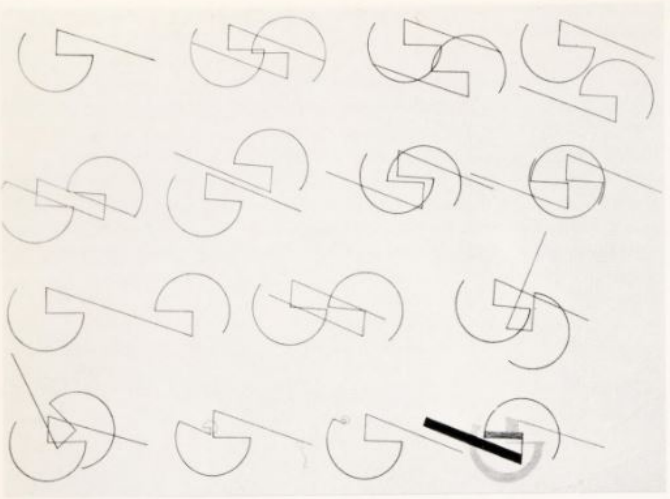


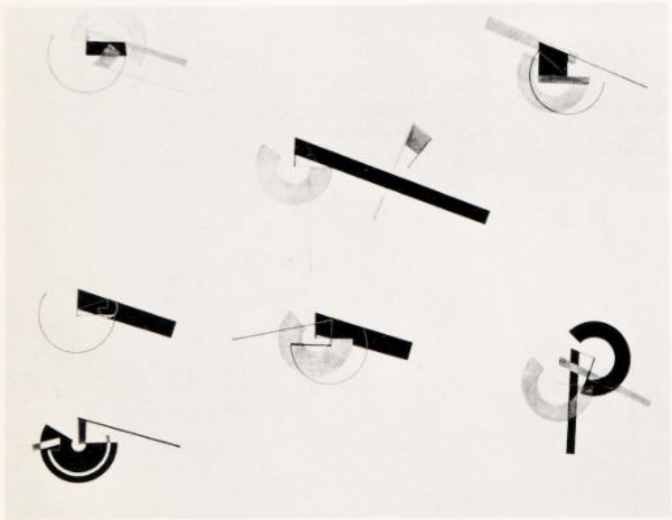
Scales of proportion from broad to narrow in parallel and opposite progressions.



Vertical and parallel lines as contrasts in proportion. M. Debus, Berlin, 1928.

Proportion study drawn from nature. E. Bäumer, Berlin, 1928.

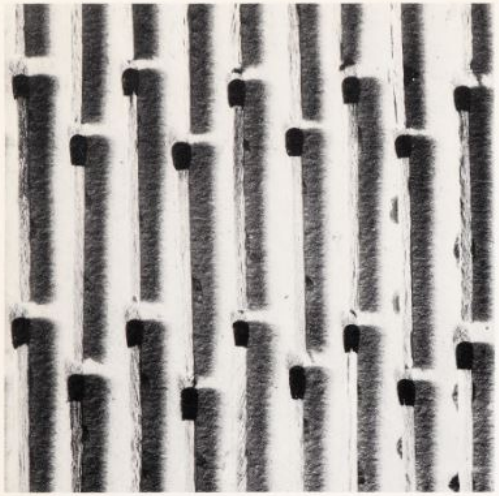




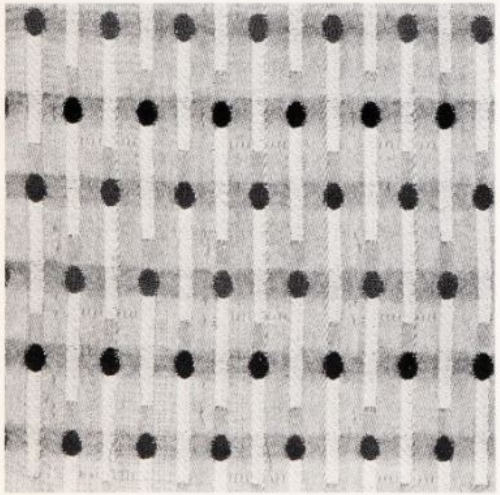
Combinations and variations of a line subject. F. Windscheif, Berlin, 1932.

The line motif is constructed of circular, square, and triangular elements. Two such lines are combined in inversion, in narrow and broad disposition, in opposed movement and intersection. The large–small, broad–narrow, and light–dark contrasts are added as variation.

The motif of page 80 in free composition. F. Windscheif, Berlin, 1932.

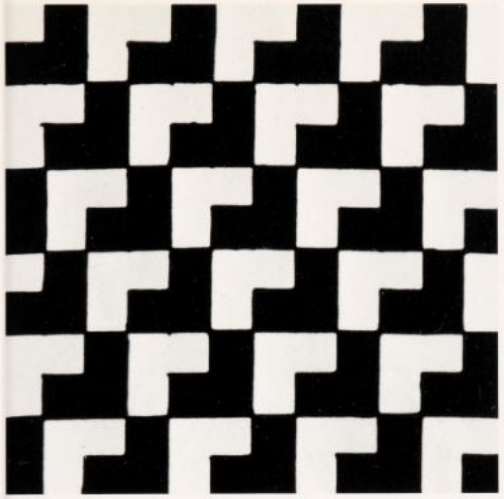


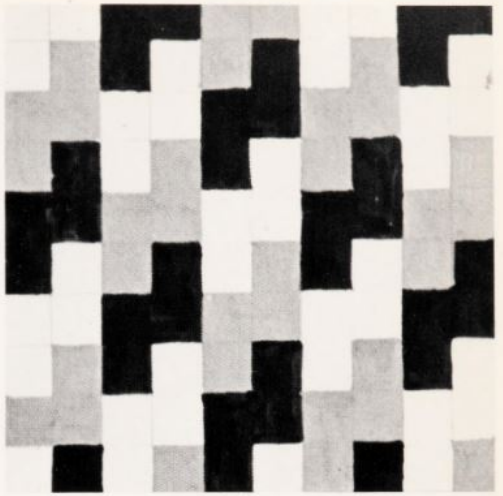
Four match sticks can produce numerous new forms by various combinations, rotation, reflection and overlapping.



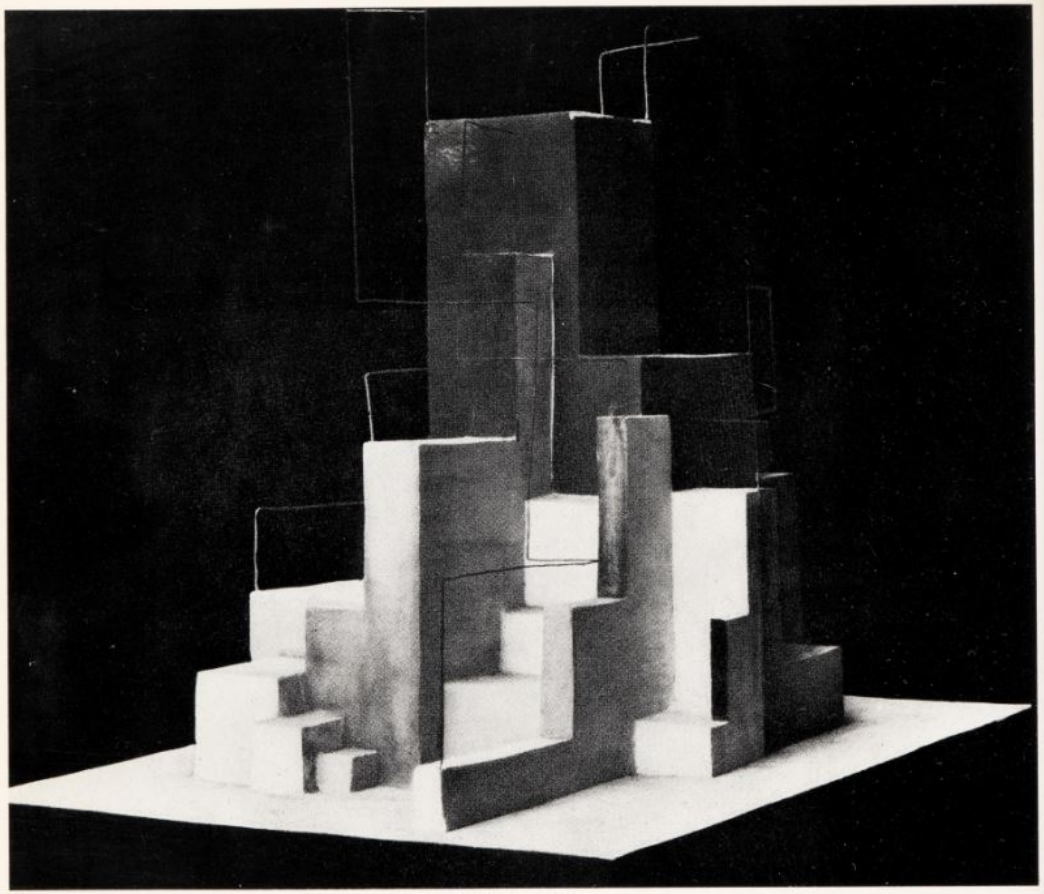
Square, rectangle, rhombus, triangle and hexagon with equal sides can divide a plane without any blank spaces. These basic forms may be changed by adding and simultaneously taking away sections. Positive-negative forms were already used as ornamentation in antiquity and for the textile designer they open up a wide field of new forms which may varied even more by the distribution of color.

Matchstick montage and woven fabric, Krefeld, 1934.





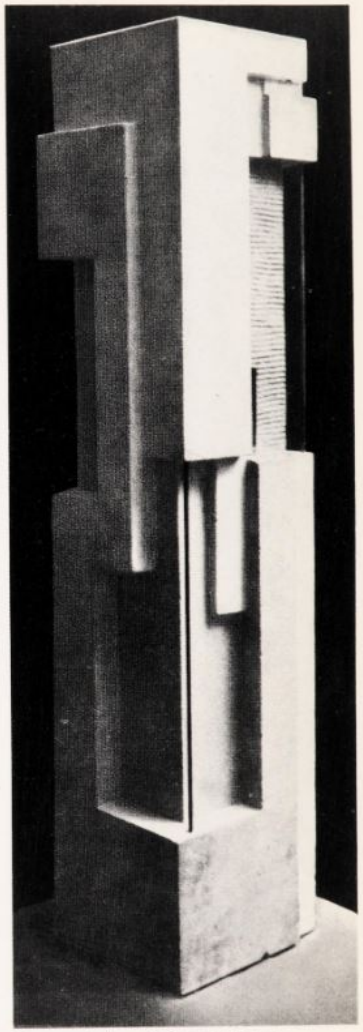
Positive-negative forms as examples of textile designs, woven and printed fabric. Krefeld, 1934.



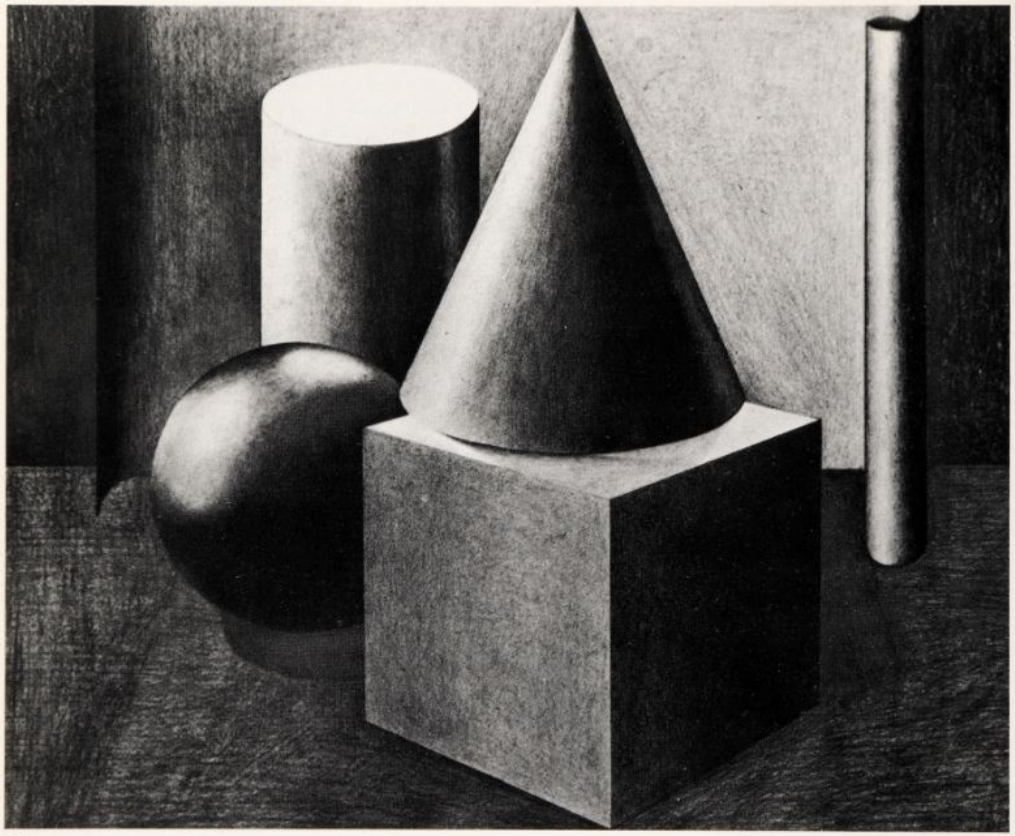
Three-dimensional study in the cubic character. G. Schunke, Weimar, 1921.

To create a three-dimensional experience of the elementary geometrical forms I had models made of spheres, cylinders, cones, and cubes. The study in the cubic character is not an architect's model. Colors were applied to some areas, to study how their use reduced or enhanced the three-dimensional effect. The wires represent glass walls.

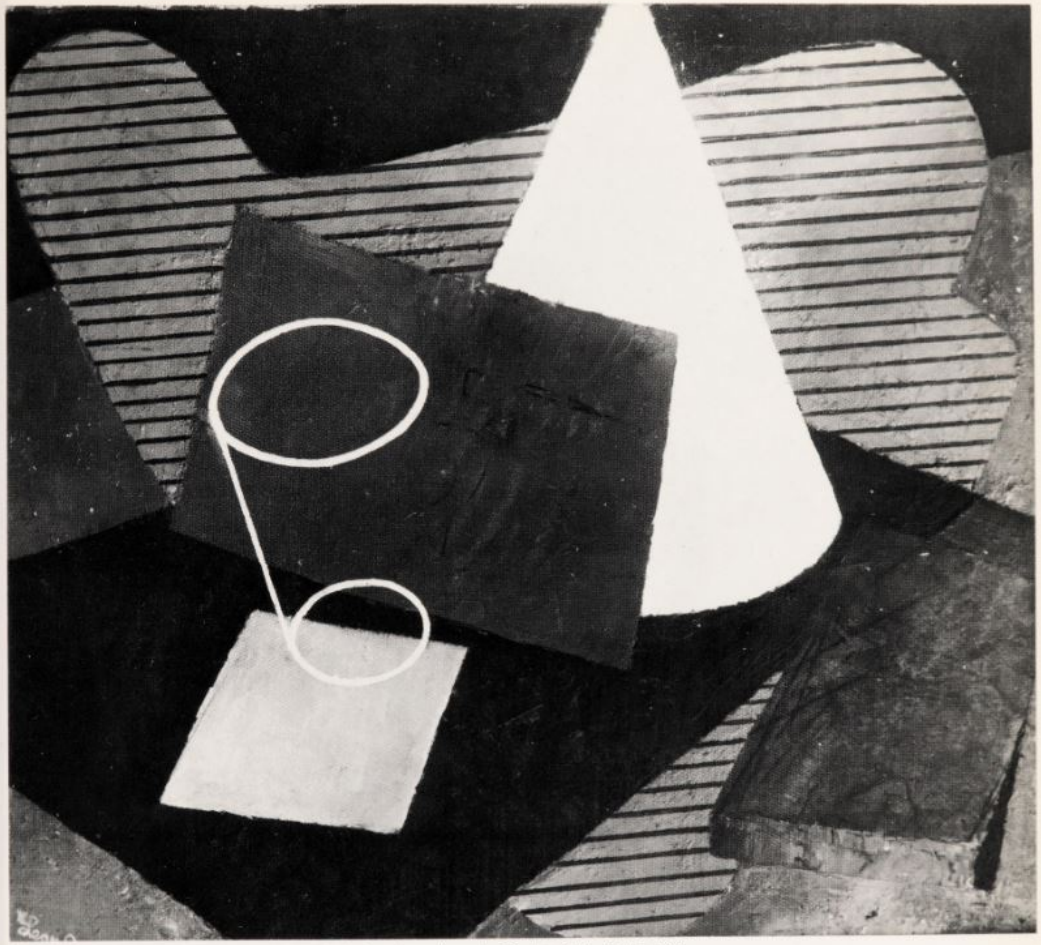
Architectural sculpture in the cubic character which was executed in sandstone as a workshop project following the Basic course.



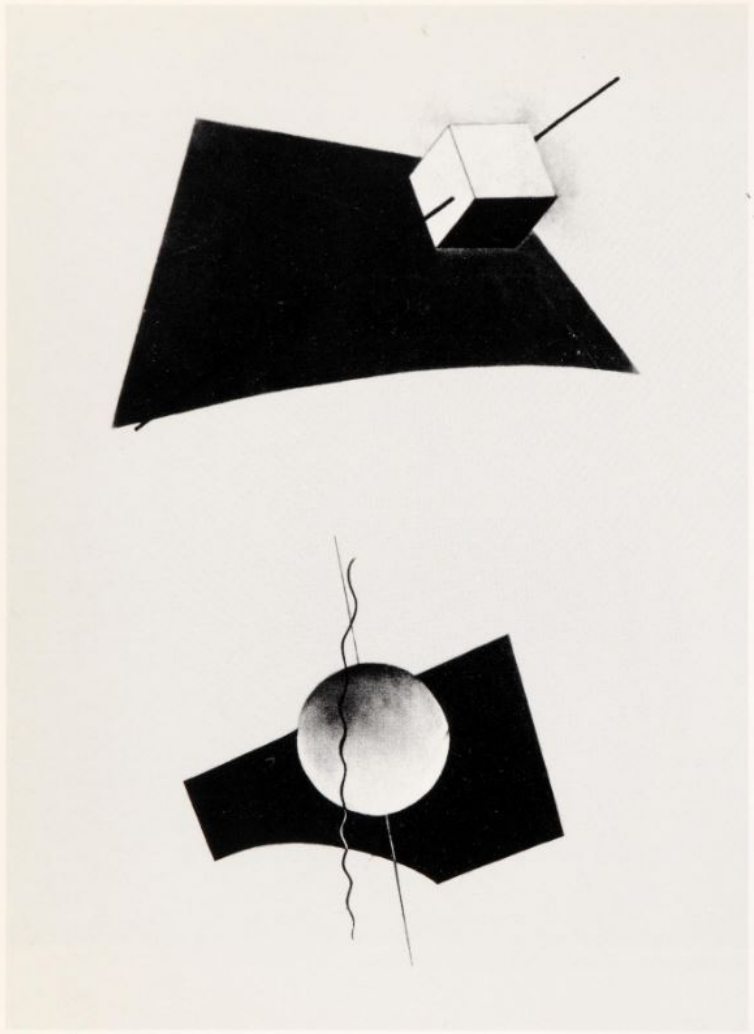
Stone sculpture. K. Schwerdtfeger, Weimar, 1921.



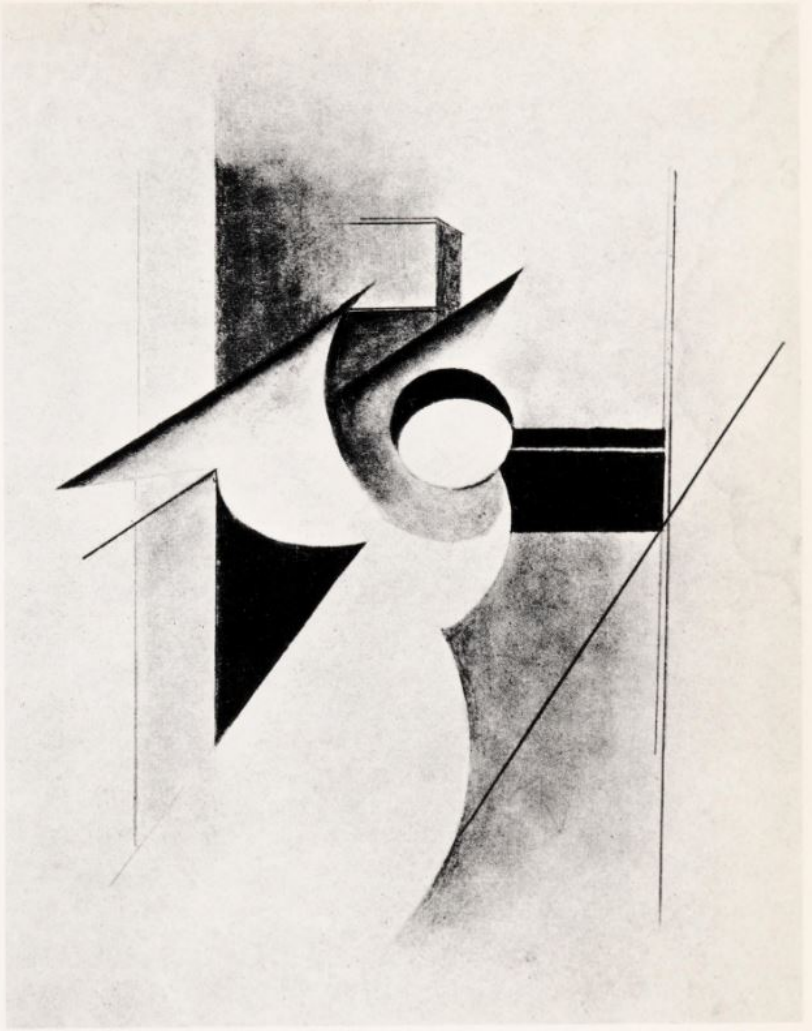
Cube, cone, sphere, and cylinder drawn imitatively as three-dimensional picture elements. F. Brill, Berlin, 1928.



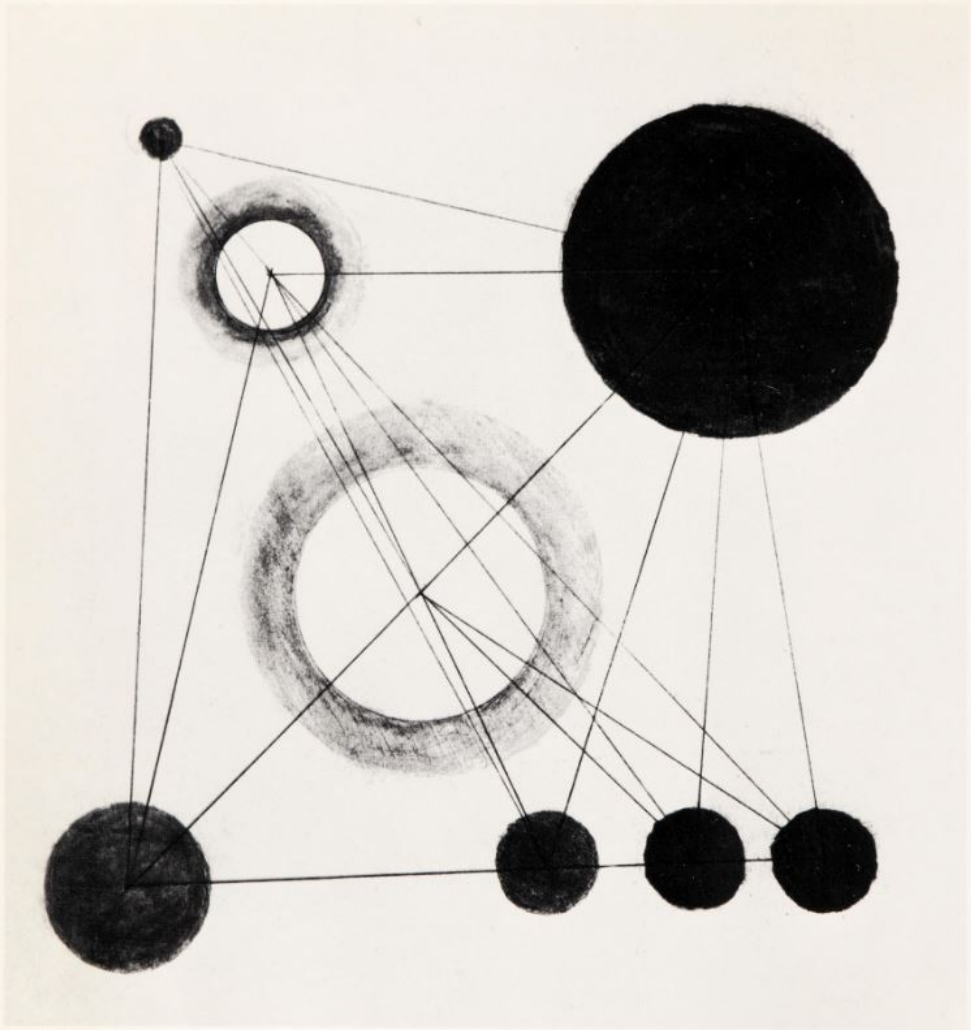
Here, three-dimensional bodies were projected on to a plane. L. Springefeld, Berlin 1931



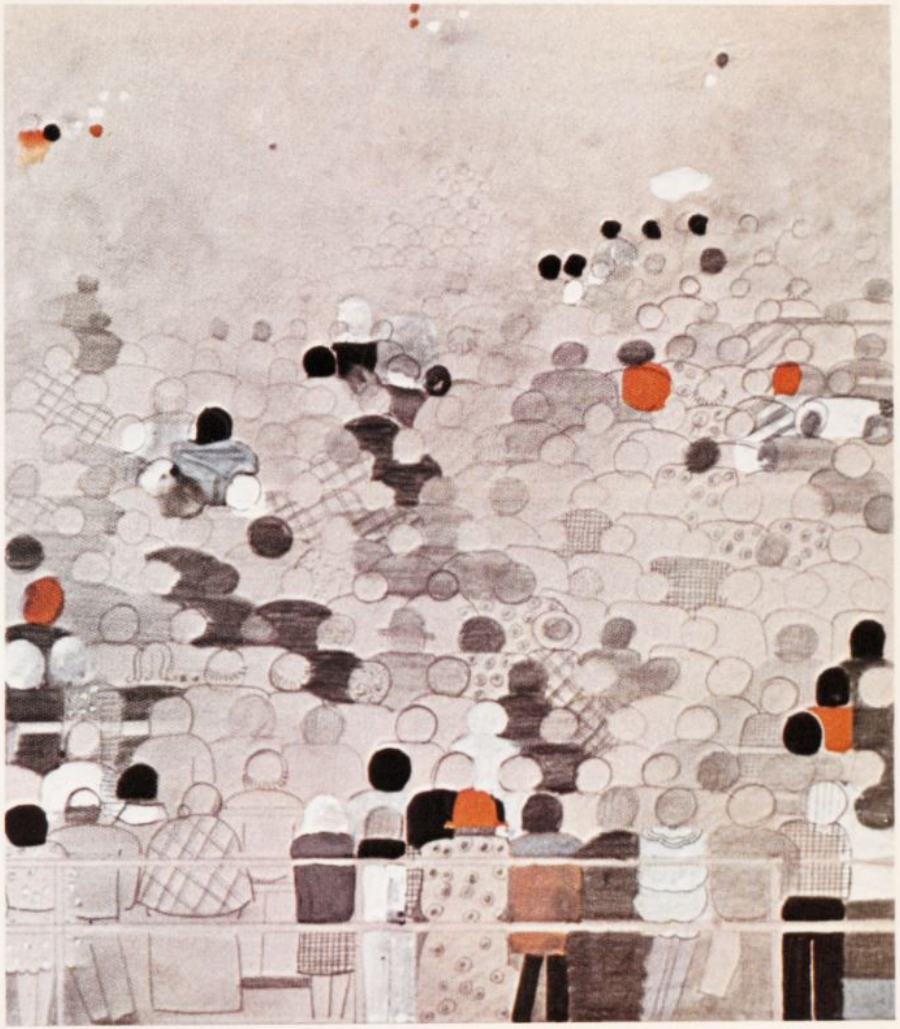
Studies in picture space: body, area, line. G. Itting, Berlin, 1929.



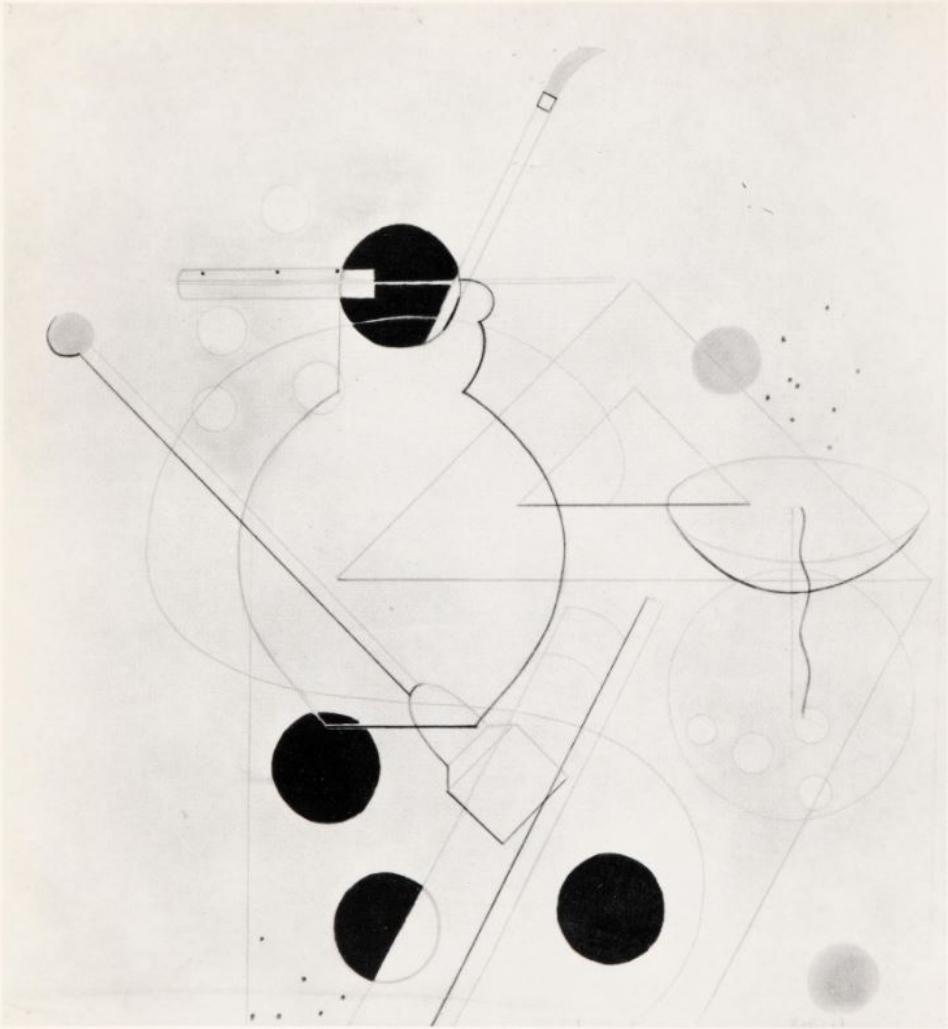
Picture space analysis. *Angel of the Annunciation* by Petrus Christus. U. Klemm, Berlin, 1929.



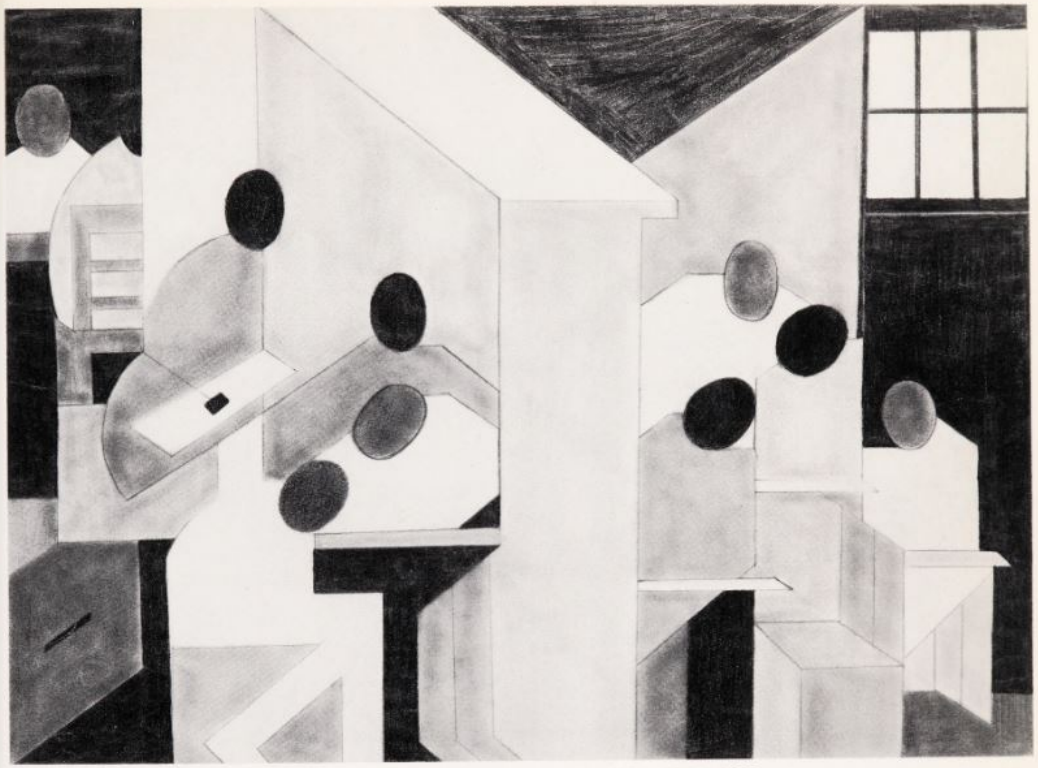
Disposition of points of accent and their reference lines as visual paths. H. Stauch, Berlin, 1928.



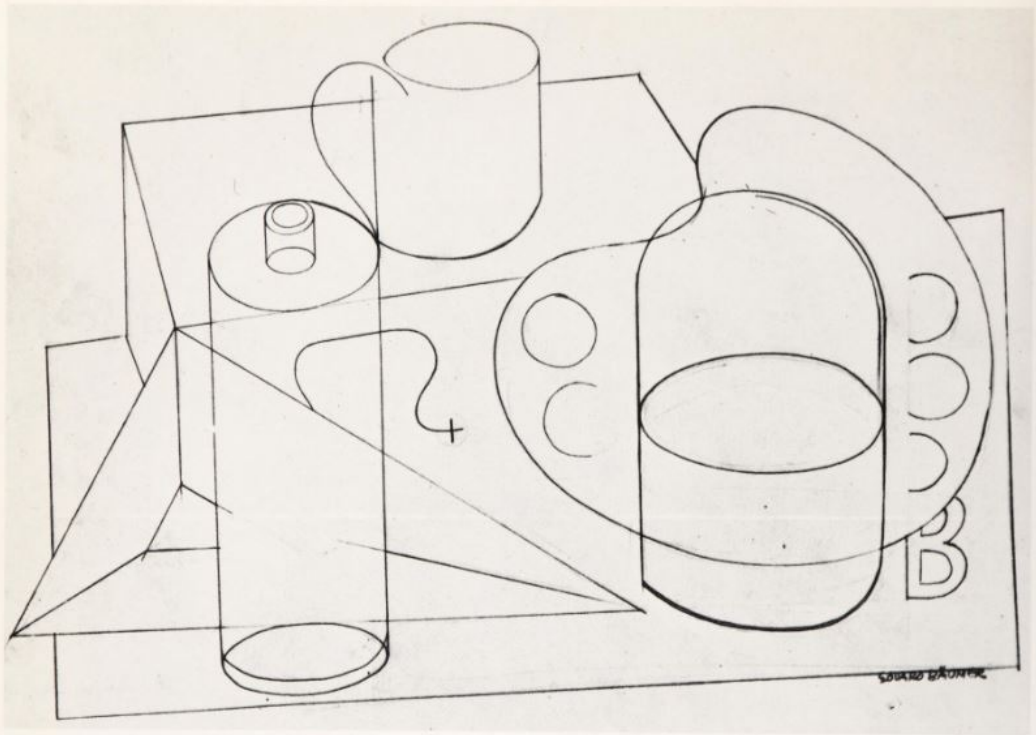
Scattered points of accent in a theme 'The Meeting'. R. Rothe, Berlin, 1928.



Line and points-of-accent study of a still life. R. Rothe, Berlin, 1928.

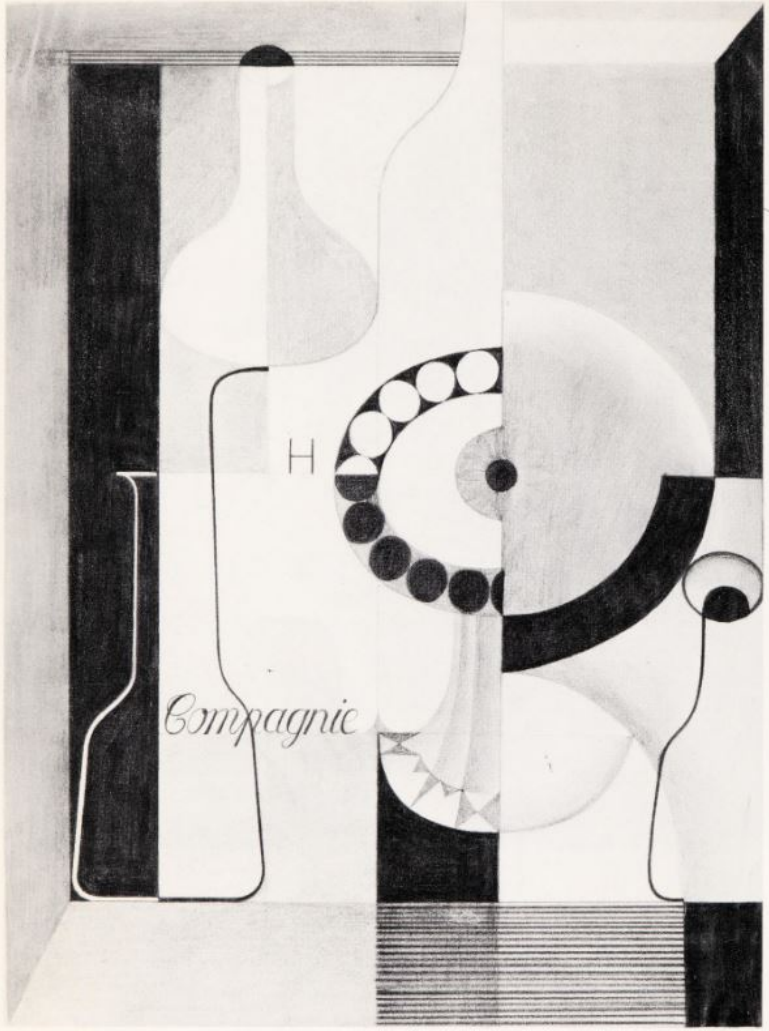


The Class. The task was to achieve good distribution of the heads in space. H. Müller, Berlin, 1929.

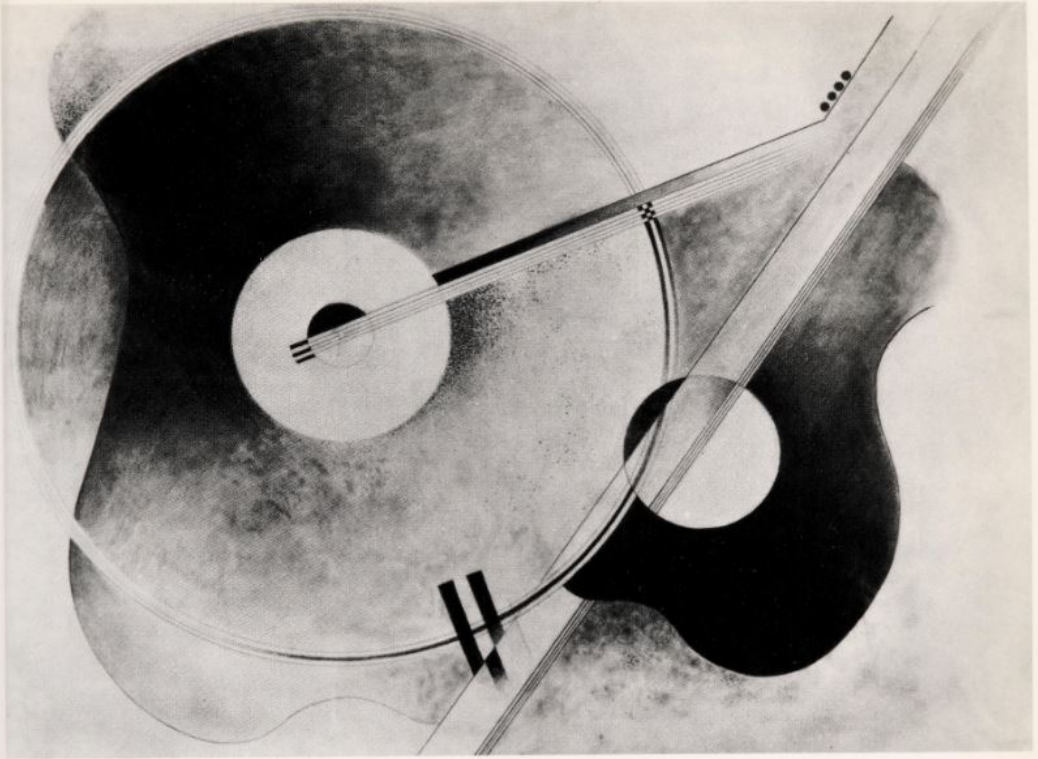


Line analysis of a still life. E. Bäumer, Berlin, 1929.

Still life. F. Brill, Berlin, 1930.



Composition. E. Bäumer, Berlin, 1929.



Musical instruments, composed in contrasts of form and proportion. A. Rehse, Berlin, 1928.

These compositions show lines and surfaces freely arranged to produce a harmony of forms. Such exercises promote a perception of nonobjective form.

Rhythm

Repetition of features, harmony of points, lines, areas, patches, bodies, proportions, textures, and colors are all subjects for rhythm. A rhythm can be repeated like a musical beat with characteristic regularity, in up and down, strong and weak, long and short features. But it can also be irregular, continual, in free, flowing movement. Great strength is associated with everything that is rhythmic. The rhythm of the tides changes the coastlines of continents; the monoform rhythm of the dances of African tribes, which continue for days and nights, drives people into states of ecstasy. Young people experience the rhythm in dancing and jazz. This consideration made me choose the way I used to introduce the students to rhythmical creation. To begin with, I had them step out in a marching rhythm and beat time with their hands. The rigidity of this simplest rhythm, was to grip the whole body forcefully. I then counted a triple beat, so that the stress was first on the right foot, then on the left. Various changes followed, and sometimes two students danced in a syncopated rhythm to a record. These rhythms were then drawn on paper: the marching rhythm was represented with stressed and unstressed straight lines, the treble rhythm with elements of the circle. Different stresses scanned the progress of movement when a march or waltz rhythm was stopped after a few beats and continued at irregular intervals, everybody found the interruption of the rhythmical movement almost painful. To let the students experience the circular rhythm I made them stand up and, loudly counting, swing their arms, with clubs or bottles in their hands in circles or figures-of-eight. It was important that their thoughts should progress at the rhythm of the movement. All the exercises had to be repeated in the form of drawings. The experience of a flowing movement is very impressive indeed whenever the forms are continuously related in the harmony of unison.

To demonstrate that the sense of rhythm need not be confined to mechanical repetition, but can also be flowing movement, I dictated a sentence. I then had this sentence written twice as fast, three times as fast, and finally as fast as possible. The students were amazed to see that they produced the strangest forms of letters, developed beyond the deliberately guided writing movement and displaying a mutual affinity that was extremely rhythmical. When the form of a simple object was joined to the forms of letters written without a break, the individual rhythm of the handwriting continued into this form, which appeared to be part of the handwriting. This observation leads to a deeper understanding of rhythmical composition.

The essence of rhythm can be explained and understood to a certain extent but its ultimate nature is beyond explanation. The rhythmically written forms have an inner dynamism of their own which welds them into a living family of forms. Here we have the essence of true automatism. If the same letters are written without this dynamism, their forms will appear unrhythmically cold, discontinuous, hostile.

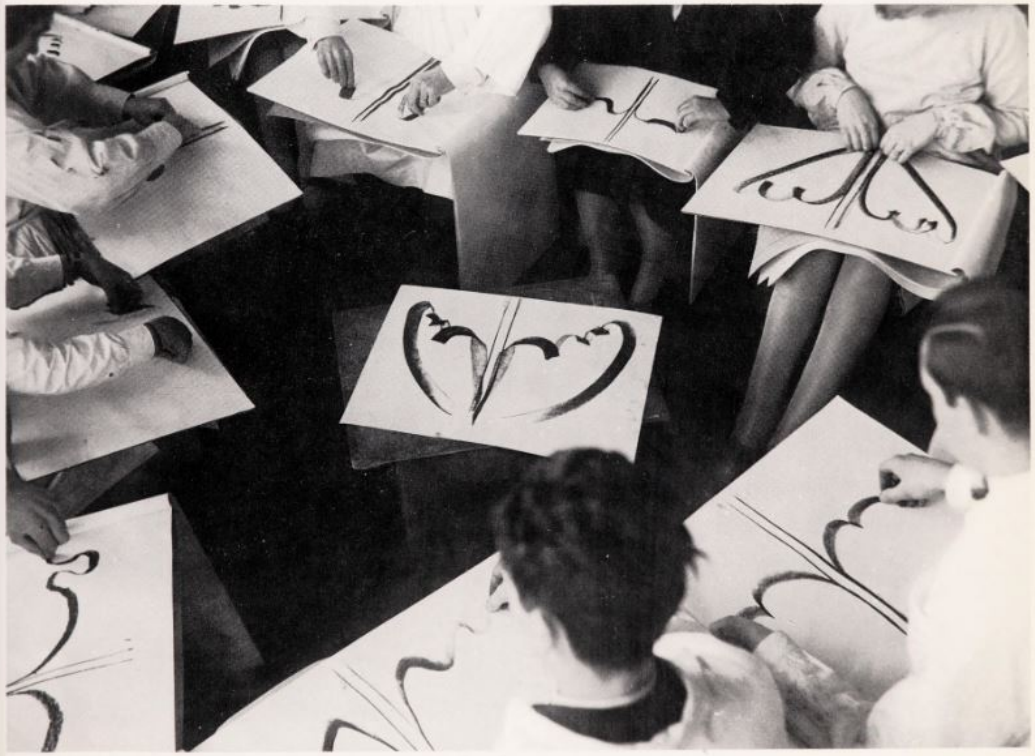
Years ago, I visited a well-known sculptor in his studio. He was working on two larger-than-life female statues for a tomb. The first statue had turned out to his satisfaction, but he had been working for weeks on the second, without success. Inspired by an inner tension, he had created the first statue with rhythmically flowing drapery. It was convincing. The second statue was a failure, because he had approached his work tired and without concentration, and had tried to achieve with his willpower and intellect what one can achieve only through intuition and a free feeling for rhythm.

I made my class study both geometrical abstract and natural forms until they were able to reproduce them in an unbroken flourish. Pages 101 and 119 show a charcoal and a brush drawing made in this manner. Even completely different lines can acquire the expression of rhythm when they are written in an uninterrupted movement. Page 104 represents a progressive rotation of rhythmical movements and countermovements. In addition to rhythmical studies in line, studies in rhythmical spots should be made.

The exercises with the four matchsticks that are shown on page 106 were reproduced in rhythmical writing. In this type of writing it is important to find the right sequence of the individual forms, because the writing movement should be uninterrupted. It must be possible for the forms to develop one from the other, through transitional intermediate forms.

Analyses of Old Masters can deepen the understanding of rhythmic composition (page 109).

It is useful to train the left and right hand equally. The hands can draw or write words parallel or mirror-inverted. Such writing can be successful only when the idea of the letter forms is sufficiently clear to be translated into the corresponding hand movements.



Students writing rhythmical forms with both hands simultaneously.

Parallel rhythmical lines drawn with both hands.

Flourish drawn with two pieces of charcoal in one hand.

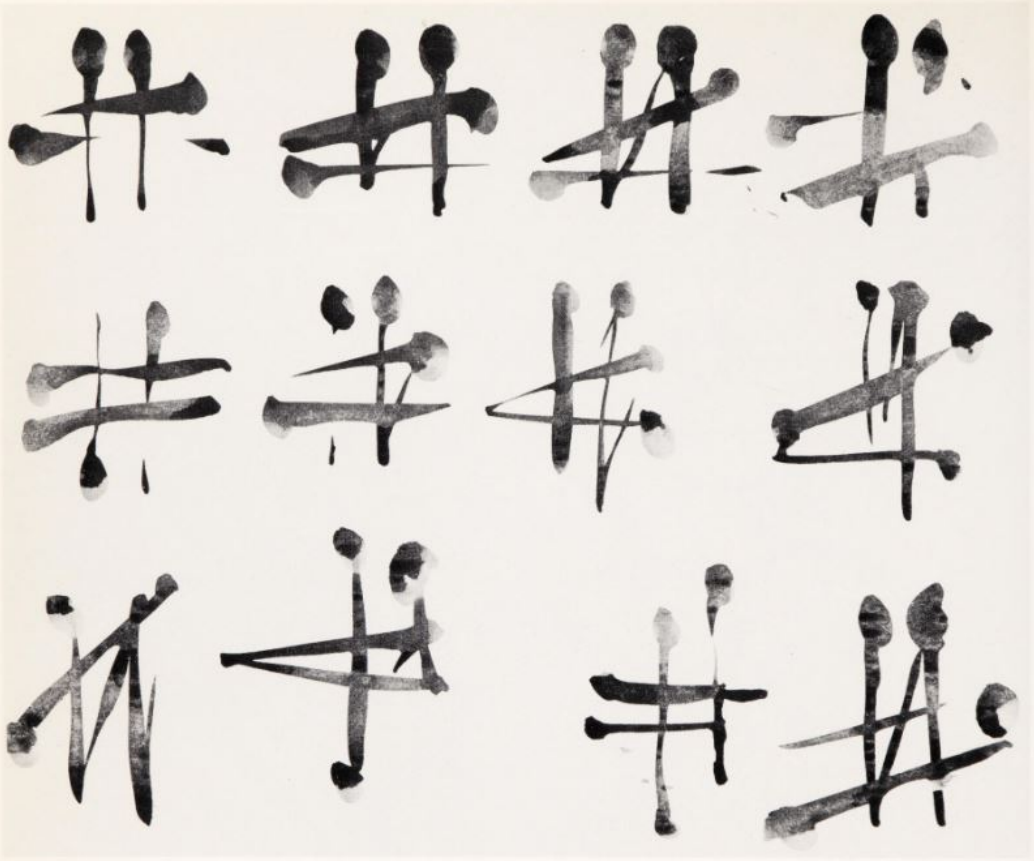
Rhythmically written form. W. Graeff, Weimar, 1920.

Flowing wave motion, arrested wave, and meander as contrasts in expression. Weimar, 1920.

Motion, countermotion, and rotation of rhythmical lines.

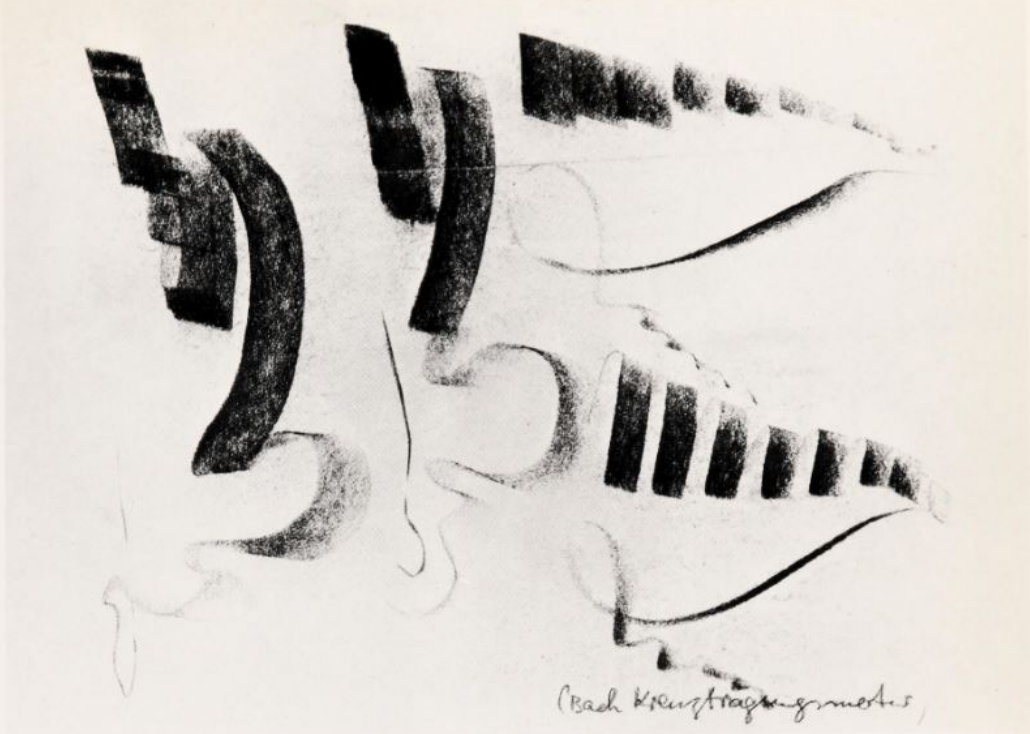
Thistle. G. Stölzl, Weimar, 1920.

If you want to draw a thistle, you should have experienced the sharp prickles and the many opposing directions in which the plant defends itself While the drawing is in progress, the sensation of the defensive character of the thistle must remain alive, so that meaningful and expressive forms can be created in violent, pointed, and stabbing movements.



Quadruple rhythm of matches executed in Indian ink. M. Frey, College of Textile Technology, Zurich, 1959.

Four matches, consisting of dots and dashes, are the subject of this exercise in rhythm, in which each group of forms has been written without interruption. The transitions from one form to the next must be found so that the rhythm is maintained.



Representation of a musical theme. E. Bäumer, Berlin, 1929.

Rhythmical form realized from a powerful impulse. M. Téry-Adler, Vienna, 1918.

Analysis of the rhythmical movement in a painting by Lucas Cranach. A. Wottitz, Weimar, 1919.

Expressive Forms

The teacher's most difficult task is the liberation and deepening of his students' powers of expression. For the execution of the following exercises a very flexible, expressive medium which instantly reacts to the lightest touch of the hand, such as the Indian ink brush or soft charcoal, should be chosen. Most students treat their painting utensils rather carelessly. Brushes are used to cover areas with paint, but not looked after as valuable expressive instruments.

For a genuine feeling to be expressed in a line or area, it must, first of all, vibrate in the creative artist himself. Arm, hand, fingers, last but not least the whole body, should be infused with this feeling. Such a devotion to the work requires both ability to concentrate and a relaxed frame of mind. Brush drawing would never have reached the high standard shown here had the students not prepared for it with breathing, concentration, and relaxation exercises. Superficially fixed seeing, fluctuating thinking, and deliberate acting must give way to inner vision. This includes the readiness to be guided by one's inspiration. The painter must wait until he feels an urge to create. At the moment when he yields to this feeling all the forms he creates will almost automatically fall into place. Thereafter nothing can be added or taken away without the correction appearing disconnected and out of joint. Any work created in such conditions arrests the viewer with its unpremeditated composition.

To draw a large circle free-hand with a brush calls for complete body control and the greatest mental concentration. A famous Chinese ink drawing consists of a single circle painted on silk. Although the line of the circle is uniformly thin throughout, it yet reflects the artist's feeling. One of the most important principles of the Chinese painter in ink is: 'Heart and Hand must be One'. The student using the brush will become aware of the flexibility of its point only when he feels the form he wants to realize and is ready to follow this feeling. As a means of expression the brush is superior to charcoal, because it allows richer tone variation. Whether the charcoal is slanted to the left or right on the paper, it always produces the same dark stroke. The brush, on the other hand, allows rich modulation.

As soon as the beginner has acquired a certain sureness of touch and is able to distinguish between the forms he has experienced and those he has not, he should be given a natural subject to draw. A pitcher is drawn in an uninterrupted line. Its form will be right only when its three-dimensionality, its hollowness, its spout, the firmness of the handle, and the base conform to true knowledge (page 119). The flowers inspire different kinds of sensation (on page 113). Of a human face, only those features can be drawn which a deepened perception of form is capable of spontaneously observing. The eye movement is followed by the movement of the hand. As soon as the artist looks away, he stops drawing (page 122).

A fern was studied for half an hour every morning for a whole week and drawn from nature, so that the students could learn to grasp and understand the characteristic movements of its form. On the last day the pot with the fern was removed, and they composed the representation from memory during 15 minutes in a continuous state of excitement (page 117).

Study of expressive forms offers new possibilities for the pictorial composition of expressive themes such as 'Fighting Dogs', 'Roaring Tiger', 'The Horse Bolts' (pages 125 and 126). Here the method of setting the task is very important. If I set the exercise 'The Tiger', the students would try to draw a decoratively striped animal. But if I say 'Roaring Tiger' the huge cat will be shown in a fear-inspiring posture. After the whole class had tried to roar like a tiger, a conception was created of the danger the beast presents.

Analyses of the Old Masters, too, are occasion for studies of perception. If, in composing a form, heart and hand are at one, this form will become the expression of an intellectual, spiritual content. If this form is able to convey this content to the viewer, it will have the impact of a work of art. When my Bauhaus class analyzed Grünewald's *Weeping St. Mary Magdalen*, Oskar Schlemmer happened to be present. In his book *Briefe und Tagebücher (Letters and Diaries)* the following comment can be found in a letter of May 16, 1921 to Otto Meyer-Amden:

> 'Itten teaches analysis at Weimar. Shows photographs from which the students are to draw this or that important element; usually the movement, the principal line, curve. He then points out a Gothic statue to them; followed by the weeping St. Mary Magdalen of the Grünewald Altar; the students try hard to distil an essential feature from this very complex situation. Itten looks at the attempts and thunders: "If you had any artistic feeling, you would not make drawings in the presence of this most sublime expression of weeping, which symbolizes the Grief of the World; you would just sit and cry your hearts out."'

Change from area to line.

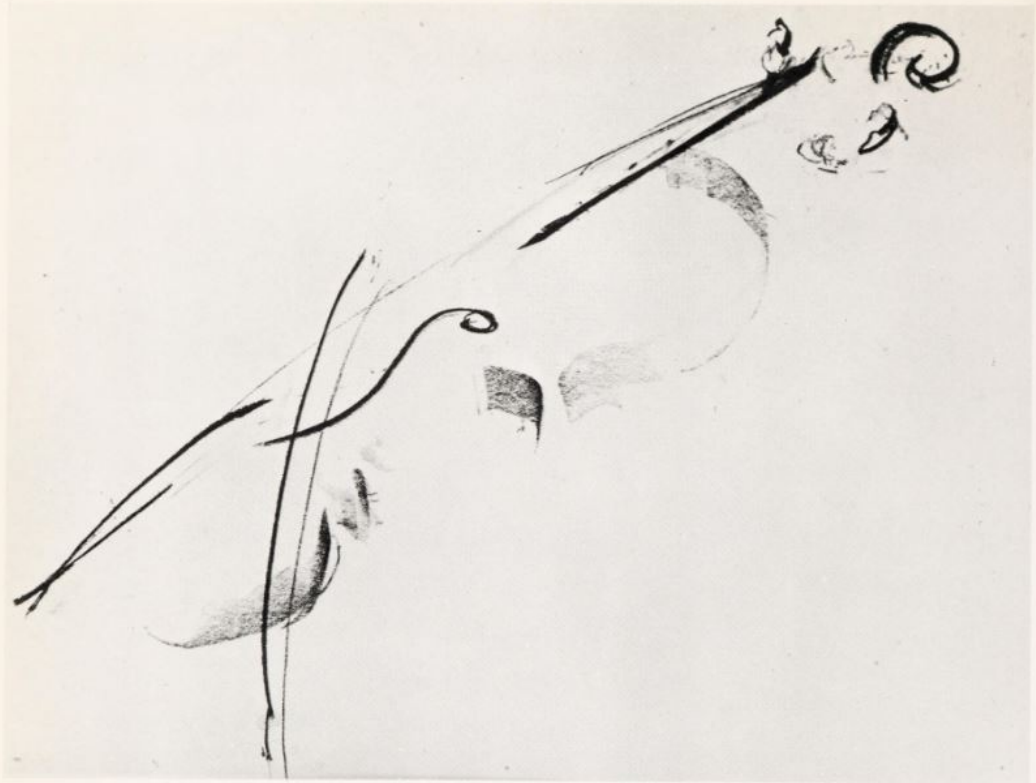
Attempts to represent the progress of a feeling in a line.

Flowers. E. Hasbach, Berlin, 1928.

In this drawing the forms of the stems, leaves, and flowers have been translated into different movement forms and drawn one after the other in an uninterrupted sequence.

Birds on the Wing, expressive movement study. S. Ludwig, Berlin, 1929.

Mice. F. Dicker, Weimar, 1919.



Shorthand' form of a violin. G. Pap, Berlin, 1928.

I asked my students to draw examples of 'shorthand' forms of the most varied subjects without previous study from nature, to find out how much of an idea of certain forms they retained in their memory.

Fern. I. Hirschlaff, Berlin, 1929.

For a whole week the fern had been studied intensely and drawn for half an hour each morning. On the last day I put the plant out of sight, and the students had 15 minutes in which to reproduce it. The studies and observations had created an idea of the form, which deepened and became more precise in the subconscious, so that the students were finally able to produce the form.

Cactus. S. Bauermeister, Berlin, 1931.

To introduce the students to new characters of form and proportions, I gave them the most varied forms of plant to draw. The cactus was represented in a single forceful stroke of the brush.

The jug was drawn with the ink brush in an uninterrupted stroke after the mental conception of its shape had become clear.

Indian ink drawing of a jug.

Cat. E. Kayser, Berlin, 1931.

Many studies of the fur and movements had to be made before this Indian ink brush characterization of the cat could be executed.

The same sensitive rendering as that of the cat (page 120) is shown in the self-portrait with mirror and cat. I advised my students to look at themselves in the mirror at every opportunity, to call themselves by their own names, and to engage in dialogues with their mirror images.

Self-portrait. E. Kayser, Berlin, 1931.

Portrait studies. Berlin, 1928.

The purpose of such exercises is to synchronize eye and hand movements. As soon as the eye ceases to observe, the hand ceases to move. Thus only spontaneously observed features can be reproduced, not those already known. Form associations of momentary impact are created instead of schematic representations of already familiar details.

The tragedy of the event as Grünewald conveyed it in light–dark and the form character of the picture were to be expressively reproduced in the analysis.

Analytical reproduction of the *Crucifixion* by Mathias Grünewald. Weimar, 1921.

Hedgehog and Mole. C. Auböck, Weimar, 1922.

The hedgehog can be characterized by its long, pointed quills, which must be drawn in a stabbing outward movement. The mole, in its velvety-black softness, is a dark object, in which only the tiny feet flash as small light spots. Both animals represent a stark contrast, expressed in this picture.

Roaring Tiger. B. v. Graefe, Berlin, 1928.

If a task called 'The Tiger' were set, all the students would try to draw a decoratively striped animal. But if it is called 'The Roaring Tiger', the animal assumes a fear-inspiring posture. After the whole class had tried to roar like tigers, an idea of the dangerous beast of prey was established. Even the jaguar trembles when the tiger roars.

The Bolting Horse. O. Okuniewska, Vienna, 1919.

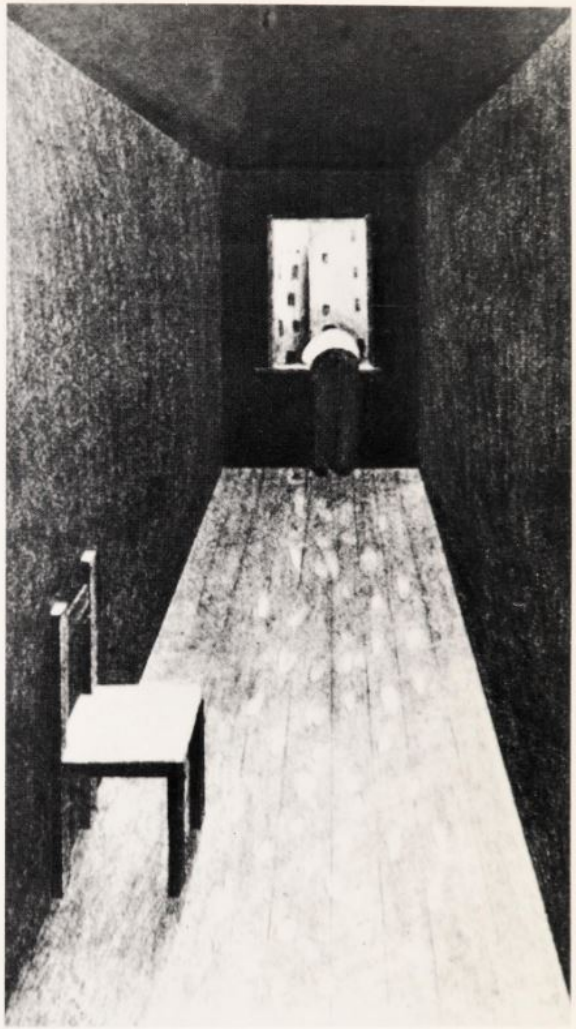
A horse gallops wildly in huge bounds. The driver on the rattling, jolting cart helplessly wrings his hands. The unanatomical shape of the horse and the vague suggestion of the cart lend the scene a frightening expression.

Horse Race. F. Brill, Berlin, 1929.

The Nightmare. G. Itting, Berlin, 1928.

The picture conveys the stark horror of the sleepwalker: his head drawn in, falling from a great height. The ghostly white body contrasts with the glittering texture of the windows.

The task of the month 'I and My Room' inspired the students to create a whole portfolio of drawings from various aspects of this subject. In *The Room as a Cell* an intense concentration of expression was achieved.



The Room as a Cell. F. Brill, Berlin, 1929.

Poster for the first Bauhaus Evening. F. Dicker, Weimar, 1920.

Else Lasker-Schueler reciting at the Bauhaus Evening. The small poster advertises this first event and the students' meeting.

Expressive form study. Collage, M. Téry-Adler, Weimar, 1920.

Subjective Forms

A very gifted student, unusually characteristic of a certain type, was a member of my 1918 painting class in Vienna. She was delicate, petite, shy, and soft-spoken. Her eyes were like moonstones, and her pale skin was translucent. She wore her hair loose, and sometimes, while she worked, it fell across her face like a veil. Her drawings and watercolors were without lines, a half-tone gray, as if veiled; they corresponded exactly to the artist's appearance. This observation led me to recognize subjective forms and colorings in the works of other students, too. Simple people, unspoiled by schools, work almost always in their subjective forms and colors. Where wrong instruction had destroyed the original sureness of form, I devised exercises to lead the various types of student back to their associated types of form.

Subjective character may become evident in various ways: in the proportions, the character of the forms, the light–dark contrast, the lines, the textures, the colors, and often in combinations of these means of artistic expression. There is an innate relation between the forms of a person and the artistic forms he creates. The same formative forces which produce the specific form relations of a person according to his physical, spiritual, and mental constitution are also capable of influencing that person's work. If a person is genuine, everything he does becomes a reflection of his inherent formative forces. A drawing illuminated the problem of these forces in a touching way. A figure sits on a cube in a strangely contorted posture; it appears off-balance and lopsided. The student who had created it actually suffered from a hip ailment. All the drawings she produced lacked balance until I drew her attention to it; this enabled her to correct her faults rationally. Another student never made use of halftone rendering in her compositions and nature drawings, which always consisted of lines, if possible curled and wavy. She was fair, had a light complexion and her hair hung in curly strands across her face. The simplest things became complicated in her mind; it was not easy for her to find her way in life. A student with a broad, boldly-featured face, black eyes and hair, reflected her very strong, simple, and bold external appearance clearly in the powerful light–dark forms she produced at the beginning of her first lesson.

It should be the principal aim of any teacher to promote the growth of genuine observation, genuine feeling, and genuine thinking. Empty, superficial imitations should be removed like objectionable warts. Encouragement to return to the original creative condition liberates students from the constraints imposed on them by the facts they have absorbed merely from mechanical learning.

Any personal formalization of a subject is genuine only when it corresponds to the creative artist's constitution and temperament. I distinguish between three basic types: the material/impressive, the intellectual/constructive and the spiritual/expressive. The material/impressive type proceeds from the observation of the great variety of nature, and reproduces it realistically without any expressive additions. His drawings are the outcome of keen visual observation of nature; they are accurate reproductions even of the smallest details. The intellectual/constructive type, starting from the construction of an object, tries to comprehend everything, put it in order and arrange it geometrically. The spiritual/expressive type allows himself to be guided by his intuition, and in doing so neglects the constructive form. He studies the tone values with special care.

In class, therefore, students working side by side may have completely different temperaments. They all work at the same task, a flower piece. One student experiences the many-toned light–dark elements emotionally, whereas another aims at the most concise, clear, and constructively sure formalization. Yet another dissolves the organic relations between forms into free forms of sensation and expression, and a student of an impressionable nature will produce a realistically detailed nature study; forms that are only felt or only designed would not satisfy him.

In nature study classes I very often set the task of interpreting an object first expressively, then constructively, and then impressionally; finally I ask the students to search for a generally valid representation which might even be called a compromise. Obviously, the most successful effort is always that which corresponds to the student's temperament. Such exercises show up in stark contrast the strong and weak points of every talent.

Man's intellect enables him to recognize the impersonal conformity to the laws of nature and to make use of it objectively. In a more profound sense, all measurement and construction are a means of surmounting the limitations and shortcomings of the human condition to reach an objective statement of general validity. When dealing with subjective colors or subjective forms, it is of value to teacher and artist to know and to pay attention to these facts. Such a study leads to the appreciation of one's own strength and the acceptance of the fact that fellow human beings are different. Teachers should make no attempt to urge their own forms and colors on their students. They should acknowledge, protect, and encourage the subjective talent in each of them. The objective laws of form and color help to strengthen a person's powers and to expand his creative gift.

Index

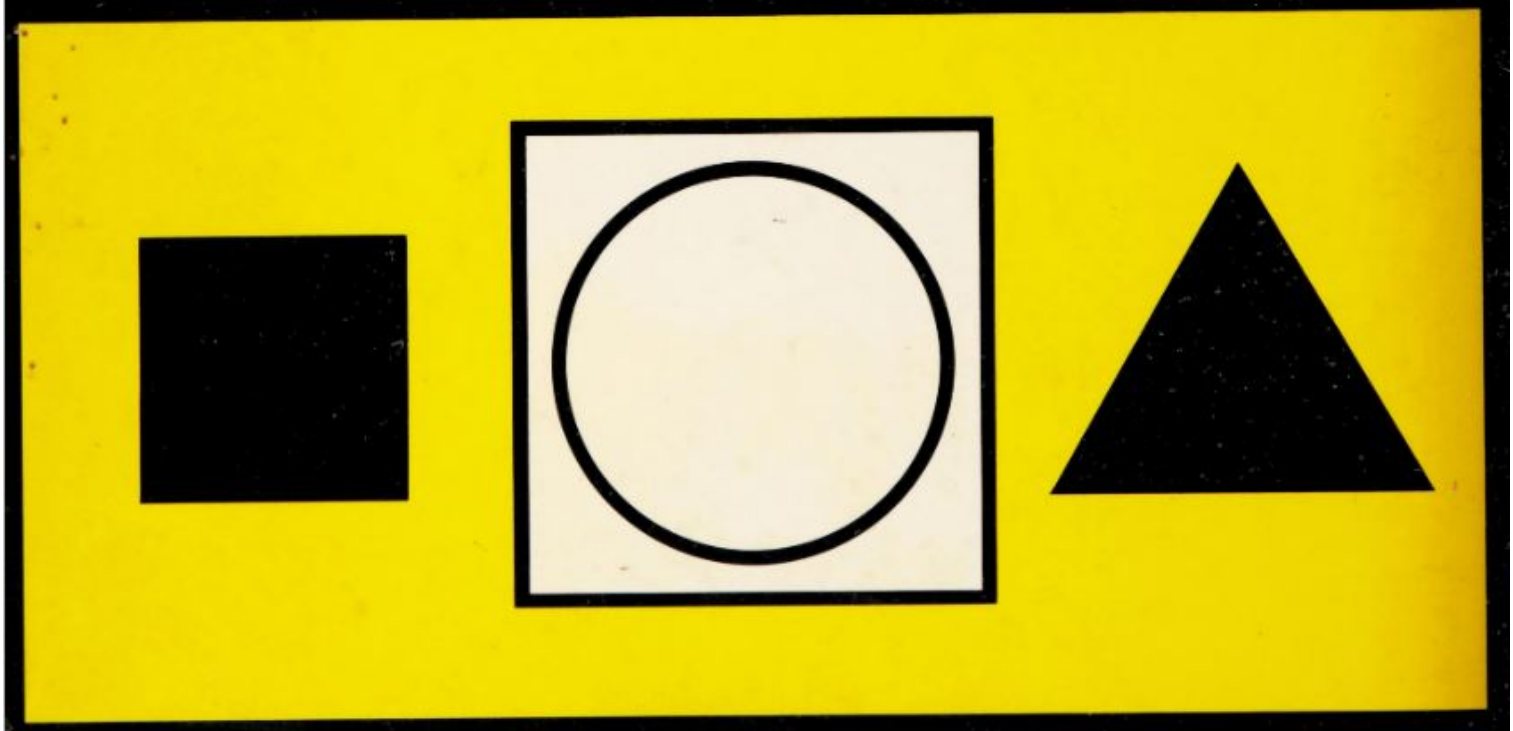
The numbers marked * refer to illustrations

Design and Form is the most complete document of one of the land marks of modern education in art – the famous Basic Course at the Bauhaus in Weimar, Germany. Itten was the teacher who organized it at the invitation of Walter Gropius. First published in 1963 when Itten was still alive, the book has been revised and updated by Itten's widow, Anneliese Itten, and includes new material from the basic course at the Bauhaus, as well as visual examples and descriptions of the refinements made by Itten in later courses in Berlin (1926–1932), Krefeld (1932–1938), and Zurich (1938–1960).

The basic course at the Bauhaus was designed as a trial period to judge students with varying educational backgrounds, to determine their creative talent, to help them in their choice of a career, and to teach them elementary design as a basis for future careers in the arts. Each of the over 200 illustrations reproduced here is described in detail to help the reader understand the purpose of art teaching. The students' original works include studies of nature, pure forms and abstractions, three-dimensional work, and projects in the applied arts. In addition the book includes exciting material on the evaluation of modern art education.

The book has universal appeal for a basic course as a means for individual creative growth and it can be used today by students and art teachers as a foundation for their own basic course.

Johannes Itten (1888–1967) concerned himself with the problems of design and color all his life. His color theory, which has been published in THE ART OF COLOR and in THE ELEMENTS OF COLOR (Student Edition), is a convincing synthesis of the knowledge of the great painter and the experience of the progressive educator, the two elements that informed Itten's personality and his work.



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