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# The Three-Dimensional Image of Chance 

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# Calvin Alexander McFarlane 

THESIS
SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF Master of Arts in Art

IN THE GRADUATE SCHOOL, EASTERN ILLINOIS UNIVERSITV CHARLESTON, ILLINOIS

1977
YEAR

I HEREBY RECOMMEND THIS THESIS BE ACCEPTED AS FULFILLING THIS PART OF THE GRADUATE DEGREE DTRO ABOVE

$7 / 21 / 1977$

## THE THREE-DIMENSIONAL

IMAGE OF CHANCE

## BY

CALVIN ALEXANDER MCFARLANE
B. A. in Art, Eastern Illinois University, 1976

## ABSTRACT OF A THESIS

Submitted in partial fulfillment of the requirements for the degree of Master of Arts in Art at the Graduate School of Eastern Illinois University

## CHARLESTON, ILLINOIS <br> 1977

In order to create a work of art that has, for an unknown observer, as great a variety of meanings and interpretations as possible; the work must be of the sort that will allow any random observer to project their own experience into the work as its meaning and/or interpretation. The work of art created must present to the viewer a rich experience of mutually exclusive associations. For the work to be unlimited in associations, it must be free from any intentionally representative imagery on the part of the artist. In other words, the work should be abstract to the degree of non-objectivity.

Non-objective art form is capable of conveying a wide variety of mutually exclusive sensations, meanings and abstract concepts by association in a single piece of work. The non-objective artist's concern is with the elements of visual art (color, shape, line, etc.) and with the creation of an art form that is merely the presentation of these elements. Associations are inevitable events, no matter how vague or indiscreet they may be. This is made possible by the way in which we see things according to their visual characteristics. These visual characteristics are synonymous with the elements of visual art. If they are used in such a manner as to have no direct orientation with the representation of some particular aspect of our environment or one's experience, then the work of art can be said to be non-objective.

Because of the close association between the visual characteristics of what we see and the elements of visual art, non-objective form is easily associated with some aspect of the viewer's experience even if only in the most elusive fashion of having been left in the emotive
state, undefined and/or undefinable by reason. The variety of associations made possible by the work should be as infinite as the number of observers. Obviously, then, the artist whose goal it is to create such a work of art as this must concentrate his/her efforts on methodology by leaving meaning, interpretation, intellectual discourse, and the configuration of imagery to chance or accidental events. The artist must work according to a system that has absolutely nothing to do with the direct representation of anything in particular, but, has everything to do with something in general. This is non-objective expression and it is this expression that causes the work to communicate in the fashion of an art form.

I call this the Image of Chance. The Three-dimensional Image of
Chance is that expression which exists in all possible dimensions.

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Here is an event, how often will it be found to be produced by some one particular kind of cause?

John Venn

## PREFACE

Seven years ago I discovered what $I$ now know to be an image of chance. I was working on a painting which was a still-life assignment. The painting, $I$ felt, was miserable failure. My inability to attain a satisfactory likeness of the subject matter caused me to turn my attention to the tactile qualities of the paint. A careful scrutiny of the surface gave me cause to celebrate for within the texture I imagined seeing a wide assortment of configurations which seemed to be within the limits of my skill. I felt quite justified in what $I$ was doing because I could handle the configurations skillfully and thereby produce a finished piece of work. There were no "artistic" or aesthetic concerns on my part, at least not to the best of my knowledge. I was unaware of DaVinci's "aid to invention," also, the work of Max Emst and other reference material related to my "discovery." I had no reference point and pursued the image of chance from a production point of view, hence, "a new means of personal expression." The concept of a three-dimensional image of chance is the culmination of that experience. This thesis attempts to theoretically define that concept and it is basically the documentation of a theory which may or may not be a valid contribution to art and art's history.

It is not my contention here to argue over the definition of art and $I$ have no intention of trying to validate the concept of a threedimensional image of chance as being a viable art form. It is obvious to any student of art history that art has defined itself, redefined itself
and today has as many definitions as there are artists to expound upon them. As Albert E. Elsen has so aptly said it, "art is probably the most elastic word ever invented by man. "1 It is expected that the reader of this thesis will accept without further argument that, if there is a definition of art that exists for all to understand in common, it must be something like: art is profound expression which is given a material substance. The final decision as to the material substance of the expression is the responsibility of the artist. It is because of this sense of finality that the fine arts are so particularly rich in aesthetic experience. Imagine the writer who, pen in hand, places words on paper to be read. Imagine the painter or sculptor who manipulates your vision directly through the media. It is the degree of closeness between artist and spectator that causes certain creations of mankind to posses an expressiveness so profound and powerful that it is separated from the rest, catalogued, categorized and entitled art. The Three-dimensional Image of Chance is one's own interpretation. There is nothing closer.
${ }^{1}$ Albert E. E1sen, Purposes of Art, (Holt, Rinehart \& Winston Inc., N. Y., 1972), P. 426 .

## INTRODUCTION

The Three-dimensional Image of Chance is a conditioned response to structure. The response is conditioned by the experience and perception of the observer. In the case of creating a sculptural art form, the structure is necessarily the responsibility of the artist. Consequently, the means of making, from step one to the finish is also a matter of this conditioned response. The response on the part of the artist is not one that depends only on the finished work. If it were so, preliminary sketches would suffice and the actual construction of the image would be unnecessary and in no way a matter of chance in three dimensions. The work of art is the response. Parts to whole, relationship to relationship, each and every aspect has been a matter of the artist's associations in response to form and structure.

The characteristics of the elements employed to create are the cause of visual sensation and mental response. The sensory information is unified in the mind as an association thereby giving the appearance of an undefined and remote image. ${ }^{2}$ The work of art stands as the image of that association and is coincidental to the information or sensory data given. It is a subjective response that determines the image and the image is that of the association. The association incurred is accidental. The image is a product of chance.
${ }^{2}$ Aniela Jaffe, "Symbolism in the Visual Arts" in Man and His Symbols, ed. by Carl G. Jung, (Doubleday \& Co. Inc., Garden City, N. Y., 1964), p.260; it is here noted by Jaffe that it is the unconscious that conjurs up the pictures in the "chance configuration of things."

## VISUAL ART AND CHANCE

Art gives man a different and unique way of looking at things. Through art we are able to abstract the nature of our existence and thereby arrive at an as definite a reason for existence as can be held outside the fields of religion and the physical sciences. With the visual arts the communication of ideas is completely dependent on an array of elements that are defined only by their appearances, hence, visual art. These elements are absolutely anything that can be seen. To commicate ideas using a visual stimulus (the work of art), one must either have an idea in mind (an objective or abstract art form) or leave the comunication of ideas to chance, accident and association (non-objective form). An objective art form is intended to communicate certain information in a particularly finite manner. Abstract art communicates certain information metaphorically; intending to substitute one thing for another. Nonobjective art intentionally and/or unintentionally commencates a wide variety of mutually exclusive information in one piece of work.

Throughout history, creators, historians and critics of art have speculated on the intrinsic value of art and especially on those factors or elements which seem to be eminent in the conveying of art's ideas. There is no doubt that no matter what the intent or purpose of the art form, it is always comprised of certain elements selected from a wide variety of possibilities. The possible elements for the visual arts are color (hue, intensity, value), shape, size, form, volume, mass, space,
surface quality, line and of course, signs and symbols. ${ }^{3}$ The elements vary according to intent and purpose. They are relative to the idea communicated. Intent or purpose allows one to select from all the possible elements and all variable degrees those which are applicable to the intent or purpose in mind. The selected elements are then realized in the work of art as its structure through which the intent or purpose is fulfilled and manifested as the visual statement. The mind, in accepting the visual statement, forms an idea. If the artist has no predetermined idea or image in mind then any element within the structure of the work is a manifestation of itself. Any idea communicated would make the work of art an image of chance.

The science of probability is not a physical science. Chance is the term applied to a grouping of possibilities. Each possibility has a probability factor which ranges between 0 and 1 . The closer the probability is to 1 , the more likelihood the possibility has of occurring. Chance, therefore, does not exist in physical reality. It is purely conceptual. The occurrence of an event is not chance. Chance is all the possible ways in which an event can occur. All the causes of such an occurrence will determine the probability of it happening in any particular way.
${ }^{3}$ In regards to non-objective art forms which make no frequent use of established signs or symbols, George Rickey in Constructivism - Origins and Evolution; (G. Braziller, N. Y., 1967, p.41), states that "because nothing is more concrete, more real than a line, a color, a surface . . . a woman, a tree, a cow are concrete in the natural state, but in the context of a painting they are abstract, illusory, vague, speculative while a plane is a plane, a line is a line, nothing less, nothing more."

The visual work of art that has had no predetermined idea or image in its making other than the disposition of the various elements is nonobjective only in the sense that its objective is not external to art itself. A work of art of this character has as an objective the communication of ideas about line, shape, form, color, etc. ${ }^{4}$ The problem with calling this art form non-objective is that none of the elements can be completely disassociated from their appearances in nature except for line which does not exist in nature but is an invention of man. The elements are concepts which have a relatively infinite array of possible appearances in physical reality. Their appearance is always definitive. They each define their concept as they appear, or, by their appearances either in nature as a natural phenomenon or in the imagination of man and, subsequently, are manifested in his creations. ${ }^{5}$ The elements of visual art are truly universal concepts; their appearances being always relative to intent, purpose of their phenomenal existence in nature.

Color, line, shape, etc., are variable according to how and where and when (i.e. movement) they physically exist. If an artist's concern is only with the presentation of these visual elements, then the art form created is non-objective in that it commicates only on the level of

[^0]visual experience. The work has nothing to do with factors external to their purely visual state. Anything further conceived from the work of art, whether on the part of the artist or any random observer, is an abstraction of something external to the work. In this way, the work embodies an association for the observer. If the work of art has not had a particular abstraction as an intrinsic aspect of its creation then the work is non-objective. It lacks the intent and purpose of commnicating non-visual ideas other than the artist's conceptual interest in the elements of art. If an observer sees in a work of art something other than its intended purpose and this visual sensation is abstracted by the mind as an idea of something else, then, this response is accidental. The response is an association based on the universality of the visual elements It is a matter of coincidence, accident and chance.

John Venn, in the fourth edition of The Logic of Chance, discusses the inevitability of an event "however unlikely" it may be. The example he gives is appropriately analogous to the forming of associations from a non-objective, visual stimulus structure. He states:

Suppose that one letter at a time is drawn from a bag which contains them all, and is then replaced. If the letters were written down one after another as they occurred, it would commonly be expected that they would never arrange themselves into words of any language known to men. No more they would in general, but it is a commonly accepted result of the theory . . . that, if the process were continued long enough, words making sense would appear; nay more, that any book we chose to mention . . . would be produced in this way at last! ${ }^{6}$

By substituting the visual elements of art for the letters of the alpha-
${ }^{6}$ John Venn, The Logic of Chance, (Chelsea Pub. Co., N. Y., 1962), p. 353.
bet, the inevitable event will be an association between the combination of visual elements and some other aspect of the viewer's experience. This is the Image of Chance.

By placing the elements of art in chance's universe, the process of creating a non-objective, visual stimulus structure becomes a random one. ${ }^{7}$ The combinations of elements are the possible events having a likelihood of occurring. Any association of a combination with something external to chance's universe constitutes an accident. Chance, then, in this sense becomes infinite. The infinity of the matter is relative to the number of different lines, colors, shapes, etc., that one is able to imagine or create. The possible variances of a line, a shape and so on, plus the combinations of these variances, are infinite and limited only by the imagination, vision and resources of the artist.


Fig.l Max Ernst . . "The Eye of Silence" Here Ernst uses "accidental" effects to intentionally give the illusion of textures in nature. This is the surrealistic tendency to define associations according to some immediate notation. For instance, Ernst has gone so far as to turn these "accidental" effects into something of a traditional type of landscape painting.

## CHANCE, IMAGE AND ASSOCIATION

The conceptual definition of a three-dimensional image of chance is reliant on the definitions of "chance" and "image of chance." It is necessary to convey these concepts in terms of their application in the creation of art. As a means chance is continuous. It is a continuous random process. Chance is not only all the variables but, also, all of the possible combination of variables. If an accident is used within the context of a work of art where the accident is one within a combination of other elements comprising the work (see Fig. 1), then the work as a whole makes use of an accident but is not necessarily of chance. For a work to be a product of chance, it must have evolved through a series or succession of accidents. Chance, then, is also the subject and the work is objectively undescriptive of anything else in particular. George Rickey in Constructivism defines chance this way as a random process:
"Random processes are but another instance of order. Just as laws of probability make predictable order out of chance, so the laws of chance can provide for the artist a visual order out of chance . . . completely independent of either imitation of nature or the limitation and bias of his own invention." 8

In other words, chance is no accident but accident is a-matter of chance; it's chance of happening. Rudolph Arnheim in his book Towards a Psychol-
$8_{\text {George Rickey, Constructivism, }}$ p. 158.
John Venn in The Logic of Chance defines the concept "random" as "aggregate order and individual irregularity (or apparent irregularity)" and he defines the verbology of the concept (i.e. at random) as "to point out the aimless character . . . contrasting it with the definite intention to hit a certain mark." p. 96-7.


Fig. 2 Calvin McFarlane . . "Liberty" Sculptural mass insinuates itself in space because of it's actual presense, thereby, incorporating space as an element either as negative space or surrounding space.
ogy of Art, discussing "Accident and the Necessity of Art" states that "accident always refers to relations, and when we call a relationship accidental we express our belief that it did not come about through a direct cause-and-effect connection." 9 One must be able to ascribe to the relationship an assortment of other possibilities. All of these possibilities grouped together constitutes the universe of chance. The flat plane is where the universe of chance can be manifested as a twodimensional work of art. The three-dimensional universe of chance is within the limits of sculptural mass and its extension into space (see Fig. 2) .

The image of chance is born within the limits of this universe and is defined visually by the series or succession of accidents and their relationships which physically exist and happen in this universe of chance. The concept of an image always carries with it the understanding "image of." An image is anything that communicates the idea of something else. It is representative. An image that is formed from a series of accidental relationships, an image of chance, is perceived as such through its power to be associated with other criteria (the "of") external to its objective characteristics. The objective characteristics correspond to the elements of visual art. 10
${ }^{9}$ Rudolph Arnheim, Towards a Psychology of Art, (University of Cal. Press, Berkeley, 1966), p.164.
${ }^{10}$ This association is between what Jaffe calls "the outer and inner aspects of one and the same reality behind appearances." Man and His Symbols, Carl G. Jung, ed., p. 261.


Fig. 3 Paul Klee . . "Strange Plants"

Paul Klee made a life-long investivation of these objective characteristics as they were to be found in nature. He discovered a certain universality of line, shape and texture. Applying his discoveries to his work, he in this way created drawings and paintings which resembled the randommess of nature (see Fig. 3). "Form production," as he so called it, was for the artist a matter of applying these objective characteristics (i.e. the elements of art) to which he had formulated a theory. ${ }^{11} \mathrm{He}$ concluded that regardless how one makes use of these elements there is to be found a "gradual growth . . . into images which, in the abstract, may be called constructions, but which, seen concretely may be named each after the association which they have prompted." Klee also concluded that "these associative properties of the structure, once exposed and labeled, no longer correspond wholly to the direct will of the artist."12 Such associations are purely a matter of chance.

To define a work of art as an image of chance where chance is the subject and not a means to an end not of chance, the matter of association is a determining factor. It is necessary to distinguish the subject from the means, or, the subject as the means. For a work of art to be an image of chance, its associative properties must not reach beyond the limits of its structure. In other words, the subject is the means or the means is the subject. The association should be incomprehensible or unrecognizable. It should be visually defined but not labeled or named as

[^1]in the case of the illustration on page seven of this text. Anything else would elevate the association to the position of subject matter where chance is the means (see Fig. 1). An image of chance has chance as its subject matter as well as its means. The process of human perception has three distinct events which are sensation, memory and association. 13 For an accidental formation to qualify as an image of chance, it must present to the observer the first two events only. If it extends beyond sensation and memory then the activity or method of chance is lost to the work as a whole. It lacks the sense of possibility. What could have been an image of chance would then be an image from chance which figuratively overpowers the method. The work of art would then be comprehended in terms of the association and not as a work of art which was an image of chance.

The absence of association is relatively impossible. In Psychology of the Arts the authors note that "form stripped of explicit object references may stimulate even more associations and greater variety than forms suggestive of specific objects."14 Basic forms or pure forms are the building blocks of sculpture which have been "stripped of their explicit object references." In this way they are basic and pure. The combination of basic form to basic form, to basic form and so on, will increase the chance, or, preferably, the likelihood of a particularized association being conjured up in the mind of the observer. Armheim
$13_{\text {Hermann Rorshach, Psychodiagnostics, (Grume \& Stratton, N. Y., }}$ 1942), p. 17.

14 Hans Kreitler and Shulamith Kreitler, Psychology of the Arts, (Duke University Press, Durham, N. C., 1972), P.l10.
states that "a visual pattern is organized by the mind in such a way that the simplest, most regular, most symetrical structure results." ${ }^{15}$ One must seek a minimum of associations in order for the work to exist as the artist's idea of what it is. It seems obvious that a structure of complex intricacies would make it quite possible for any random observer to assimilate fundamental aspects with their own ideas (i.e. Rorshach ink blots). ${ }^{16}$ If the artist presents only those elements that are fundamental to the associations and meanings he/she have in mind, it can be said that the work is presented as the artist's personal statement.
${ }^{15}$ Arnheim, Towards a Psychology of Art, p. 92.
16 For purposes of diagnosis, Rorshach made his ink blots bi-laterally symetrical so the various responses could be more easily categorized and compared (see reference in note thirteen, page thirteen of this text).


Fig. 4 Calvin McFarlane . . "Stationary Flight"

## THE THIRD DIMENSION

To call an image three-dimensional is to say that it takes up actual space and does not portray illusionistic space alone. The Threedimensional Image of Chance has mass with volume. Realizing the image although does not necessarily partake of mass with volume and can be a matter of vision on a single plane. This particular aspect of realizing the image or associating the construction can be in conjunction with a single vantage point which extends itself spatially according to rules of perspective (see Fig. 4). Agnes Rindge in Sculpture says that:
"If we examine the nature of sculpture we shall find it to be a compound of surface, texture and volume. By these general descriptive terms were indicate that we receive a combination of visual and tactile stimuli from a work of sculpture. Because of the physical makeup of the human eye we receive from all objects seen a two dimensional visual image. But from other forms of sense experience we know three dimensions and very intimately, indeed, since we have the sense of ourselves as three dimensional. ${ }^{17}$

Kreitler and Kreitler, the authors of Psychology of the Arts, note also that:
"On the one hand, there is form, which, depending on the angle of vision, may be seen either as plane or as cubic, and on the other hand, there is space, which though always present, is impellingly conjured up when the third dimension is added to a surface."18
${ }^{17}$ Agnes Rindge, Sculpture, (Payson \& Clarke 1td., N. Y., 1929), p.3. 18 Kreitler and Kreitler, Psychology of the Arts, p. 187.

And, furthermore, that "the perception of form and space is simultaneous and is frequently based on cues which are not only common to the two but are also developmentally interdependent and mutually co-determining."19 The Three-dimensional Image of Chance is seen according to the associative properties of its relationships. This associative property must be in accord with the sculptural principle of continuity in space. The image must exist in space as that particular association. It must not have been derived from an association or it is not a three-dimensional image of chance.

Constructivist theories of sculpture state that the image in constructivism "does not depend on any recollected experiences, event, or observed object, nor on any kind of association or suggestion, nor on projection of experience onto an evocative form . . . The image is premeditated and deliberate and precisely adjusted."20 Whereas, the Threedimensional Image of Chance is theoretically the complete antithesis of this definition, except for the matter of "deliberation" and adjustment. The "projection of experience" adjusts the observer's perception of sculptural form in order to associate the form in question as an image. Deliberation on the part of the artist and any random observer is inevitable. The deliberation is not necessarily a positive response which leads to association. It is quite natural to find no relevant association available to the observer. This amounts to a rejection of the form. Constructivist theory also states that "there are no symbols" involved
${ }^{19}$ Kreitler and Kreitler, Psychology of the Arts, p. 187. 20 Rickey, Constructivism, p. 38 .
and the work is "free of symbolic representation." 21 A work of art, once associated by an observer as some aspect of experience, subsequently becomes an image of that experience and, in a sense, its symbol.

Principles of formation that are based on the simplest of forms are the guidelines for creating a non-objective, visual stimulus structure as a three-dimensional image of chance. The principles can be clearly stated as follows: Any complex form or shape can be broken down to its simplest elements, or simpler forms or shapes. This is the rule of simplicity which states that the simplest element creates the more complex structure. In drawing one would use the line or, perhaps, a dot would suffice. In sculpture there is basic form to be found as the purest and simplest element. A form that is not basic can be broken down or dissected into sections that constitute basic form. These basic forms are common to all things that possess mass and volume. Mass and volume are basic assumptions of sculpture, hence, Sculpture's domain. The process of construction is theoretically more functional for Sculpture's domain to be chance's universe where accidental relationships and their inherent associations are manipulated as the means for the creation of art.

Construction, definitively speaking, is a matter of structure. The Three-dimensional Image of Chance is structured by accidental relationships which have stimulated a particular association in the mind of the builder of the visual stimulus. To visualize the Three-dimensional Image of Chance is at the same time to construct or activate it in terms of its formation (the visual stimulus itself). The process has three steps and,

[^2]

Fig. 5 Pablo Picasso . . ."Bull's Head"
for the most part, goes as follows: 1) a single form. 2) this single form in relation to another form (which may be a duplicate or otherwise). 3) a response to the relationship, whereupon, a rejection or acceptance incurs based on association. Arnheim states:
'The perceived pattern will determine what object is seen. But familiarity with, need for, or expectation of a given object may also help determine - within the range of freedom offered by ambiguous stimulus structure - the kind of pattern that is perceived."22

Kreitler and Kreitler consider "meaning" necessary to response and that "these meanings include not only associations to objects and situations but also sensations, moods and feelings, abstract concepts, metaphors and symbols."23 The Three-dimensional Image of Chance is the construction of an association manifested by a non-objective, visual stimulus structure. This association can be seen in terms of a series or succession of accidental relationships in which case the three steps are repeated in conjunction with the initial relationship. Otherwise the construction is complete as an association with just the three steps and nothing more (see Fig. 5).

The process of constructing the Three-dimensional Image of Chance as a particular association to exist in space, on the most part, takes place in the mind of the artist. It is a matter of imagining what the various combinations of forms will look like. The rejection or acceptance is done on this basis according to their power to stimulate a response. Kreitler and Kreitler note that acceptance is a matter of the combination

[^3]of forms' "potentiality to evoke tension and relief when they are contemplated maximally stripped of meanings, object references, and color differences."24 Arnheim notes that "the objective expressive properties of the stimulus can be compared with what the individual observers report seeing."25

The elements of sculpture are mass, volume, plane, line, surface quality, space and color. If each of these elements can be ascribed to a single piece of material substance as its objective characteristics, then this substance is said to have form. J. J. Kelly in The Sculptural Idea calls such a listing "the vocabulary of form" and, furthermore, that sculptural form "is the utilization of various techniques to impose on matter a unity of idea and image that is a new sculptural reality."26 The non-objective, visual stimulus structure which presents a threedimensional image of chance is always a "new sculptural reality." In this sense it unified the idea of the artist or random observer in an associative capacity as the image of its structure. The image of its structure is the image of chance due to the method of construction, and, due to the definition of structure itself. Kelly defines structure as "the interrelationship of parts to the whole." ${ }^{27}$ The interrelationships of a three-dimensional image of chance are the accidental relationships in the combination of various elements of form during construction. The parts as they relate to the whole define the image of chance. The idea

[^4]is embodied within the associations made with the structure. The image is, then, from chance and three-dimensional.

Associations are subjective and lack the definition necessary to make them generally significant. They correspond only to the idea of the observer and, then, only at the time of visual sensation. ${ }^{28}$ Arnheim notes that "subjective responses are possible when the perceived pattern (or patterns) can be seen as an image of more than one object." He goes on to say that:
> "The possibility of subjective responses does not alter the fact that the stimslus in itself is a perceptual entity that can be defined objectively by measurable shape, size, proportion, orientation, color, etc. The rules of visual organization derive from such objective properties, and their application can produce an objectively valid result which is not just the investigator's personal Rorshach."29

${ }^{28}$ Carl G. Jung states that "consciousness can keep only a few images in full clarity at one time, and even this clarity fluctuates." in "Approaching the Unconscious" in Man and His Symbols, ed. by Jung, p. 34 .
${ }^{29}$ Arnheim, Towards a Psychology of Art, p. 92.

## CONCLUSION

Chance or accident could not have taken on the prevalence it has today in the art world without the liberating force of a non-objective art style. Take for example Immanuel Kant who said in 1790 that "the thought of something as end must be present, or else its product would not be ascribed to an art at all, but would be a mere product of chance. ${ }^{30}$ Conversely speaking, George Rickey in his book Constructivism which was published in 1967 , states:
> 'Decisions as to form, as to the disposition of components, even the choice of hue and the placement of color, can be put by the artist outside his authority and personal preference, and submitted to that other law. Abdicating authority in favor of chance he can choose not to choose."

Rickey goes on to say, "chance itself . . . becomes both the subject of the work and the means."31 A great deal of contemporary sculpture is abstract in its presentation. There is a greater percentage of this abstract sculpture that is completely non-objective in its approach to form. Such non-objective, scul tural form or pure form, can in combinations which amount to constructions, be associated with an infinite variety of recognizable aspects of the natural world. Pure form itself or basic sculptural form has no precedence in nature. All natural form can be broken down into sculptural or pure form excluding, to the best of mankind's knowledge, the nuclear structure of the universe which is the
${ }^{30}$ Immanue1 Kant, "Fine Art is the Art of Genius" in Neoclassicism and Romanticism 1750-1850 Sources and Documents, Vo1. 1 ed. by Lorenz Eitner, (Prentice Hall Inc., Englewood Cliffs, N. J., 1970), p.99. $31_{\text {Rickey, Constructivism, }}^{2}$ Pp.157-8.
precedent of it all. Pure sculptural form can be left to chance (selection, connection and location) and presented as an association with the natural world. This is the Three-dimensional Image of Chance.

Dore Ashton in her book Modern American Sculpture says that "the perfect form expresses something beyond its esthetic perfection." ${ }^{32}$ If the perfect form is equated with pure sculptural form, then "something beyond its esthetic perfection" must be in associations that are possible with the natural world or life itself. In this sense pure sculptural form is given expression where the expression relates directly or indirectly to man's environment, the natural world. This expression in order to be coummicated takes on, in the hands of the sculptor, the characteristics of an image.

32 Dore Ashton, Modern American Sculpture, (Harry H. Abrams Inc., N. Y., 1967), p. 26 .

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[^0]:    4Aniela Jaffe states that "pure abstraction has become an image of concrete nature," and, furthermore, the "utter abstraction of imaginative art has in a secret and surprising way become 'naturalistic,' its subject being elements of matter." - Jaffe, "Symbolism and the Visual Arts" in Man and His Symbols, ed. by Carl G. Jung, p. 265.
    $5^{\text {The point can be argued that man is not external to nature, but is }}$ a distinct member of its environment which, in this capacity, allows his creations to be as natural as, say, a tree growing.

[^1]:    ${ }^{11}$ Paul Klee, "Towards a theory of form production" in The Thinking Eye - Notebooks of Paul Klee, ed. by Jurg Spiller, (George Wittenbon, N. Y., 1961).
    ${ }^{12}$ Paul Klee, On Modern Art, (Faber \& Faber, London, 1948), p.31-7.

[^2]:    ${ }^{21}$ Rickey, Constructivism, p.38.

[^3]:    ${ }^{2}$ Arnheim, Towards a Psychology of Art, P. 92. 23 Kreitler and Kreitler, Psychology of the Arts, p. 111.

[^4]:    ${ }^{24}$ Kreitler and Kreitler, Psychology of the Arts, p. 81.
    25 Arnheim, Towards a Psychology of Art, p.100.
    26J. J. Kelly, The Sculptural Idea, (Burgess Pub. Co., Minneapolis, Minn. ${ }^{27}$ 1970), pp.40-1.
    ${ }^{37} \mathrm{Ke} 11 \mathrm{y}$, The Sculptural Idea, pp.40-1.

