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THE INFLUENCE OF JOHANN WOLFGANG VON GOETHE ON THE LEGACY
OF THE BAUHAUS

by
Zachary W. Branson

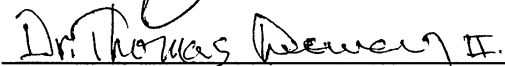
A thesis submitted to the faculty of The University of Mississippi in partial
fulfillment of the requirements of the Sally McDonnell Barksdale Honors College.

Oxford, MS
May 2012

Approved by



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ABSTRACT

Zachary Whiteaker Branson: The Influence of Johann Wolfgang von Goethe on
the Legacy of the Bauhaus
(Under the direction of Professor Betty Crouther)

This paper addresses three color theorists of the Bauhaus and their connection to a single historical source, Johann Wolfgang von Goethe. It begins with an overview of the Bauhaus and a brief chronology of the school, and then moves into a description of Goethe's work, primarily *Theory of Color*. I then discuss Wassily Kandinsky, his writings in *Concerning the Spiritual in Art* and *From Point and Line to Plane*, and his impact on the other teachers of the Bauhaus. The third chapter addresses Johannes Itten's book, *The Art of Color*, and his influence on the Bauhaus and its students through his introductory course, the *Vorkurs*. The final chapter discusses Josef Albers, a Bauhaus student-turned-teacher and painter, who taught at Black Mountain College for over twenty years and wrote *Interaction of Color*. I attempt to connect them using Goethe's psychological and physiological color classifications, as well as establishing a physical link between them. I propose that Goethe's focus on the beholder rather than the color itself carried through to the work of Kandinsky, Itten and Albers, and attempt to establish this through their writings as well as their work.

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Chapter I

Introduction

The Bauhaus is remembered for many things: a focus on both craft and art, a starkly reduced aesthetic, and a continued influence on art for the remainder of the twentieth century. However, the Bauhaus aesthetic that many know – the rational, geometric style – did not become a hallmark of the institution until later in the school's history. The first four years (1919-1923) at Weimar were marked by a far more expressionist leaning, partially through the teachings of Johannes Itten. After he left the school in 1923, Itten's teaching methods, primarily encapsulated in the introductory course the *Vorkurs*, remained a vital part of the Bauhaus curriculum (Lerner 217). Even though he was no longer a member of the faculty, the mysticism he had introduced to the school remained, partly through the work of Wassily Kandinsky and his former student Josef Albers. Albers went on to teach for many years in the United States, both at Black Mountain College and Yale University, and exposed many students to the distinct teaching method as well as the aesthetic style of the Bauhaus. While these three artists and teachers were all innovators in their own right, many of their theoretical underpinnings came from the same source, the German Romantic Johann Wolfgang von Goethe. His book *Theory of Colors* played a

distinct part in each of these three artists' writings and artistic endeavors. This paper will attempt to codify his theory and trace its impact through the writings and teachings of each of these three artists, then examine what impact, if any, he had in the Bauhaus legacy.

History of the Bauhaus

In many ways, the birth of the Bauhaus can be found in the nineteenth century work of William Morris in the British "Arts and Crafts" movement. He was a firm believer in the ideals of the Romantic movement, and held the ultimate artistic expression to be "the Gothic cathedral, in the creation of which all artists joined together in the role of craftsmen" (Bayer 10). Morris formulated the "joyful-maker – joyful-user" model, which he used to explain the transition of "the creative process and the aesthetic experience out of the transcendental realm and into the soul" (Weingarden 9). He imagined that a successful work of art existed between the artist's metaphysical, ideal reality and the user's intuition of that ideal. In the same Romantic light, Morris had a distaste for manufactured goods, arguing that without the personal delight and emotion of the laborer, the user would not gain any physical or psychic welfare from the object (Weingarden 10). These ideals were brought to Germany by Hermann Muthesius, who desired "real cooperation between the best artists and craftsmen on one hand, and trade and industry on the other" (Bayer 11). He founded the *Deutsche Werkbund* in 1907 in order to facilitate this cooperation (Barnstone 47). It was one of the

young architects, Walter Gropius, of the *Werkbund* who found the solution to this problem.

In January 1916, Walter Gropius went before the Grand Duke and government officials of the Weimar province in Germany to discuss his plan to form “a partnership between the artist, industrialist, and technician” (Long 80). By building on the ideas of the Belgian artist Henry van de Velde, Gropius hoped to use the School of Arts and Crafts, the *Kunstgewerbeschule*, in Weimar to create a new type of designer who could bridge the gap between workshops and factories to improve the quality of both design and production. His new program united the former Grand Ducal Academy of Art and the School of Applied Arts to create a collection of masters and apprentices similar to that of the medieval guild system (Long 82). Gropius named this new school after medieval builders’ lodges, the *Bauhütten* (Long 82).

This new Bauhaus differed from the guild system in its basic vision. Gropius saw the unity of all artistic pursuits – sculpture, painting, applied arts, and craft – as the ultimate goal, just as they were in the medieval cathedrals. His curriculum for the school was designed to enable students to pursue that common goal, “a modern *Gesamtkunstwerk*” (Lerner 215). In his 1919 manifesto, Gropius wrote that “A new cathedral of the future will one day rise toward heaven from the hands of a million workers like the crystal symbol of a new faith” (16) (Fig. 1). In this light, the school was referred to as a school of architecture, even though architecture classes were not a formal part of the curriculum until 1927 (Lewis 5).

Teachers at the Bauhaus

Lyonel Feininger, Johannes Itten, Gerhard Marcks, and George Mucho were hired in 1919 to be Masters of Form. In holding with the image of combining craft and fine art, each class was led in a dual manner – an artist serving as a Master of Form and a craftsman serving as a Master of Design. The two Masters were essentially creating “laboratories for working out practical new designs for present day articles and improving models for mass production” (Bayer 37). Interestingly, even though Gropius was creating a school to focus on handicraft instead of traditional fine art, he selected three painters, Itten, Feininger, and Mucho, as the Masters of Form in workshops that had very little to do with painting. Feininger served as the Master of Form in the printing workshop while Mucho was the Master of Form in the weaving workshop and worked with Itten to teach the preliminary course. Itten served as the director of the preliminary course, the *Vorkurs*, and the Master of Form for all workshops except ceramics, bookbinding, and printing. The fourth, Marcks, was a sculptor by training, so his place in the ceramics workshop was quite fitting.

The following year, Oskar Schlemmer was hired to direct the wall painting and stone sculpture workshops while Paul Klee, a painter, was brought in to head the metal and bookbinding programs. The next appointment, Wassily Kandinsky in 1922, was the last addition to the early Bauhaus Masters of Form. These seven artists, with Walter Gropius at the head, developed a school and a curriculum unlike any other at the time, with roots in both German Expressionism

(Itten) and the avant-garde painting movement (Klee and Kandinsky). In the early years (1919-23), Itten's influence over the school's direction was unquestioned. By taking control over the introductory classes and indoctrinating students when they first arrived, he managed to effectively channel the school into one direction.

In 1921, the Dutch painter Theo van Doesburg moved to Weimar to pursue a teaching position at the Bauhaus. Van Doesburg was a member of De Stijl, a movement concerned with "lucid, elemental, and unsentimental art" (Smith 36). After being initially turned away, he remained in the town and started to offer classes separately from the Bauhaus. He taught approximately 25 students who, in turn, brought his abstraction back to the school. At the same time, Itten and Gropius were clashing over the ideological direction the school was taking. Itten wanted to implement elements of mysticism more heavily, primarily tenets of his Mazdaznan beliefs. He saw ritual purification through fasting and enemas, vegetarianism, and various meditative exercises as crucial to the spiritual nature of the Bauhaus experience (Grawe 34) (Fig. 2). After several years Gropius began trying to redirect the school towards his original intent, a unity of design and production, and saw Itten's mysticism as contradictory to that goal. At the end of 1923, Itten resigned and was replaced by László Moholy-Nagy, a believer in Russian Constructivism. Moholy-Nagy's appointment represented a fundamental change in the school's teachings. With his hiring, the Bauhaus turned towards a practical view of the world with a focus on "formal rigor and technical competence" (Ockman 80). Moholy-Nagy brought a new dedication to strong, simple geometric forms and "inquiry into the most basic relationships in

art” (Long 86). From this point forwards, the Bauhaus was committed to the clean, minimal, uninhibited style with which it is associated today.

In 1924, after a long struggle with the local government regarding funding, Gropius decided to close the Weimar Bauhaus and move the school to Dessau. There he was able to plan and build the facilities that stand to this day. When the new school opened in Dessau (Fig. 3), Gropius hired several former students as junior masters: Josef Albers, Marcel Breuer, Hinnerk Scheper, Joost Schmidt, and Gunta Stolzl. They worked to fill the gap left by the departure of Itten, Marcks, and Feininger. In February 1928, Gropius resigned and appointed Hannes Meyer to be the new director. Meyer’s outspoken position as a Communist became a threat to the school’s continued existence, and Gropius fired him in 1930. Funding issues again caused the school to move, this time to Berlin, with Ludwig Mies van der Rohe as the newest director. Soon after, the Nazi regime denounced the Bauhaus as degenerate and forced the closure of the school in 1933.

Legacy of the Bauhaus

Though the physical school of the Bauhaus closed in 1933, many of the teachers and students emigrated to the United States where they went on to teach at many of the leading art institutions. Ludwig Mies van der Rohe went to the Illinois Institute of Technology in Chicago and created the “New Bauhaus,” an

architectural school dedicated to the use of modern materials, particularly steel and plate glass. Walter Gropius and Marcel Breuer moved to Cambridge, Massachusetts, to teach at the Harvard Graduate School of Design, where they applied many of the Bauhaus philosophies Gropius had established in Weimar.

The greatest impact of the Bauhaus may not have been in its minimal style or modern design, but instead in its revolutionary teaching style and theoretical structure. Johannes Itten's *Vorkurs* is seen as a fundamental basis for many modern art education programs. Current foundational art education emphasizes "that education through vision and the sense of touch, and by means of the great richness of materials and tools now available, is all important" (Logan 42). The *Vorkurs*, constructed by Itten and brought to America by Josef Albers, has a fundamental basis in Johann Wolfgang von Goethe's *Theory of Colors*, particularly in the focus on the study of contrasts. Goethe's description of the physiological and psychological characteristics of color and the penultimate importance of the viewer was crucial to the development of Wassily Kandinsky, who recorded his own musings on the subject in *Concerning the Spiritual in Art* and *From Point and Line to Plane*. These books, as well as Kandinsky's early work in abstraction, contributed to Itten's development as an artist and in turn to his teachings. Josef Albers, a student of both Kandinsky and Itten, was exposed to the work of Goethe and subsequently wrote about it in *Interaction of Colors*. In short, *Theory of Colors* was instrumental not only in the development of the color theories of each of these three men, but also in the development of the Bauhaus.

Chapter II

Johann Wolfgang von Goethe

Johann Wolfgang von Goethe is probably best known for his work as a poet and member of the German Romantic movement. He lived in Weimar for most of his life at the invitation of the Grand Duke of Saxe-Weimar-Eisenach, a lifelong friend and patron. While *Faust* and *The Sorrows of Young Werther* may be his most widely read works, he invested a great deal of time in scientific pursuits, including biology and for a brief time, geology. However, the work he personally considered his most important was in the field of color theory, published in 1810 in the aptly named *Theory of Colors* (Finley 530). At the time, he attracted a great deal of attention for this book, mostly regarding his attacks on Isaac Newton's recently published work in the same field, *Opticks*. This particular chapter was so controversial that the original translator, Charles Eastlake, only translated the first and third chapters, omitting the major references to Newton (Brown 36). Though his theories as to the nature of color were ultimately rejected in favor of Newton's theory of wavelengths, Goethe's extensive collection of observations on the impact of color on the eye and brain came to be quite influential.

Theory of Colors

Goethe's attacks on Newton arose from his personal observations and thoughts on the subject rather than from objective experiments of the scientific sort. He acknowledged several times that he was no scientist, and had no use for mathematics in this field of study (xlvi). Indeed, he blamed Newton's esteem as a geometer for the widespread acceptance of his theory on optical color (287). While Goethe agreed that color is a physical entity, he also saw it as the interplay of light and dark, between the passive and the active. The basis of this theory came from his own personal observations of Newton's famous experiment with the prism (84). When a prism is set at a certain distance from a surface and a beam of light is passed through it, distinct colors can be seen (Fig. 4). However, when the distance between the surface and the prism is altered, the composition of the beams and the colors able to be observed change considerably (Fig. 5). Goethe observed on the edges of the light areas, yellow was always present, while blue was present on the border of the darkness. From this, he developed the interplay between the passive blue and the active yellow to form the different known colors of the spectrum. He saw those two as being the only two pure colors, with all the others, primarily green, violet, red, and orange being the result of interplay between the two (206).

An inherent difference between Goethe and Newton is their different approach to the problem of pure white light. After passing white light through a prism, Newton concluded that what we see as white light is actually all colors of

light transmitted together, and the prism only serves as a medium to spread the colors out based on refraction. Conversely, he saw darkness as the absence of color, as all the colors were combined into white light. Goethe, on the other hand, saw white light and darkness as the same – polar opposites, but essentially two pure entities (331). The interplay between the two, and between the medium through which they are seen, affects the color they appear to be. He therefore explained the prism as a turbid medium which was crucial to the appearance of any color (54).

Goethe also constructed a six value color wheel (Fig. 6). His chromatic circle was based on three sets of opposing colors, the colors he recognized as “demanding each other.” He observed that after staring at a yellow field for a period of time, the eye would demand violet, and vice versa. Newton constructed his color wheel out of seven colors (Fig. 7), using indigo to create a system more easily compared to that of musical theory. Goethe contended that while certain aspects of music and color certainly seem to pertain to each other, “at present there are no demonstrable connections between the two” (298). He allowed that, at some point in the future, the two certainly had the potential to be reconciled as they both act “according to the general law of separation and tendency to union, of undulation and oscillation.” (299)

Beyond his criticism of Newton, however, is Goethe’s development of physiological and psychological colors. He defined physiological colors as those that “belong to the eye in a healthy state...we consider them as the necessary conditions of vision” (2). He went on to identify what Schopenhauer took as one

of his fundamental principles, the activity of the retina. "In the act which we call seeing, the retina is at one and the same time in different and even opposite states. The greatest brightness, short of dazzling, acts near the greatest darkness" (5). One of the first examples used was that of a black cross on a white ground. After staring at it for a time and then looking elsewhere, a white cross on a black ground appeared. In the section on colored objects, the six-hue chromatic circle was discussed (319). By discussing the effect of an afterimage, a chromatic circle was constructed to pair the colors that demand one another. The hues that oppose one another are complements and evoke each other in the eye (21). He then went on to describe the effects of simultaneous contrast. "In a court which was paved with grey limestone flags, between which grass had grown, the grass appeared of an extremely beautiful green when the evening clouds threw a scarcely perceptible reddish light on the pavement" (27). This chapter on physiological colors went on to identify phenomena such as colored shadows, chromatic aberration, and refraction.

The second classification of color that Goethe described was psychological color. Each of the six colors from his color wheel are described, as well as their tertiary neighbors. He divided them into two larger categories, that of the "plus" and "minus," or "active" and "passive" (340). Those colors that fall on the active side are yellow, red-yellow, and yellow-red. They are all characterized as being "quick, lively, aspiring" (306). Goethe then went through, color by color, and profiled each of them, slowly moving towards those of the passive persuasion. He noted that though yellow is "magnificent and noble," it is also

extremely liable to contamination, which gives it a “very disagreeable effect” and begins to tend towards the minus side (307).

Red-yellow and yellow-red come without too much encouragement, as they contain all the strength of pure yellow. Referencing once again his belief that all colors were simply a mixture of light and dark, Goethe suggested that darkening yellow in the slightest tends towards red-yellow and then to yellow-red. The feelings associated with the two are not dissimilar, as the “gladdening” effect of yellow is intensified into “agreeable and cheerful,” it soon passes into “an intolerably powerful impression in yellow-red” (309). He also noted that these intense colors appear to permeate the surfaces they cover, and seem to “at once breathe towards us” (308).

On the other side of the spectrum are those colors of the minus persuasion, blue, red-blue, and blue-red. Goethe’s first observation was that though in pure form blue is a very powerful hue, it is a stimulating negation, a contradiction between excitement and repose (311). Blue seems to recede from the eye, as can be seen in the sky and distant mountains but, as it recedes, it draws the eye after it. However, unlike the disturbing nature of yellow sullied towards the opposing passive side, blue acquires a pleasing effect when pulled towards the active side. When blue lightens to form red-blue and blue-red, the pleasing nature of pure blue is transformed into an unpleasant intensity, drawing the eye along as it seeks a place to find repose. Goethe also pointed out that just as yellow advances towards the eye and brings warmth, blue and its derivatives tend towards a receding coldness (314).

Goethe proceeded to discuss red and green as different combinations of light and dark or blue and yellow, respectively. He noted that red, having two different natures as both passive and active, can convey diametric opposites through slight differences in hue (314). The deep dark state adorns itself with the dignity of age, while the light attenuated tint suggests grace, attractiveness, and the amiableness of youth. In these passages as well as former passages about yellow-red and red-yellow, Goethe noted the simplest differences in hue can drastically change the impression created by the color red (314). When mixed in equal proportions, however, green is considered the exact opposite – it becomes a simple color, which suggests no further changes. Unlike every other hue, which tends towards another, green appears to be at rest.

Goethe's Legacy

At the time, Goethe was also in contact with a number of other philosophers working in similar areas, primarily Philipp Otto Runge, Arthur Schopenhauer, and J.M.W. Turner. Goethe first met Runge in 1803 while he was visiting Goethe's hometown of Weimar. The two remained in contact, and in 1808 Runge turned from his Romantic paintings and focused on his studies of color. He began to formulate the idea of a three dimensional version of Harris's color wheel, calling it the *Farbenkugel* or color sphere (Fig. 8) (Birren 105). In his writings to Goethe, he spoke of the existence of three colors, red, blue, and yellow, and equated them with the Christian Trinity (von Simson 345). In his work, blue represented God and night, red was to be seen as morning, evening,

and Jesus, and yellow suggested the Holy Spirit. Though these primary colors did not exactly correspond with Goethe's two-primary system, he encouraged Runge nonetheless to publish his findings, which he did in 1910 (Rueger 224). His manuscript contained an essay on the rules of color harmony and two hand-colored plates depicting different views of his color sphere. His work was largely set aside, partly because of his premature death and partly due to the eminence of Chevreul's competing system (Selz 133).

Arthur Schopenhauer, the renowned German philosopher, wrote a treatise expounding many of the same ideas as Goethe called *On Vision and Colors* in 1816. The basis for the book came from a series of conversations the two of them had in 1813 and 1814 (Lauxtermann 616). Much like the theory of Aristotle, Schopenhauer thought that color arose from a mix of light and dark. He attributed retinal activity with light and inactivity with dark. Therefore, colors are created in the retina depending on how much activity is occurring, which differs significantly from Goethe's idea that color is formed independently between light and dark. In this same manner, Schopenhauer took Goethe's value scale estimations and turned them into retinal activity estimations. Yellow, three-fourths as bright as white, engages only three-fourths of the retina, and so forth for the rest of the six colors of Goethe's value scale (Lauxtermann 618).

When his book was published, Goethe rejected Schopenhauer's offering on several premises. As Schopenhauer saw white as the full activity of the retina, and all other colors as lesser portions of activity, his view that white was

composed of all colors was at direct odds with that of Goethe. They also disagreed about the inherent nature of color (Lauxtermann 620).

J.M.W. Turner was also exposed to *Theory of Colors*, and used it extensively in his work. Though he didn't read it until late in his career after – Charles Eastlake translated it in 1840 – he became very interested in Goethe's 'plus' and 'minus' colors. His two-part series "Light and Color (Goethe's Theory) – The Morning After the Deluge – Moses Writing the Book of Genesis" (Fig. 9) and "Shade and Darkness – The Evening of the Deluge," (Fig. 10) commonly called the Deluge pictures, are seen to be a direct commentary on the 'plus' and 'minus' color division. Gerald Finley sees Turner's use of yellow in *Light and Color* and blue in *Shade and Darkness* as a tool to "contribute to their sequential, narrative logic and also to their dialectical relationships" (536), but also as a distinct allusion to Goethe's two primaries. Turner's use of light in both of these works, as well as the rest of his catalogue, has contributed to his reputation as a "painter of light" (Finley 530).

These three men took Goethe's theories to heart in differing amounts, but his influence on their work is unquestionable. Runge went on to be a major influence on Itten's work, and Schopenhauer's writings were referenced by Kandinsky. More importantly, J.M.W. Turner's investigation of light turned out to be a very important step in the transition from Romanticism to Impressionism, which formed a basis for Kandinsky, Itten, and the Bauhaus movement as a whole.

Chapter III

Wassily Kandinsky

Wassily Kandinsky, born December 16, 1866, in Moscow, Russia, was originally an economist and a lawyer. By the time he was 30, he had moved into the realm of art, particularly painting. After teaching and working for several years, Kandinsky published his first book, *On the Spiritual in Art* in 1910. The following year he founded *Der Blaue Reiter* with August Macke and Franz Marc. The group released an almanac which featured several articles by Kandinsky. He returned to Moscow when World War I broke out and helped found the Museum for Pictorial Culture as well as the Academy of Aesthetics. In 1921, after the war had ended, Kandinsky felt that he could no longer remain in Soviet Russia as a part of a government “that recognized only ‘objective’ value” and decided to return to Munich (Grohmann 167). In the face of the financial turmoil running rampant in post-war Germany, Kandinsky began to look for alternate sources of income. He approached Paul Klee, whom he knew from his earlier time in Munich, about teaching at the Bauhaus. By June of 1922 Kandinsky had moved to Weimar and was teaching the basic design class as well as a course on advanced theory. He was also teaching analytical drawing, something which he explored more fully in his second book, *From Point and Line to Plane*. He

remained with the Bauhaus until 1933 when Nazi pressure forced its closure, at which time he moved to Paris.

Writings on Art

Starting in 1901, only two years after finishing art school, Kandinsky began publishing in subjects ranging from criticism to screenplays to art theory. His first book, *On the Spiritual in Art*, was concerned with both artistic theory as well as “the demand for ‘higher sensory tools’” (Grohmann 84). Kandinsky was careful to distinguish the purpose of art – not to please the eye but to enlighten the viewer. The artist’s goal is not to create “a huddle of objects painted with varying degrees of skill, virtuosity and vigor, harshly or smoothly” (10). Instead, the ever present goal of the conscious artist should be to drag “after him over the stones the heavy chariot of a divided humanity, ever forwards and upwards” (12). He was very deliberate in distinguishing the different types of art, dividing them into two general categories. The first, the more banal, is that of the artist involved in the material. His art is characterized as skillfully using line and composition, but bringing no enlightenment to the viewer. “With cold eyes and indifferent minds the spectators regard the work.... But hungry souls go hungry away” (10). This particular type of art is well regarded in its time, but does nothing to raise the viewer into a higher plane; in the triangular model of existence, these artists are not in the upper point pushing forwards. They simply rehash what others have already discovered into a tired and macabre facsimile of what true artists strive to create.

Several times, Kandinsky talked about “a hidden fear, a nervous trembling, a sense of insecurity” that hides in all men’s minds, but particularly those who begin to approach the upper edges of the spiritual triangle (23). While they try to rationalize their world and define it according to various laws and theorems, they are always, consciously or subconsciously, worrying that those whom they spurn now will be the sages, statesmen, and artists of tomorrow. These men ask themselves, “If the science of the day before yesterday is rejected by the people of yesterday, and that of yesterday by us of today, is it not possible that what we call science now will be rejected by the men of tomorrow?” (24).

These same questions can be asked about the state of art. “Philosophers of aesthetic who write profound books about an art which was yesterday condemned as nonsense” only serve to codify the art of yesterday and erect temporal barriers to the art of tomorrow (24). That they cannot possibly write about what will tomorrow be considered the art of today is a fundamental problem, Kandinsky asserted (25). All theory of principle, all constructed rules, all classification only “sheds light on the petrified ideas of yesterday and that of the more distant past” (25). The way forward which they are attempting to write about exists only in the realm of the immaterial.

Establishing the means with which one can communicate between the material and the immaterial, the outer essence and inner essence, is something Kandinsky was occupied with for a great deal of *Concerning the Spiritual in Art*. Unsurprisingly, he turned to abstraction as the means to enlightenment. Focusing

on natural things leads the mind to be tied to the natural world and consequentially the material. In music, art, and language, the use of abstraction leads the mind to contemplate the inner essence of whatever is being observed. The poet Maeterlinck was used as an example of abstraction in language (32). Extensive repetition of one word “will not only tend to intensify the inner harmony but also bring to light unsuspected spiritual properties of the word itself” (31). In music, Kandinsky mentioned Debussy, Scriabin, and Mussorgsky, but points to Schönberg as the peak of musical experimentation. “His music leads us into a realm where musical experience is a matter not of the ear but of the soul alone” (35).

After starting with this examination of the means by which inner harmony can be achieved through other arts, Kandinsky transitioned into an extensive study of the various means by which the visual arts attempt to do this. He started by examining the current vogue, the Impressionist movement. The Neo-Impressionists, tending towards naturalism the most, “sought for the ‘inner’ by way of the ‘outer’” (36). Cezanne and Matisse, on the other hand, were to be greatly admired for their ability to take the simplest objects and realize their inner spirit using nothing more than form and color. However, Kandinsky critiqued them as being “typical[ly] French” in that they lay too much stress on the color and cannot always refrain from outer beauty. In this respect, Picasso is recognized as a master. He achieved the logical destruction of matter, and acts in a way so as to put the pursuit for pure artistic form above any conventional

sense of beauty. "In their pursuit of the same supreme end Matisse and Picasso stand side by side, Matisse representing color and Picasso form (39)."

This interplay of form and color is the basis for Kandinsky's explorations in the second section of *Concerning the Spiritual in Art*. He began by repeating what has become a theme throughout: the importance of the inner being. Though every color has an immediate physical effect on a being, certain colors "produce a corresponding spiritual vibration" (48). Here there is an interesting aside on synesthesia, associating red with the taste of blood or yellow with the sour taste of lemon. The author was aware of several different situations relating color vision to other senses, and used this as a means by which to arrive at the soul. The transitive nature and greater power of these colors causes such excitement in the form of spiritual vibration that other senses are affected in similar ways. "It is evident therefore that color harmony must rest only on a corresponding vibration in the human soul; and this is one of the guiding principles of the inner need" (52).

These harmonies allude to the physiological effect of color. According to Grohmann, Kandinsky thought "the direct effect of color is greater than the associative effect" (88). By connecting color not to the sense immediately evoked but to its ability to affect the human soul, Kandinsky saw color as a way to fulfill the "principle of innermost necessity" (48). In a metaphor that he uses throughout *Concerning the Spiritual in Art*, "color is the key-board, the eyes are the hammers, the soul is the piano with many strings. The artist is the hand which plays, touching one key or another, to cause vibrations in the soul" (52).

In his study of color, Kandinsky set up four antitheses based on color complements: yellow and blue, black and white, red and green, and violet and orange (73, 77). The first of these, yellow and blue, are reminiscent of Goethe's yellow and blue. Kandinsky's yellow and blue represent the warm and cold, and are the basis for all other comparisons. These two colors are also antitheses in their inherent motion. Yellow, as a warm color, advances towards the viewer and to the material. When viewed briefly, a body colored yellow seems to be expanding in a counter-clockwise motion, both advancing and growing larger. Blue, on the other hand, recedes and is the basis for the spiritual in color. A form painted with deep blue will appear to shrink in size.

The second antithesis, that of black and white, is somewhat derivative of the first. Yellow and white are paired on one side opposing that of blue and black. When white or black is added to its respective color pairing, the motion – either nearer or further, excentric or concentric – is emphasized. This motion, however, can easily be arrested by making yellow colder or blue warmer; that is, when they are mixed, they tend towards green, which appears to have been paralyzed and has no active motion (73).

As yellow approaches the viewer, its pure chaotic power becomes apparent. As the color most like the natural human condition, it is incapable of profound meaning. "It may be paralleled in human nature...with violent raving lunacy (74)". Blue, on the other hand, turns and sinks into itself, forming the basis for any profound meaning. At its purest, blue creates the feeling of rest.

As these two colors continue to grow further apart, the characteristics which apply to them now are extended to white and black. White, as “a symbol of a world from which all color as a definite attribute has disappeared” (77), represents to us a silence. This silence appears to us to be temporary, the silence in a piece of music, full of possibility. Black, opposite this, is a silence empty of any motion. The inner harmony, slight as it is, remains devoid of any possibility and is “the silence of death” (78). As white and black represent the polar opposites, the mixture of the two forms a gray devoid of anything— no pregnant possibilities and no tendency to motion.

Kandinsky's second book, *Point and Line to Plane*, was concerned far more with the analytical method than color. In a letter to Grohmann, Kandinsky wrote that he saw the book as a way for people “to see what is *behind* my painting (for this is really the only thing I care about...) and not content themselves with saying that I use triangles or circles” (179). The book starts off by addressing what constitutes a composition, and at what point a point can no longer be considered a point. However, it quickly moves on to discussing how tension is created in a work and to what end that tension works. Every line starts off possessing both tension and direction. As different forces act on the previously straight line, different types of drama arise. Alternating forces create zigzag lines which, depending on the angle, suggest different colors. Acute angles tend towards yellow, right angles towards red, and obtuse angles towards blue (Kandinsky 593). These color associations, as well as the various

derivations of a line, can be used in “the formulation of a corresponding grammar for the arts, and for art as a whole” (Grohmann 182).

As his career progressed, Kandinsky began to focus more on the idea of synthesis; that is, combining the vocabularies of various art forms to create one unifying language of expression. Throughout *Point and Line to Plane*, Kandinsky was preoccupied with relating each color and design element to its corresponding musical component. Indeed, he went so far as to use color to paint in chords. As each color demanded a certain note, Kandinsky combined several colors to create increasingly complex musical notes. He wrote that this would require the viewer “to become active and to experience the pulsation of the painting with all his senses” (Kandinsky 628).

Kandinsky and Goethe

Kandinsky’s relationship with Goethe is a complicated one. While *Theory of Colors* begins with direct observation of nature and natural phenomena, Kandinsky instead started with certain strong and emotional contrasts. In *Concerning the Spiritual in Art*, he turned to a characterization of color that focuses on its relationship to the emotional nature of sounds. “What he has in mind is analogies with sounds on the basis of emotional associations, not the identification of musical and pictorial quantities” (Grohmann 90). Kandinsky went so far as to reference Goethe directly regarding the relationship between music and art, saying “painting must count this relationship her main foundation” (Kandinsky 54). “The laws of art and nature...will ultimately lead to understanding

the laws of the world's composition" (Grohmann 218). The two agree, though, that art is above nature, and that "abstract forms are open to the influence of the object" (Grohmann 90).

While the two generally evolved their approach to the use of color from different places, they both determine that there is a strong psychological component to it. Goethe went into some detail as to what emotions certain colors evoke in the viewer, but Kandinsky went into much greater detail, and continued on to attempt to construct a more formal language around them. In *Point and Line to Plane*, his connection between variations in a line and certain colors created a sort of vocabulary with which art can be described regardless of nationality (672).

Chapter IV

Johannes Itten

Unlike his contemporaries Josef Albers and Wassily Kandinsky, Johannes Itten's connection with the Bauhaus was very one-dimensional. For the most part, his impact on the school was entirely through his work as a teacher and theorist rather than as an actual artist. As one of the first instructors of the Bauhaus, Itten was given a chance to develop his own type of teaching and system of education. Before coming to Weimar, he had worked as an elementary school teacher in Switzerland, which is where he first attracted the attention of Walter Gropius (Bayer 30). His training at the Bern-Hofwil Teachers' Academy had exposed him to the work of Friedrich Froebel and Adolf Hölzel, both of whom had a major impact on his teaching style (Siebenbrodt 75). Itten taught at the Bauhaus from 1919 until late 1922, when conflicts with the general direction of the school and its curriculum led him to resign (Erffa 19). He then established the Ontos Weaving Workshops near Zurich, where he worked with a fellow former Bauhaus instructor, Gunta Stölzl. In 1961, he published *The Art of Color*, a collection of his observations and theories regarding the use of color in art and in his teachings at the Bauhaus.

Itten at the Bauhaus

Johannes Itten's time in Weimar was extremely important in the formative years of the Bauhaus. On October 6, 1919, the Council of Masters accepted Itten's initiative to introduce the preliminary course, a suggested trial term for all students to complete before entering the teaching workshops. By the following year, it had become a compulsory part of the Bauhaus curriculum, and would remain an integral part of every student's experience until the school's closure in 1933. This preliminary course, a six-month period in which students were encouraged to explore "the basic principles which underly all creative activity in the visual arts," also allowed the new students to grow together as a community as they went through together (Siebenbrodt 75).

The course, commonly called the *Vorkurs*, was based around the study of contrasts. Itten stressed "that education through vision and the sense of touch, and by means of the great richness of materials and tools now available, is all important" (Logan 42). One of his primary methods of sensory education came directly from his study of Froebel's kindergarten. Friedrich Froebel, a German educator, had developed a system of eleven "gifts" and ten "occupations." The "gifts" were a series of physical objects, ranging from a ball of yarn to a set of small cubes to a set of wire rings and half rings. Susan Blow, an American kindergarten instructor, described Froebel's "gifts."

The Gifts' basis is mathematical, and that they illustrate successively the solid, the plane, and the line. We perceive, too, that they progress from undivided to divided wholes, and from

these to separate and independent elements...The meaning of these distinctions and connections will grow clear to us as we study the common objects of the varied Gifts. These objects are:

- I. To aid the mind to abstract the essential qualities of objects by the representation of striking contrasts.
- II. To lead to the classification of external objects by the presentation of typical forms.
- III. To illustrate fundamental truths through simple applications.
- IV. To stimulate creative activity. (601)

The similarities between Itten's *Vorkurs* and Froebel's kindergarten are striking. Frederick Logan wrote that both understand that "sensory education is the most important aspect of aesthetic comprehension" (42). Both methods of instruction also placed a premium on the value of free expression through various forms, materials, and objects (43). It is also worth noting that Wassily Kandinsky, another influence on Itten, used the kindergarten gifts as a child (Rebay 23).

The *Vorkurs*, in its first iteration under the sole leadership of Johannes Itten, was based on the assumption that "man will be a part of the cosmos if he acts creatively directly from the subconscious, eliminating reasoning powers" (Erffa 16). The first step, relaxation, was often gained through meditation, breathing exercises, or gymnastics. The second set of exercises, those concerned with expressiveness, were designed both to provide the students with

experience with various materials as well as to help “bring [them] into harmony with the material [they] were supposed to work with” (Lange 38). The expressive nature of Itten’s instruction came from his theory that “unless you had a mystical relationship with your material you could not get the most out of it” (Erffa 17).

The Art of Color

Itten used the *Vorkurs* to experiment with various approaches to the use of color. In his book, *The Art of Color*, he includes several students’ work to discuss the idea of subjective timbre. Contrary to Goethe and Kandinsky’s views on color harmony, this subjective timbre allows that harmonious compositions are not subjected to hard rules, but can vary based on the “aura” of the person (25). By using a checkerboard pattern in which different hues can be painted, students were able to express their personal preferences as to what they considered a harmonious composition to be. Itten could then look at their color choices and organization and determine personality traits.

In my studies of subjective color, I have found that not only the choice and juxtaposition of hues but also the size and orientation of areas may be highly characteristic. Some individuals orient all areas vertically; others stress the horizontal or diagonal. Orientation is a clue to mode of thought and feeling. Some individuals incline towards crisp and sharply bounded color areas, others to interpenetrating or blurred and haphazard patches. Individuals of

the latter kind are not given to clear and simple thinking. They may be quite emotional and sentimentally disposed. (25)

Apart from his studies into the subjective nature of color, Itten also constructed several tools to aid in color design. Instead of Goethe's six part circle of complements or Newton's seven hues, Itten used a three part circle of 12 hues (Fig. 11). He did note that the color circle is a natural impossibility, as violet and red never tend towards each other (114). However, just as Newton did, he augmented the colors towards each other to complete the 12 hue circle, which corresponds to the 12 tones of a musical chromatic scale. However, the construction for which Itten is best known is not a color wheel but a color sphere, or star as it is usually shown (Fig. 12) (115). Based on the work by Philipp Otto Runge in the same area, Itten used his sphere to categorically map the entire color world (117). By simplifying it into two tints and two shades, along with the primary hue, Itten was able to construct a rudimentary sphere by which he could accurately describe any individual color, as well as identify every possible complement. It is important to note that unlike Goethe's work, the distinctions are made not by value, but by necessity. Just as the outside of the sphere changes with relation to the poles, black and white, the inside depicts a shift in saturation as the gray core is approached.

In writing *The Art of Color*, Itten played a balancing act between the hard science of Newton and the pure perception of Goethe. By starting out with an acknowledgement of Newton's *Opticks* and briefly passing over the fundamental

properties of light, namely wavelength and light absorption, Itten reminded the reader that he was indeed aware of the science of color. However, just as quickly, he moved on to what he called “psychophysiological color reality” (19) – essentially, human perception of wavelength. This touch of science is thereafter disregarded, as he continued on in examining the principles of contrast.

Harmony and contrast are the subjects of most of Itten’s attention. Because “our sense organs can only function by means of comparison” (36), he devised a course of study which divided all color contrast into seven distinct categories: contrast of hue, light-dark contrast, warm-cold contrast, complementary contrast, simultaneous contrast, contrast of saturation, and contrast of extension.

Itten and Goethe

Itten’s color contrasts borrow heavily from Goethe’s *Theory of Colors*. In his chapter on contrast of extension, he borrowed the numerical ratios Goethe created between complementary colors. Contrast of extension was used as a balancing act between brilliance (intensity) and extension (area of color). By using Goethe’s light values

Yellow	:	Orange	:	Red	:	Violet	:	Blue	:	Green
9	:	8	:	6	:	3	:	4	:	6

Itten was able to calculate what proportions complementary pairs must take in order to fill harmonious areas. By adjusting the proportions of the color wheel to match this ratio, Itten eliminated any contrast of extension. These proportions,

taken directly from Goethe's *Theory of Colors*, also correspond to Schopenhauer's proportions of retinal activity from *On Vision and Color*. Using Goethe's estimations of the relative brilliance of colors, Schopenhauer hypothesized that the same ratio that existed between complementary pairs was also directly related to the proportion of the retina each color stimulated (17). Therefore, as yellow and violet have a light value ratio of three to one, yellow stimulates three fourths of the retina while violet only stimulates one fourth. In this same manner, Itten saw a composition of one fourth violet and three fourths yellow as being harmonious.

Itten's section on color expression is also closely related to Goethe's study of psychological color. While Goethe used historical precedents to determine the nature of each individual color, Itten used students' work to illustrate their color associations with the four seasons (Fig. 13). He went on to discuss each color's unique, psychological expressive value (132). Yellow, at its most essential, is simply compressed light. It suggests weightlessness, radiance, and relates closely to the heavenly realm. As it darkens to red, it becomes imbued with "feverish, belligerent passion" (134). Red contains all the violence and explosiveness of both love and war; as it wavers between red-orange and red-violet, it transitions from passionate physical love to belligerence to spiritual love (134). The calming, deepening effect of blue counteracts the passion in red, always serving as a passive strength. Just as Kandinsky believed, Itten claims blue "beckons our spirit with the vibrations of faith into the infinite distances of spirit" (136). The secondary colors orange, green, and violet are all combinations

of their respective subtractive primaries. Thus, red (power) + yellow (knowledge) = orange (proud self-respect), red (love) + blue (faith) = violet (piety), and yellow (knowledge) + blue (faith) = green (compassion) (137). This exact same principle applies to complementary colors, with yellow (bright knowledge) and violet (dark, emotional piety), blue (submissive faith) and orange (proud self-respect), red (material force) and green (sympathy). These definitions of color could be then applied to any other work. Large sections of *The Art of Color* are devoted to examining famous works such as the *Isenheim Altarpiece*, *Mont Sainte-Victoire*, and *A Sunday Afternoon on the Island of La Grande Jatte*, dissecting them both in terms of color areas and symbolic meaning.

Chapter V

Josef Albers

One of the most famous products of the Weimar Bauhaus was Josef Albers, the German student turned teacher. Originally from Bottrop, Westphalia, Germany, he was 28 when he came to the Bauhaus in 1920. His education started with Itten's *Vorkurs*, something he would go on to teach later. In 1923, Walter Gropius asked the new graduate to stay on as a Junior Master teaching one of the Introductory courses. When the Bauhaus closed in 1933, he and his wife, Anni Albers, another former student, emigrated to the United States to teach at Black Mountain College in North Carolina. He taught there for 17 years, developing an introductory course of his own. In 1950, he moved to New Haven, Connecticut to teach in the Department of Design at Yale University, where he finished his career as an educator. Soon afterward, Albers published *Interaction of Color*, an instructional book regarding his extensive work in color theory. From 1950 until his death in 1976, Albers created a series of paintings entitled "Homage to the Square" which explored the relationship between colors seen alone and together. It is through his adaptation of the *Vorkurs* course, his writings, and his extensive body of work that his overarching theory of color

comes to light, as well as the influence Goethe, Kandinsky, and Itten had on his work.

Albers as Instructor

The first, and probably most obvious influence, can be seen in Albers' teaching. As a student at the Bauhaus, he was exposed to all of Itten's instruction, both the introspective and personal study of contrasts and materials and the more overarching mysticism. There is no direct record of Albers' reaction to the instruction he received under Itten's tutelage, but his later teaching of the same course reveals the value he derived from the famed "study of contrasts" (Arnheim, Lee 174). By the time he arrived at Yale, he had distilled his teaching into four courses: Color, Basic Drawing, Basic Design, and Basic Sculpture. "Together they...proposed a unified way of looking and thinking about the world, of seeing and making, of understanding and valuing visual experience, of developing practical skill and confidence in the integrated use of the eye and the hand" (Craig-Martin 248). His Color course emphasized visual comparison, cross reference, and most importantly, "trust in the evidence of the eye" (Craig-Martin 249). His entire approach was based on "experience, rather than any definite outcomes, of a laboratory educational environment" and "forms of experimentation and learning in action that could dynamically change routine habits of seeing" (Díaz 260). Because color was an inherently unstable and unpredictable element of design, "the ability to see color and color relationship is more important than 'to know about' color" (Díaz 263). He observed through his

own extensive experimentation that theoretical, systematic, and intellectually based attempts to control and arrange the use of color were ineffectual at best. As an instructor, he was not concerned with promoting a strict dogma but instead with developing and ingraining the idea of perception as fundamentally relative. He allowed for personal expression in aspects of study, but in general demanded focus, discipline, and highly logical systems of thought. In his Color Course at Yale, the students were mostly limited to a pack of screen-printed colored papers in order to “focus on color without becoming distracted by the problems arising from mixing paint” (Craig-Martin 250).

One of Albers’s primary goals, both as an artist and as a teacher, was to minimize the impact of self-expression in art. He saw originality “as nothing more than forced individualism...The ambition was to design something better – not necessarily more useful, individuated, or newer, but better in the sense of altering habits of perception and therefore improving the sensitivity of individuals to the construction and organization of the world” (Díaz 276).

Interaction of Color

Alber’s book, first published in 1963, is a series of lessons through which he hoped to enable readers to develop for themselves the acute color sensitivity and awareness that had taken him years of study. Just as Goethe did in *Theory of Colors*, Albers organized the book from practice to theory, “which, after all, is the conclusion of practice” (Albers 1). He also acknowledged that he had no interest in optics or the physics of light, but endeavored to simply demonstrate

the relativity and instability of color (1). Each of the twenty five lessons illustrates a different color action, ranging from simple subtractive color (Fig. 14) to vibrating boundaries (Fig. 15). The lessons were accompanied by color examples, prepared by his assistant Sewell Sillman (Craig-Martin 250).

His care in this area can be seen in his printing of *Interaction of Color*.

Michael Craig-Martin described the printing process:

[*Interaction of Color*] was an attempt to preserve Albers's teachings on color for posterity and to provide a teaching tool for the future.

There were those who objected that to produce such a book would destroy the organic, living character of the course by fixing its limits, and that it was fundamentally against Albers's own example. The book, proceeded, however, approved by Albers.... In order to avoid the inaccuracies of normal, even high-quality printing, every color was mixed and tested personally by Sillman, and every image was screen printed. This means that the book contains no 'reproductions' in the usual sense, each color page being in effect an original print. (250)

Albers wrote with the belief that perception is king, and all color is relative. In such, he depended wholly on his experience and memory to formulate contrasts and dynamic contrasts, not a fundamental understanding of the principles of color (70). This stands both in stark contrast to but also in line with Itten's instruction. While Itten had an extensive system of studying opposites and

contrast to identify the properties that each exhibited, he also put a premium on personal experience with identifying the explicit properties of each member of those contrasts. Both men put personal experience with the materials and their properties at the forefront of their teaching, but Itten also used a much more regimented method to determine those contrasts. While Albers certainly used a color wheel and such devices in his teaching, he relied more on the student's observation of those colors than in understanding where they lay in relation to one another.

In *Interaction of Color*, Albers mentioned Goethe by name several times (43, 143). Unlike Kandinsky and Itten, Albers saw very little value in Goethe's studies of psychological color (44). While he recognized that color certainly had the power to evoke powerful spiritual and emotional reactions in viewers, he also saw that those were deeply personal in nature and had very little to do with universal truths (Charlot 196). Albers did include the "Goethe Triangle" (Fig. 16) as an example of an organized system of color relationships. The physiological observations of Goethe, however, served to be much more useful to Albers. In observing the changes between two colors, or the reaction of the eye when presented with two colors at once, the contrasts become more apparent. In his chapter on Color Harmony, he discussed what proportions of color lead to a harmonious composition (42). Goethe's six-part circle of contrasts and Schopenhauer's revised version, in Albers' opinion, were "a means of underlining, of pronouncement, and a means of equilibrium, of balance" (43).

Art of Josef Albers

A tedious attention to detail pervaded every aspect of Albers' art. He was never one to turn to free inspiration or spontaneous design, but instead relied on a careful progression from one step to the next. "What Albers advocated was not simply following a set of rules but rather *reworking* continually, being a perpetual student of the complex organization of forms in our world" (Díaz 271). This dedication to constantly evolving work can be clearly seen in two of his bodies of work, "Adobes" (1947-53) and "Homage to the Square" (1950-76). Both works are characterized by hundreds of studies and variants, all meant as an elaboration on a theme. He desired each composition to be dynamic – that is, untamed by simple harmony and distinctly asymmetrical and imbalanced (Díaz 263). In order to do so, "Albers attempted to maximize the contrast between elements in a given composition" (Díaz 272). In doing so, he was interested in using pure color as a means of exploration. Patricia Garland found that he used, at a minimum, 15 different brands of paint (64). On the back of many of his paintings, he listed the exact colors used in that particular work. The extreme luminosity desired was only possible through the direct application of the purest paints (Garland 64). In fact, Albers rarely mixed paints. Instead, he chose to apply them directly from the tube to the canvas (Garland 64). The use of pure, unmixed paint was a method of removing another distraction from the viewer. In his quest to "relate pure colors, one to another" Albers saw fit to remove all extraneous visual material and subject matter. His square, a pure form, suggests nothing from nature and is therefore purely non-representative.

His work was governed by the same principles he espoused in *Interaction of Color*. Albers once said, "Color, in my opinion, behaves like man – in two distinct ways: first in self-realization and then in the realization of relationships with others. In my paintings, I have tried to make two polarities meet – independence and interdependence" (Kuh 11). In *Interaction of Color*, Albers provided a series of guided experiments, designed to help the reader develop a sort of color vocabulary. Instead of trying to convey a system of colors or a prescription for what colors worked with each other, he presented a diverse set of circumstances to better frame the reader's own experimentation (Díaz 265). This same practice was mirrored in Albers's art. He saw each iteration of his theme, each individual construction, as a form of practice. Each painting was a sort of performance, "so stringently rehearsed in preparatory studies that the paintings themselves profited from Albers's facility with the knife" (Díaz 272). Even though he claimed to have suggested the use of masking tape to Mondrian, he never used it himself as he believed it was easier to simply use a palette knife. (Garland 65).

His sketches and studies emphasized the importance of the practice that went into each work; those same studies also formed a sort of finished work of their own. For *Adobe*, Albers created extensive sketches on graph paper to create a more complete composition of color and arrangement (Charlot 196). The calculation of distances between forms, area, and proportion were all tested in sketches. The position of the frames and the inner "windows," as Albers referred to the central squares, were moved in relation to one another until a desirable

iteration was found (Díaz 266). An important note to be made here is that he was not working inside a certain set of rules but instead continually modifying his complex organization of forms.

Chapter VI

Conclusion

Wassily Kandinsky, Johannes Itten, and Josef Albers form a continuum through the history of the Bauhaus. Wassily Kandinsky began teaching in 1922 at the age of 53, already a well-established artist and theorist in his own right. His writings, primarily *Concerning the Spiritual in Art* and *From Point and Line to Plane*, helped guide the early development of Johannes Itten as an artist. When Itten arrived in Weimar, he brought a revolutionary style of teaching based on the work of Friedrich Froebel through which he was better able to disseminate his own work in the field of color theory. As two of the Masters of Form, Kandinsky and Itten were foundational influences on Josef Albers while he was enrolled in the Bauhaus. Afterwards, at Black Mountain College as well as Yale University, Albers was able to carry Itten and Kandinsky's message to a new generation of American artists.

When looking at each of their individual theories, very distinct differences present themselves. Kandinsky spent almost the entirety of his first book discussing the metaphysical aspects of art and connecting them to all of humanity. He was not content with analyzing singular works of art, instead trying to formulate theories that encompass all art that has ever been created. Albers,

on the other end of the spectrum, had no interest in analyzing any one work of art. Beyond passing references, he did not use any one work in *Interaction of Color*, instead choosing to construct abstract fields of color for instructional purposes. Itten, firmly aligned between the two, outlined his series of seven contrasts but also used famous works of art to emphasize each point he tried to make.

In approaching the same subject from three different directions, these three men provided different analyses of some of the same influences, primarily that of Johann Wolfgang von Goethe. His book *Theory of Colors* not only provided some of the first records of common color phenomena such as simultaneous contrast and chromatic aberration but also one of the first attempts to explain them. His attempt at a scientific explanation was terribly off-base, but his observations of the effects of color on the human eye and the brain continue to be relevant. In *Concerning the Spiritual in Art*, Kandinsky used Goethe's chapter on psychological color as the basis for almost all his observations on the effects of color, even framing his chapter in a similar manner. Itten's book *The Art of Color* and his groundbreaking course the *Vorkurs* were based around the idea of contrasts that Goethe expounded in both his sections on psychological and physiological color. After first examining color through contrast, Itten encouraged his students to examine all aspects of design through the same manner, intensifying the differences between the two to come to a more complete understanding. Finally, Josef Alber's *Interaction of Color*, a veritable instruction manual to honing skills of color observation, relied entirely on Goethe's chapter

on physiological color. The anecdotes and observations from life that Goethe recorded provided a guide to Albers's personal journey through color perception. Goethe's insistence in *Theory of Colors* that the readers experience each of these phenomena for themselves is written in the exact same manner as *Interaction of Color* and also served as a foundational tenet of Josef Albers' teaching.

The legacy of the Bauhaus is complicated in nature, in part because of the changes in the school's mission and in part because of the differences among the instructors. However, the one universal aspect of the experience of all Bauhaus students was the introductory course, the *Vorkurs*. It was through this course that the students learned what the Bauhaus was and how they would approach their studies while in school there. It is through this course that Itten left his greatest impact on the school and through this course that the impact of the Bauhaus is still being felt today. Modern introductory design classes borrow heavily from Itten's instructional model, emphasizing personal experience and experimentation over any grand theoretical approach. The classical, regimented academic approach has been, in large part, replaced by an attempt to aid students in developing their own skills of perception. This emphasis on perception and the power of the individual is the legacy of the Bauhaus today.

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Figure 1. Lyonel Feininger. *Cathedral for Program of the State Bauhaus in Weimar*. Woodcut. 1919.

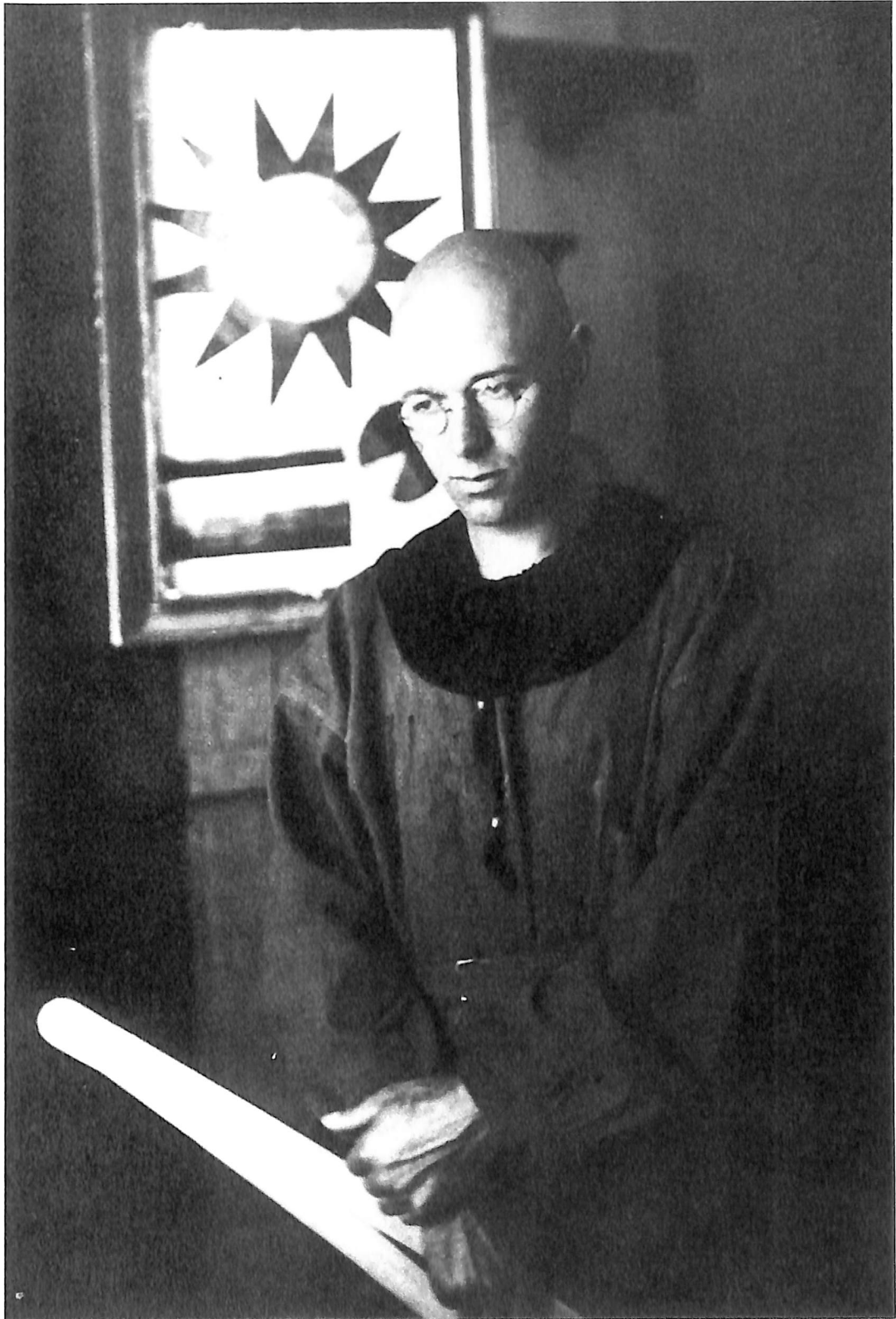


Figure 2. Paula Stockmar. *Johannes Itten (1888-1967)*. Photograph. 1921.

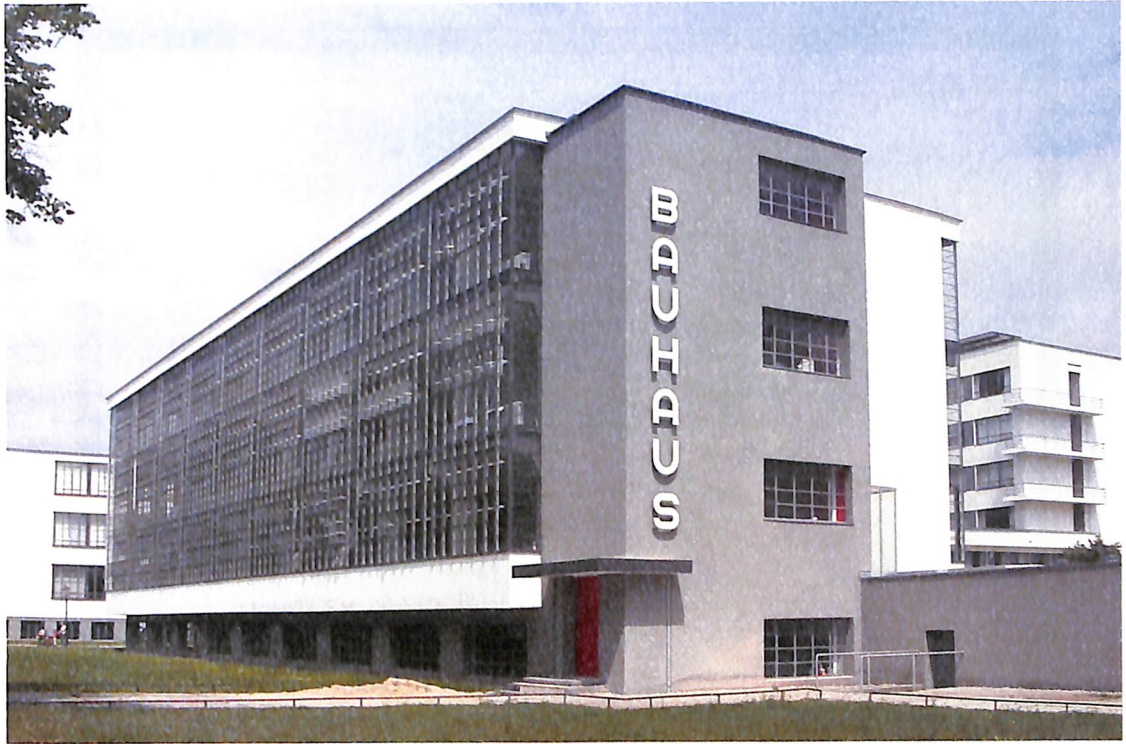


Figure 3. Walter Gropius. *Das Bauhaus (Dessau)*. 1925.

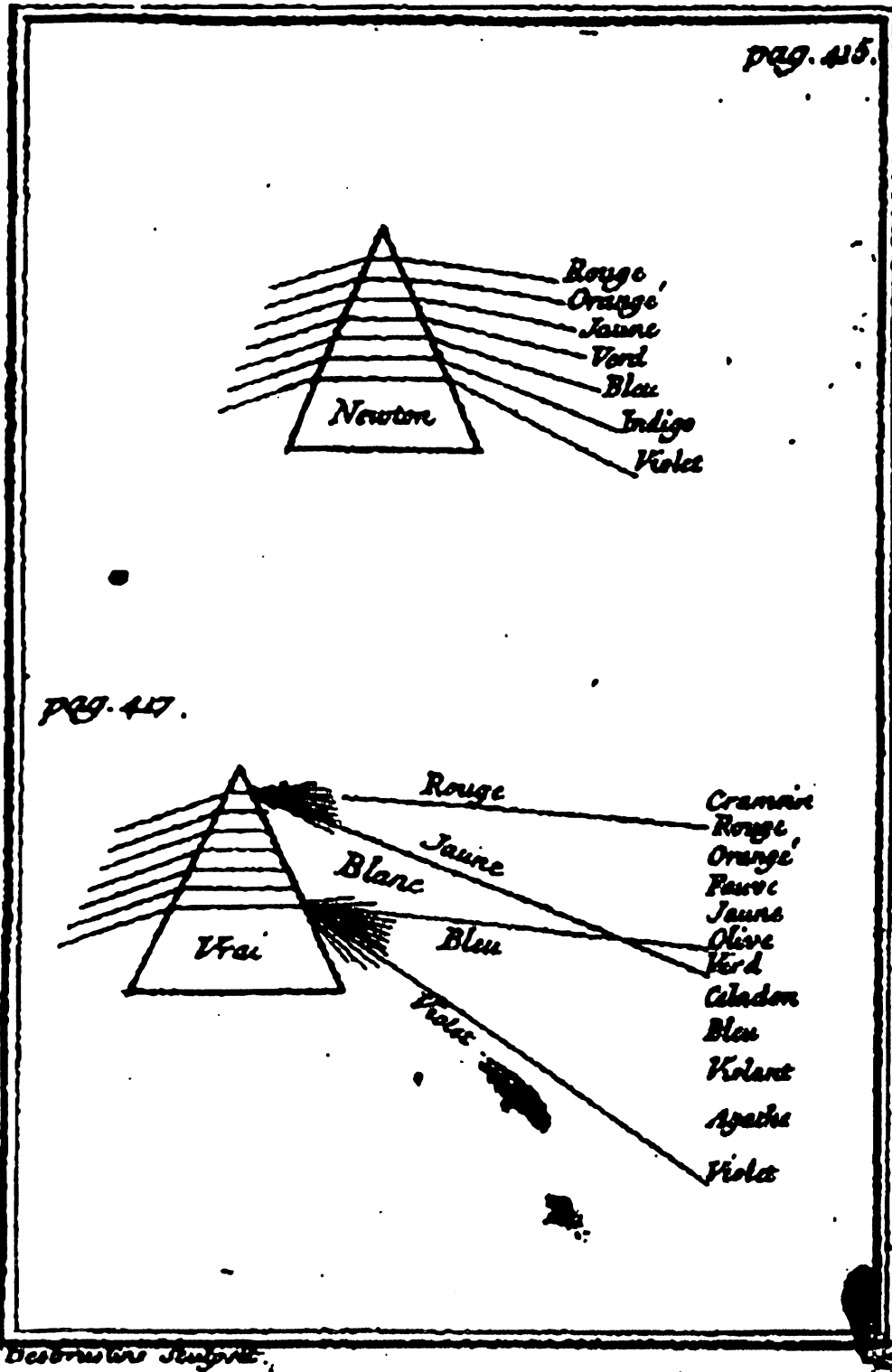


Figure 4. Johann Wolfgang von Goethe. Excerpt from *Theory of Colors*. 1810.

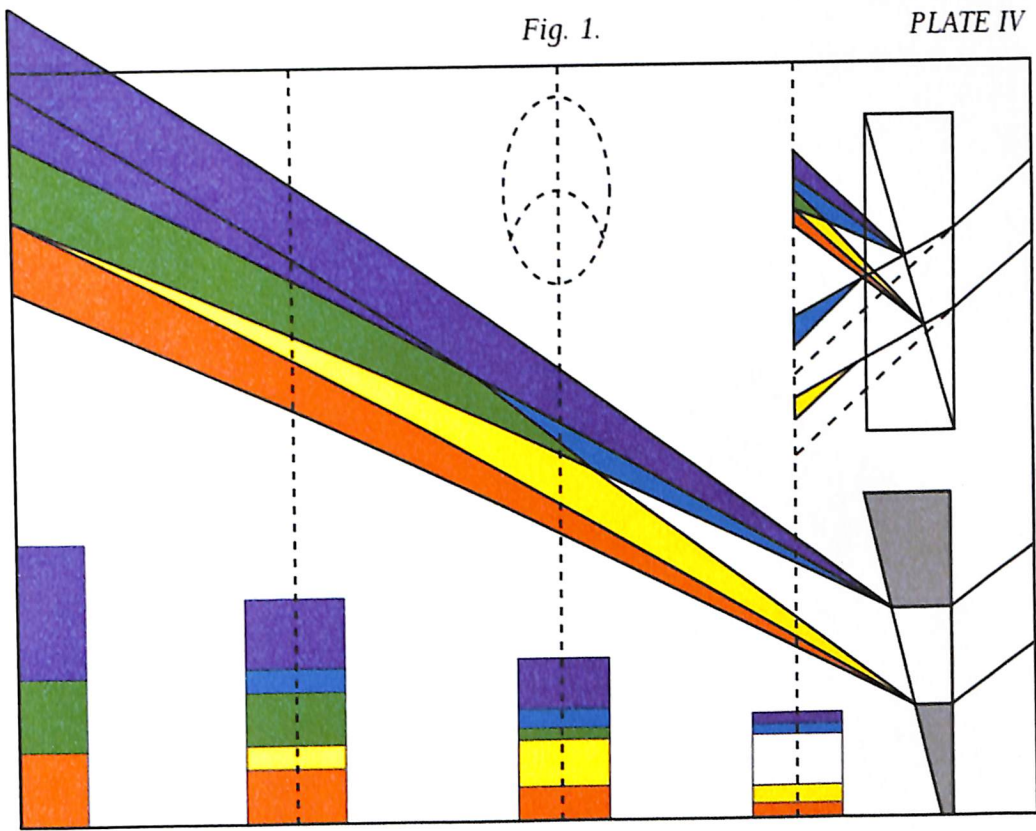


Figure 5. Diagram of white light passed through a prism.

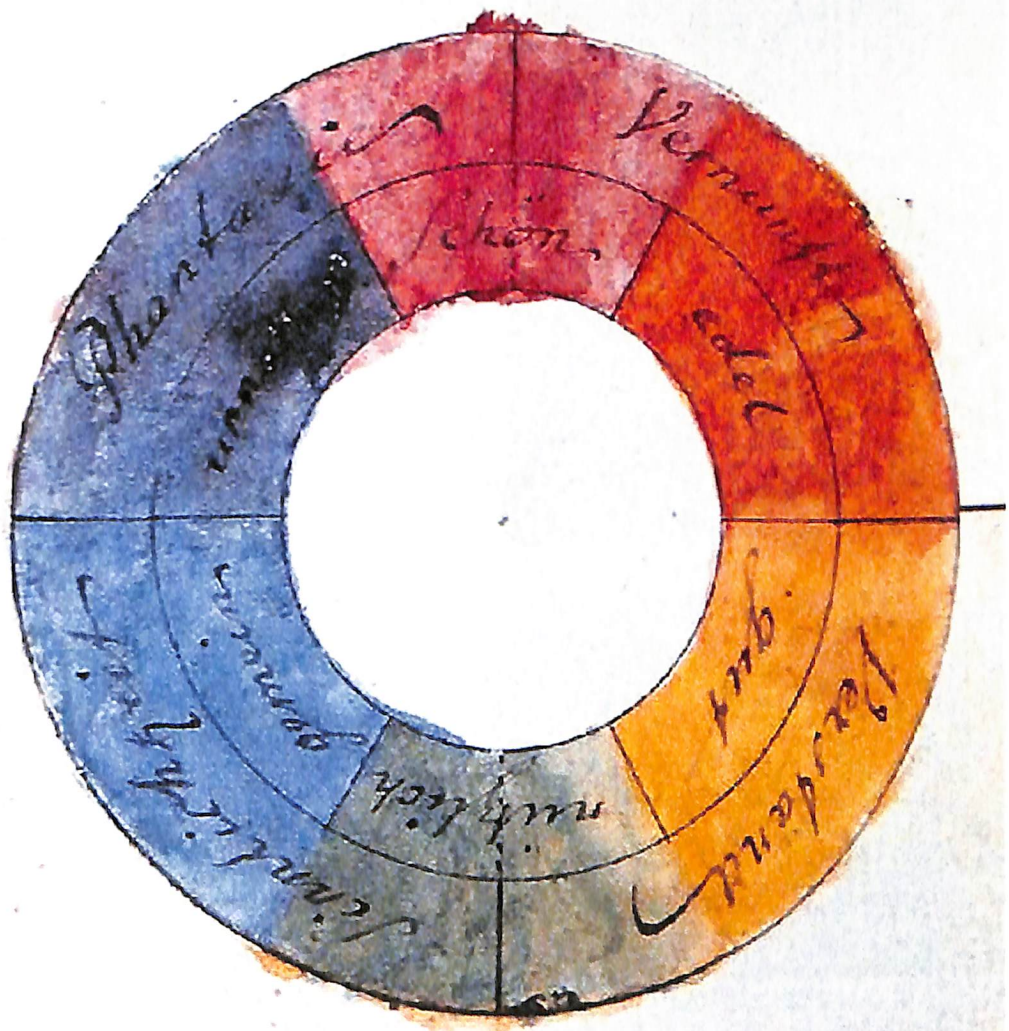


Figure 6. Johann Wolfgang von Goethe. Excerpt from *Theory of Colors*. 1810.

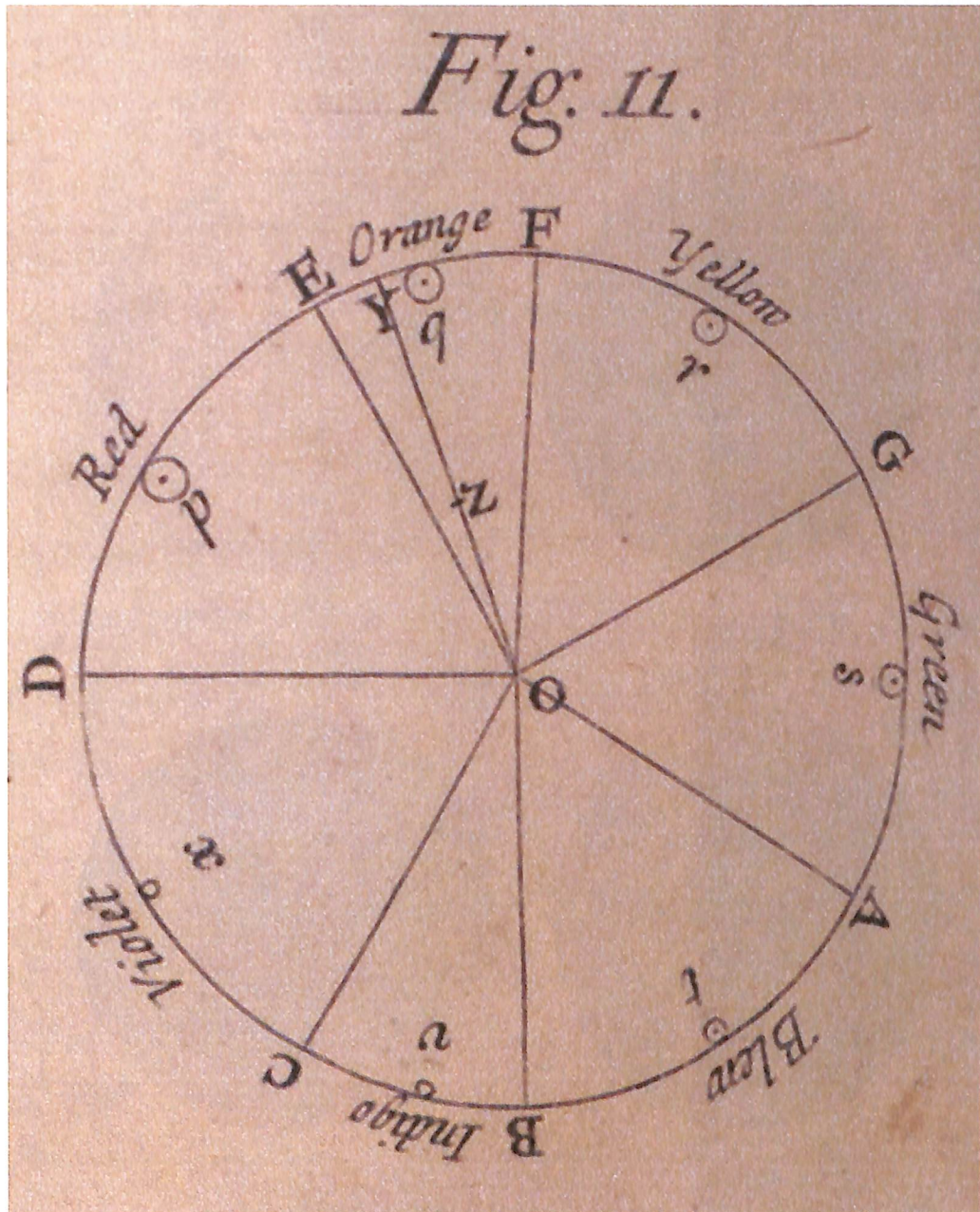


Figure 7. Isaac Newton. Excerpt from *Opticks*. 1704.

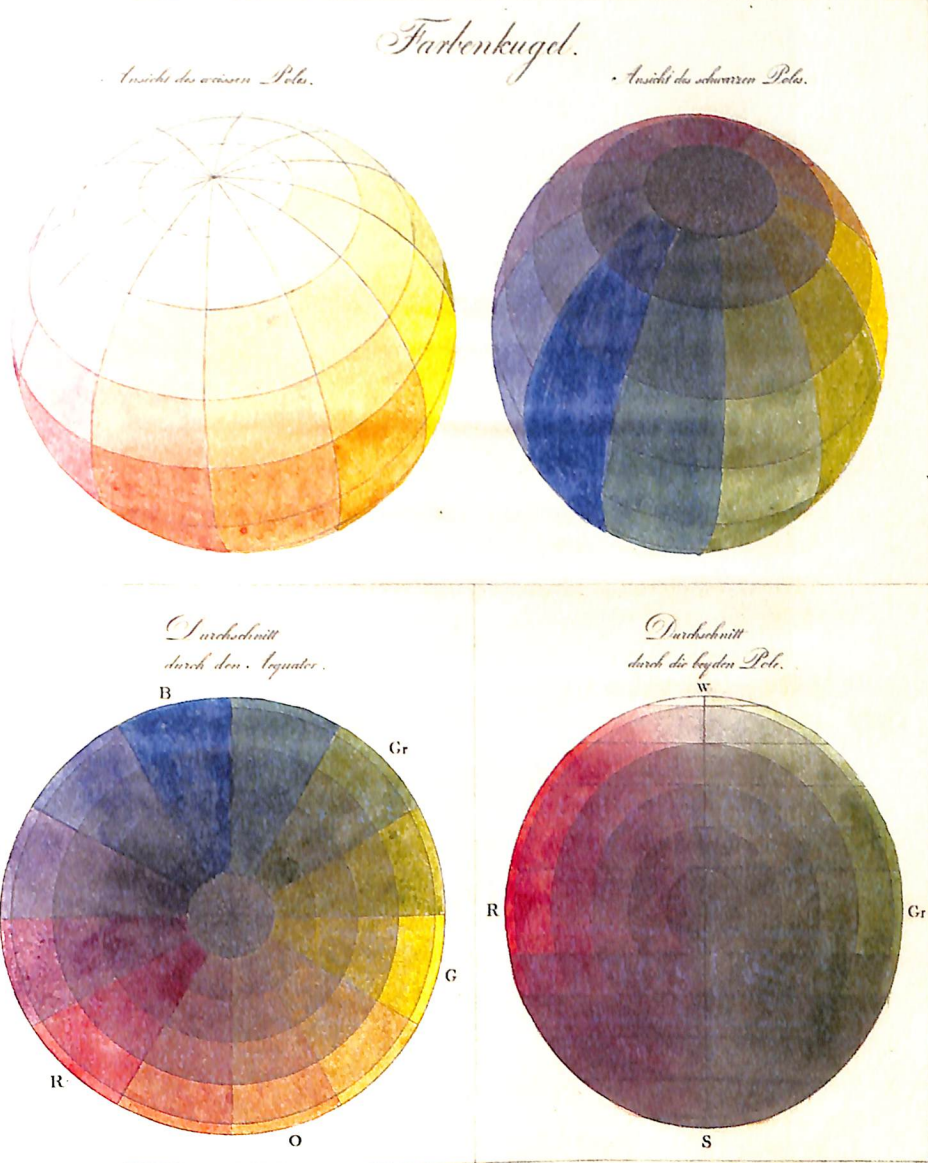


Figure 8. Philipp Otto Runge. *Farbenkugel*. 1810



Figure 9. J.M.W. Turner. *Light and Color (Goethe's Theory) – the Morning after the Deluge, Moses Writing the Book of Genesis*. Oil on canvas. 1843.



Figure 10. J.M.W. Turner. *Shade and Darkness – the Evening of the Deluge*. Oil on canvas. 1843.



Figure 11. Johannes Itten. Excerpt from *The Art of Color*. 1960.



Figure 12. Johannes Itten. Excerpt from *The Art of Color*. 1960.

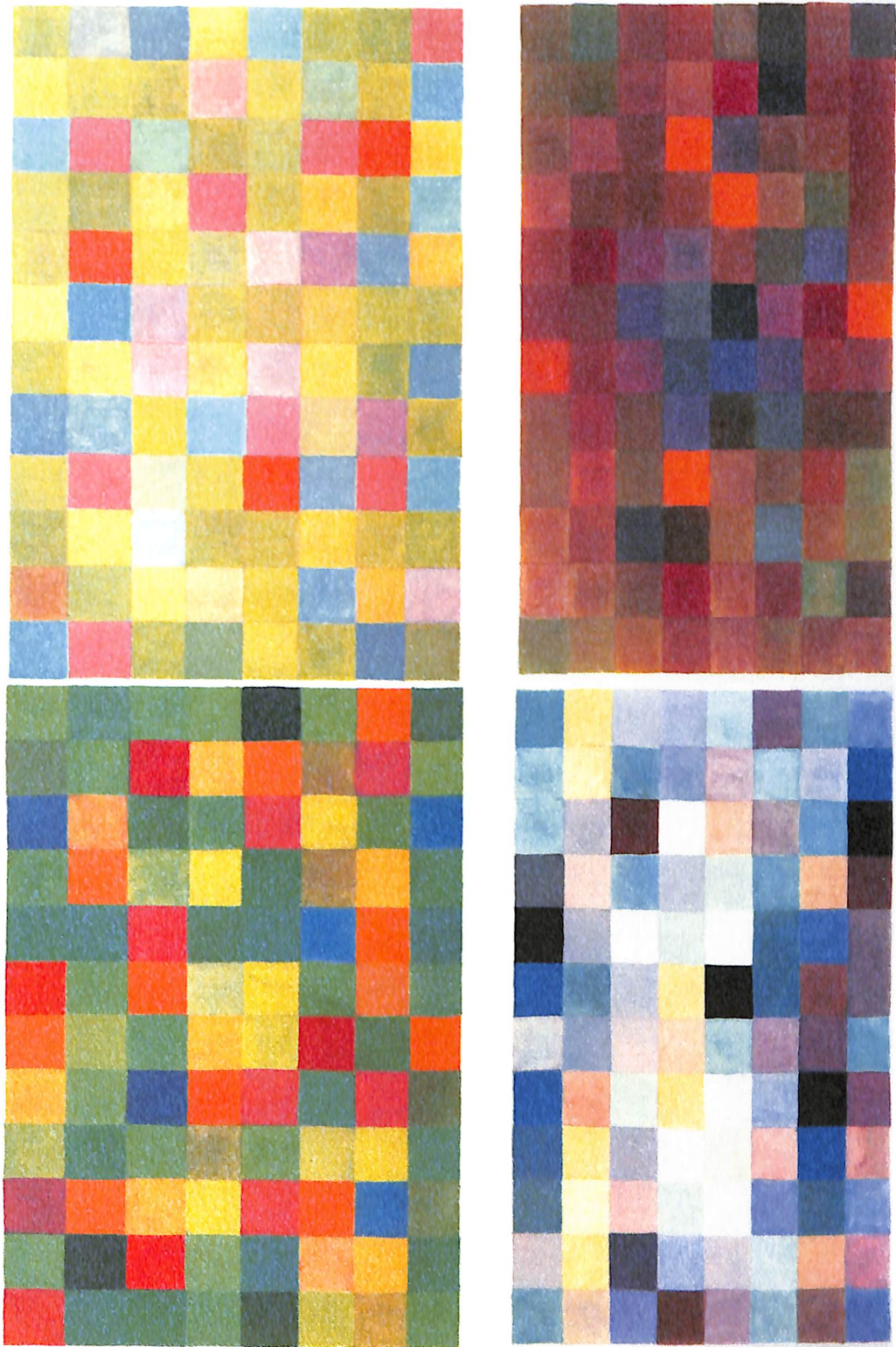


Figure 13. Student examples from *The Art of Color*. 1960.

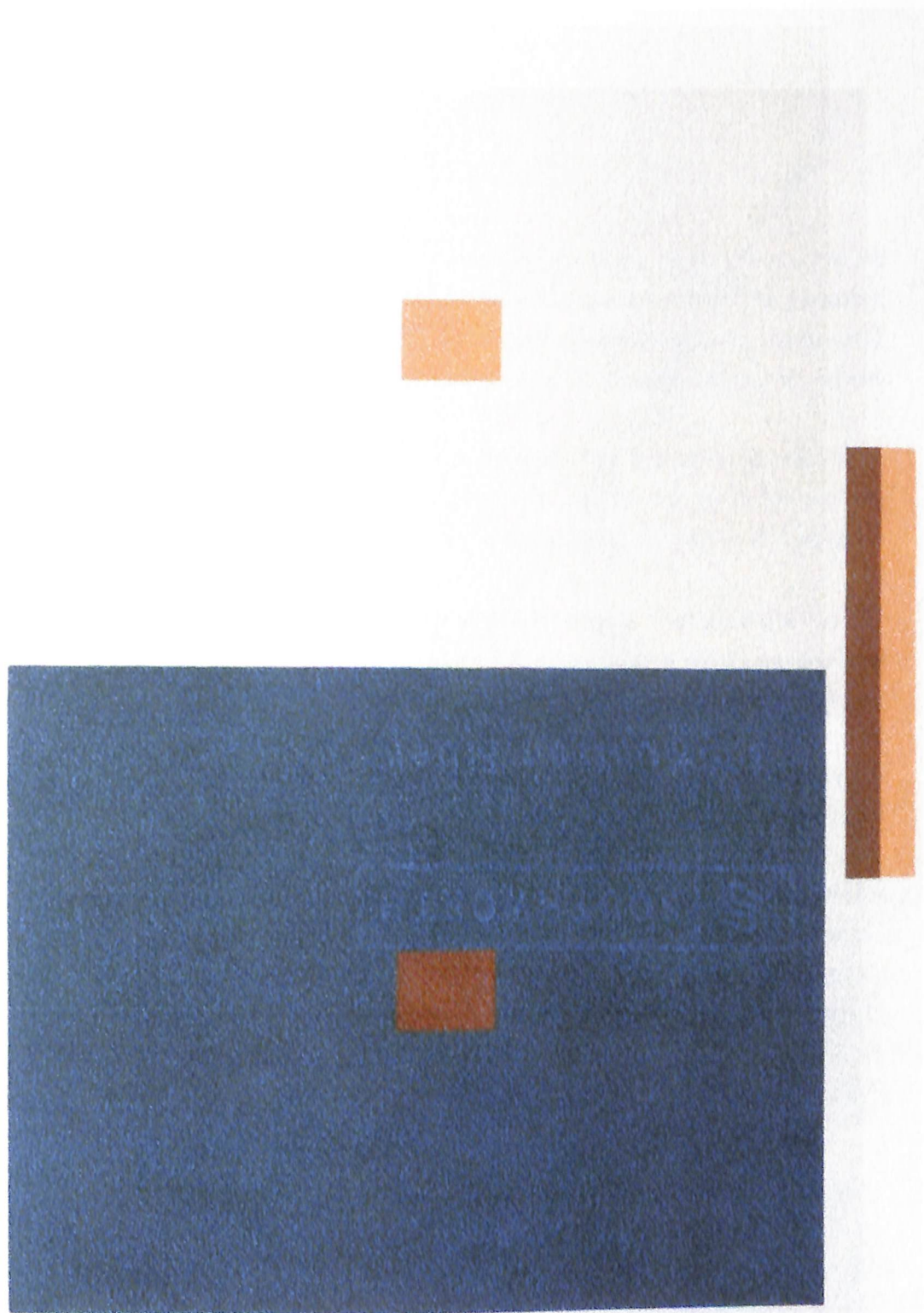


Figure 14. Josef Albers. Excerpt from *Interaction of Color*. 1963.

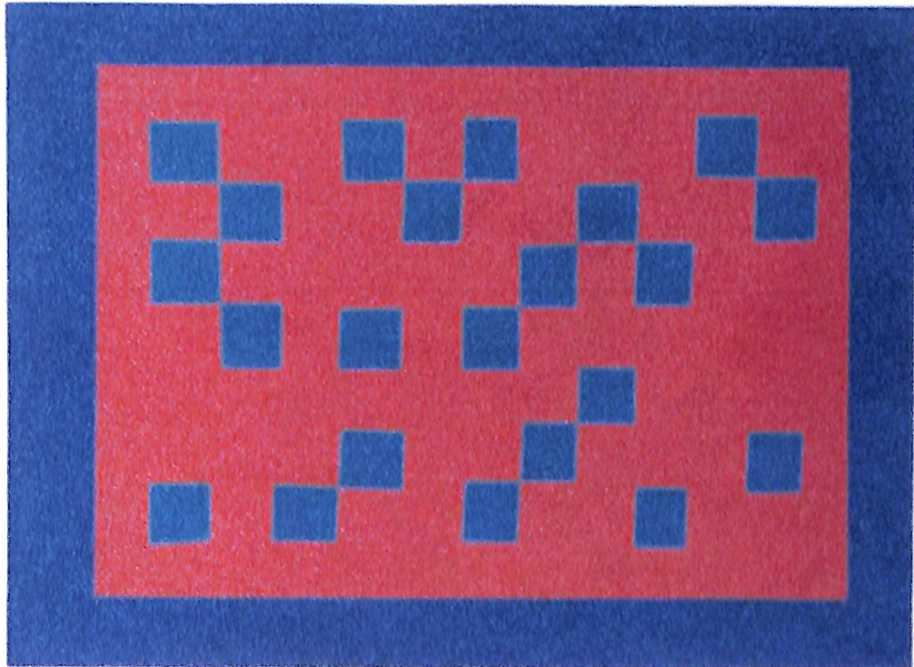
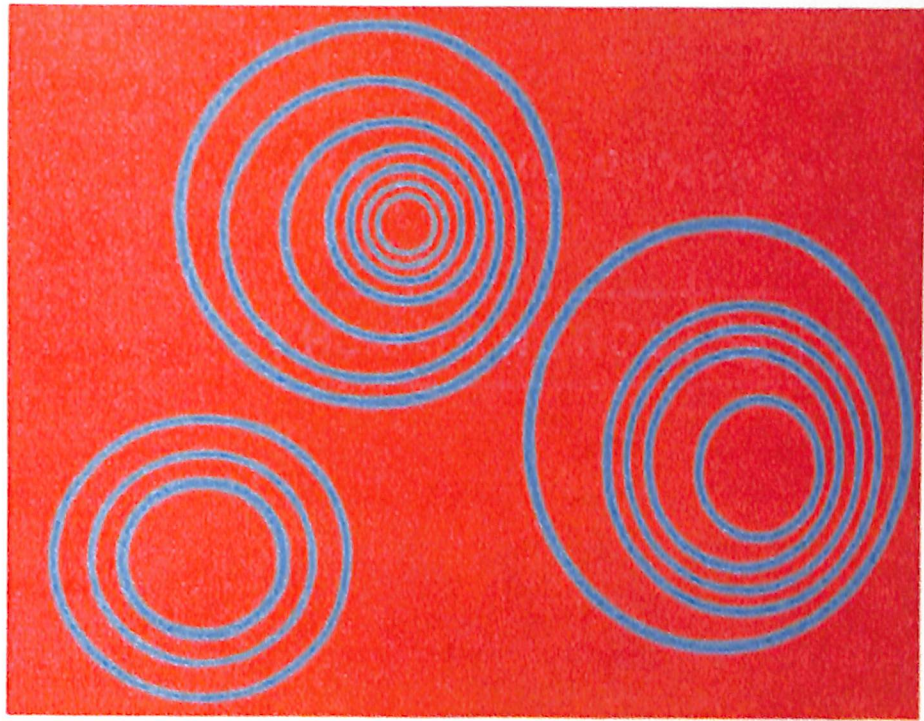


Figure 15. Josef Albers. Excerpt from *Interaction of Color*. 1963.

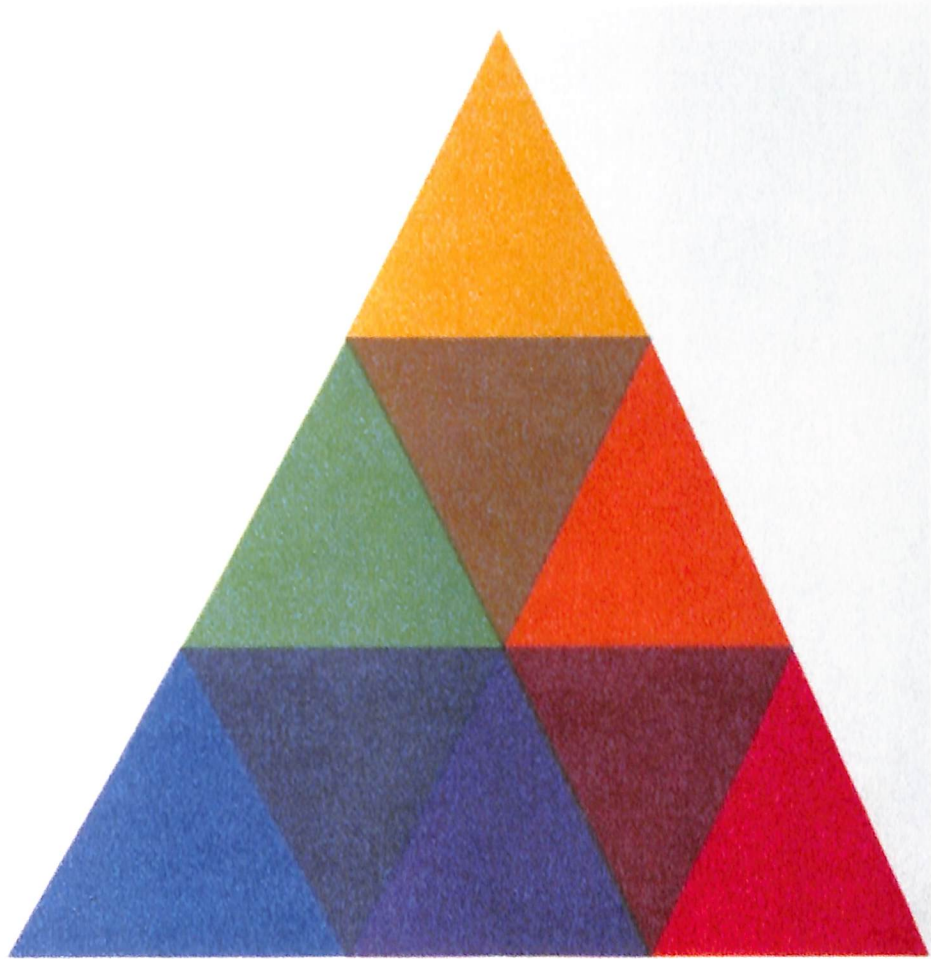


Figure 16. Josef Albers. Excerpt from *Interaction of Color*. 1963.