

## Non-Verbal Communication: A Panel

NOTE: Newspaper reporters assigned to cover the 1963 International Conference on General Semantics at New York University had a great deal of sport with the program announcement of a panel of speakers on 'Non-Verbal Communication'.

The panel had developed from a statement by M. Kendig, then Director of the Institute, in a letter she wrote 22 October 1962 inviting Dr. Henri Laborit to give the annual Alfred Korzybski Memorial Lecture for 1963:

' . . . in line with my feelings about the multi-dimensional character of communication, I shall hope to mitigate the prevalent exclusive emphases on language and arrange to have the program include the presentation of some components and forms of non-verbal communication in the auditory, kinesthetic and visual fields, i.e., music, the dance, the visual arts including modern camera work, etc., which transcend the language barriers.'

The suggestion was accepted and a place was assigned on the program for the panel, the time allotted being necessarily limited by a full conference schedule.

M. Kendig acted as chairman. Panelists were: Charlotte Schuchardt Read, New York, 'Communication as "Contact".' Marian Van Tuyl, San Francisco, 'Dance as Non-Verbal Communication.' Allen Forte, New Haven, 'Music as a Means of Non-Verbal Communication.' Barbara Morgan, Scarsdale, N. Y., 'Aspects of Photographic Interpretation.' Lief Sjoberg and Paul Cox, New York, 'The Work of Charles Biederman,' read by Mr. Cox.

Related to this panel, an exhibition of twenty-four photographs by Nathan Lyons, Assistant Director, and Alice Andrews, Curatorial Assistant, George Eastman House, Rochester, N. Y., was on display throughout the conference. -- E. L. G.

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### COMMUNICATION AS 'CONTACT'

Charlotte Schuchardt Read, New York

'Distortions in listening and speaking effectively occur usually because of our reluctance to accept what is . . .' Dr. Dominick Barbara has said in The Art of Listening. When our own words get in our ears, our wishes get in our eyes, our expectations get in our muscles, our chances for getting close to what is going on are greatly reduced. This is not to speak against the values of words and wishes, expectations or fantasies, as they have their important place.

I like to consider communication as 'contact' or a 'coming in touch with'. We say sometimes that we are 'touched' by what some one has done, when the person has not physically touched us. Or we say we have been 'moved' by something -- perhaps a kind act. We feel then that we have been affected deeply, that, in a way, our whole organism has responded.

The readiness to receive an impact -- whether it be deeply felt from a great work of art, or of a more superficial nature -- the willingness to take in a message as it comes from our surroundings is reflected in all levels of our functioning. Although the whole nervous system participates in one way or another in our reactions, much of our available energy often goes toward setting up or maintaining barriers to communications. If we smell a rose with tight lips, for instance, are we fully taking in its fragrance?

In contrast to narrowing or limiting our perceptions, we may have attitudes of being open to our environment, and open to communications within ourselves. These also have physiological counterparts. There may be different postural patterns, different breathing rates or blood pressures, flexibility and ease of movement. We have a different physiological condition, affecting all our senses. There is a readiness to receive the new and strange, a sense of vitality and of being present. Such an attitude is related to what Maslow, in writing about 'the creative attitude', has called a kind of innocence of perceiving and behaving. 'Something of the sort has often been attributed to highly creative people,' he says. 'They are variously described as being naked in the situation, guileless, without a priori expectations, without "shoulds" or "oughts" . . . Children are more able to be receptive in this undemanding way. So are wise old people. And it appears now that we all may be more innocent in this style when we become "here-now".'

I believe that this feeling is involved in the ability to become 'silent on the objective level', in Korzybski's formulation, that is, on the level of sensing and feeling. This kind of 'silence', requiring 'innocence of perceiving', is at the base of our ability to receive, including the receiving of sounds of words

from other people. We become more fully alive and responsive, and more open in all our senses. We come closer to putting into action the term 'organism-as-a-whole-in-an-environment'.

Such sensitivity or sharpened awareness can be developed in various ways. It involves a more physical type of awareness of our surroundings, and of ourselves, for one thing. For instance, as we walk along the street, can we feel our feet coming in touch with the sidewalk? Are we walking lightly, or are our heels digging into the pavement? Our manner of moving has much to do with our mood of the moment, as well as our general attitude, our orientation toward life. How do we give our hand when we shake hands with a new acquaintance, and how much do we let his handshake communicate to us? Is coffee just 'coffee', or do we let the taste of a particular cup of coffee be experienced? You may notice that I use language such as 'letting', or 'allowing', for such closer contact is a matter of 'allowing'. It cannot be forced any more than we will relax just by telling ourselves that we must relax or love some one by being ordered to.

We can learn, however, through practice to be more continuously aware of our sensations in touch with our environment, whether by way of our postures, movements, hearing, touching, seeing, smelling or tasting. We may ask, 'What goes into the feeling of "being present" in the "here-now"?' We have the expressions, 'Are you with it?' 'Are we all there?' I heard an outstanding musical conductor the other day say that if a conductor just would go through the motions of conducting, even if his motions were the right ones, the orchestra would fall apart. He wasn't in his move-

ments, he wasn't 'all there'. This is, of course, so essential also in the dance. In fact, it is what brings any communication alive.

Each of us on this panel has become more keenly responsive in some special way, through vision, through hearing musical sounds, sharpening of the kinesthetic sense, and so on. Each has carried what I say here to greater degree, probably, than most of us. Whether, because of increased sensitivity, we may be creators of artistic expressions, or the receivers, the communicative process takes both. When we have a new type of art, or a new-to-us expression from a culture different from our own, we have the additional factor of strangeness, which may be a help or a hindrance. Then, perhaps more than ever, we need the ability to try to receive its message without letting the fact of its strangeness get in the way.

What is said here in relation to communications in the form of arts applies no less to our ordinary contacts, as we continue to be challenged to come in closer rapport with the human being behind the utterance, and to allow the impact of a non-verbal expression to reach us and be felt by us in every moment of our living.

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#### REFERENCES

1. Barbara, Dominick. THE ART OF LISTENING, Charles C. Thomas, Springfield, Ill., 1958.
2. Maslow, Abraham. 'The Creative Attitude.' THE STRUCTURIST, No. 3, University of Saskatchewan, Saskatoon, Canada, 1963.

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### DANCE AS NON-VERBAL COMMUNICATION

Marian Van Tuyl, San Francisco

In the past few years we have had an increasing number of 'exports and imports' in dance in the areas of folk dance, ballet and modern dance -- enthusiastically received in many countries around the world. My hypothesis, which I am going to try to develop in the short time at my disposal, is that in the realm of non-verbal communication among the peoples throughout the world, dance is, par excellence, a medium of choice.

Individuals involved with dance -- performers, choreographers, teachers, students -- often speak in hyperbole, so great is their belief in the power of dance. A few examples will illustrate the point. Many years ago, a candidate for a master's degree in dance at a midwestern university wrote as the opening sentence of her thesis, 'Rhythm began in a rather large way with the planets.'

A dedicated folk dancer commented upon the difficulties encountered in a 'peace' conference in London during the Thirties, 'If the delegates to an international congress were brought together in sessions of folk dance instead of endless verbal wranglings there would be no wars.'

Isadora Duncan was convinced that every individual is born a dancer, but, to paraphrase Herbert Read: 'in most people it only lasts a few minutes.'

In the old spiritual which starts out, 'Joshua Fit the Battle of Jericho and the walls came tumbling down' we find, again, testimony to the power of rhythm. What was it that made the walls come tumbling down? As the song points out, and what is overlooked, 'the trumpets blew' and the concerted attack of power in rhythm was what tumbled the walls.

Another example -- the folk-saying, which has fascinated children for generations, that if all the soldiers in a column marched across a bridge in 'absolute' rhythm the bridge would collapse. In such a case we can be thankful for individual differences.

We have long been taught that human beings are endowed with five senses: sight, hearing, smell, taste, and touch. When a person was described as having a sixth sense, it was tantamount to saying that he possessed mystical powers. Actually, neurological studies show that the 'sixth sense' is composed of many other senses, the most important of which is kinesthesia or 'muscle-joint' sense. This kinesthetic sense is a characteristic of every human being, which, for example, enables him to be aware of the tallness of a tree, the majestic height of a mountain, the position of his arm in the dark, etc., etc. The infant's basic fear of falling which the psychologists attribute to an alarm reaction to lack of support, is felt by the baby through his inherent kinesthetic sense. (Parenthetically, a major problem in space research is the fact of weightlessness and its influence on the kinesthetic sense.) In our verbally-oriented cultures this powerful awareness has been the most neglected. A few years ago, Aldous Huxley came to Mills College in California, and delivered his lecture, 'Education in the Non-Verbal Humanities.' You can understand that those of us in the Dance Department in that liberal arts college were indeed thrilled to hear him speak about the fact that the shameful neglect of the training of the kinesthetic sense was depriving our young people of one of their most important potentials for awareness and communication. Choreographers especially appreciate the quotation from Emerson, 'Your actions speak so loudly, I cannot hear what you say.'

Korzybski used to warn us, 'never say never, and never say always' but I am tempted. Let us put it this way: It is an axiom (truism) that there are really only three things the human body can do in moving: bend, stretch and turn around, or, in other words, flex, extend and rotate. Motion is a basic characteristic of living organisms -- it comes 'naturally'. Rhythm is experienced 'naturally' -- the in and out rhythm of the breath, the 'lub-dup' of the heart beat -- steady and slow in calm, accelerated in excitement, the rhythm of the day succeeded by night, the rhythm of waves (is it every seventh one that marks the climax?), the rhythm of the lunar cycle, etc., etc. Human beings have these experiences of motion and rhythm in common.

Rhoda Kellogg, authority on child art, with a background of over thirty years' work in nursery schools with emphasis on pictorial art, has developed a theory of the biology of esthetics. A year or two ago she went around the world collecting drawings by children from

two to seven years old in many countries. Her conclusions, based on a collection of over a half million of these drawings may come to you as a surprise.\* Children all over the world make the same types of scribbings which develop into similar early drawings no matter to what culture or nationality they belong. It is only later, when the individual culture is imposed on the child, that the separate cultural characteristics of art production appear. The point is made that people must be taught to be different.

Although such an extensive study as that done by Mrs. Kellogg has not been conducted in the area of basic movement, it would appear that the findings could be transposed. Therefore, the common early movement experience could form a basis for international, intercultural non-verbal communication. How wonderful not to have to be hampered by 'foreign' languages!

But what is communicated non-verbally? Why are we so in favor of it -- whatever it is? As individuals we each live inside our skins trying throughout life to make connection with other individuals. When connections are made we feel more secure, understood and peaceful, which is a matter of 'belonging'. Movement and gesture, fortified by the power of rhythm, constitute parts of an art which breaks the language barriers and speaks to people of all ages, backgrounds and nationalities. Each year more dance groups and individual dancers from other countries are coming to the U.S. and more dancers from this country are going abroad. The American National Theatre and Academy, acting for the U. S. Department of State, has been responsible for many tours overseas by American dancers. The recently-established Asia Society Performing Arts Program is bringing groups from India, Thailand, Japan and Korea in this, its second year of operation. Isadora Bennett, in charge of this project, has described the success of this program in an article for IMPULSE 1963 with the title, 'The Unknown Guest has Become a Family Friend.' The impresario, Sol Hurok, has been bringing important dancers to the U.S. for the past 35 years and touring them across the country. The list of his 'attractions' is most impressive.

Folk groups, such as the Bayanihan from the Philippines, the Folklorico Ballet from Mexico, the Ukranian Dancers, the Inbal Dancers from Israel, and the Moiseyev Company from Russia, are immediately understandable to American audiences with their 'athletic' as well as gentle dances representing the varied strands in their cultural backgrounds. In their last American tour the Moiseyev Dancers made the delightful gesture of presenting a Virginia Reel on their program cementing friendship as performers and audience clapped together for each other following the performance.

\*See Rhoda Kellogg, 'The Biology of Esthetics,' IMPULSE, 1963-1964, San Francisco, California



SHANTA RAO, India's great dancer from the southernmost tip of India. This photograph by Herbert Matter appeared in IMPULSE 1963-64, an issue devoted to International Exchange in Dance. Impulse Publications, San Francisco, Cal. Courtesy of Marian Van Tuyl, editor of IMPULSE and Isadora Bennett, Director of the Asia Society for Performing Arts Program.

Ballet already has an international language for its basis -- the structured technique built since the time of Louis XIV. Throughout Western Europe, Russia, and the U. S. this technique is understood and cherished with minor variations in style. One can attend a ballet performance on one or more of several levels: the child or child-like person who goes to see the 'story', often quite banal; the tired-businessman, who goes to see beautiful girls, light on their feet; the individual who has 'always wanted to

be a dancer' (there are many of these); the society matron, who goes because it is socially smart in the same way that it constitutes a status symbol to attend the opera; the balletomane, who goes with a high degree of sophistication in matters of style, technique, etc., taking violent sides for this or that company for these or those reasons. The Bolshoi and Kirov Companies from Russia, the Danish Ballet, the Royal Ballet of England have come, and the New York City Ballet and San Francisco Ballet are among the companies from this country to tour Europe, South America and the Orient.

The so-called modern dancers do not have this ready-made non-verbal 'classic' alphabet. The choreographer in modern dance works with movement in a way similar to the way in which a sculptor works with clay or stone -- with the stuff of movement, not steps or poses or technical stunts. He speaks directly out of his individual human experience celebrating the 'most moving moments of our lives which find us all without words,' as Marcel Marceau, the incomparable pantomimist, has said. The movements of modern dance are less stylized by cultural influence, in fact, they are kinesthetic perceptions and projections of experience. For this kind of dance the audience member 'tunes in' by depending upon his basic movement experience as a human being with delights, frustrations, sorrows and excitements. Martha Graham, travelling with her group to many countries in the world, has provided us with a superb example of this person to person non-verbal communication in dance.

The song title from the musical, The King and I, 'Getting to Know You,' sums up the experience of international non-verbal communication in dance. Dance, a many-faceted art using the 'common' human instrument of the body, is characterized by varied, rich cultural heritages in different parts of the world. It is possible to view dance or participate in dancing at many levels of understanding and enjoyment. As with any of the other arts, the greater the experience the more rewarding it becomes with the delights of discovering 'the differences in the similarities and the similarities in the differences.'

MUSIC AS A MEANS OF NON-VERBAL COMMUNICATION

Allen Forte, New Haven

We are all familiar with the difficulties involved in speaking about language and communication. Perhaps even greater complexity attends the serious discussion of music as a form of non-verbal communication. Recent developments in musical composition and in musical theory have made it still more difficult to clarify the relationship which would appear to be of greatest interest in the non-verbal communication process: namely, the relationship between the transmitted sequence of musical signs, or 'events', and the response of the auditor. In the forefront of these recent and still problematic developments are the demise of triadic tonality (the system of tonal organization which dominated western music for some 250 years prior to 1910) and the more recent breakdown

of the customary distinction between 'musical' sound and noise. (1) On the other hand, this multi-faceted musical revolution, which began some fifty years ago and which is still in progress, has caused many to reconsider the essential nature of the art and to re-examine the truisms of the previous generation. For example, what does it mean to assert that 'music is a language'? In the past, those who held this opinion assumed that music is a code, that is, that a musical message can be converted to another representational form by applying a set of rules, somewhat loosely formulated. To this group belonged not only those astonishing authors of vivid program notes, but also -- and usually on a far less naive basis -- choreographers, silent-film pianists (2), and opera composers.

The association of music with certain gross aspects of emotional response, the traditional correspondence of musical gesture and movements of the human body, the imitative and referential aspects of certain types of music (for example, the imitation of bird calls) -- all these have rendered convincing the notion that music is such a code. This view of the musical message is still held by many. As a result they cannot conceive of an approach to musical understanding which does not begin from the decoded message, and therefore our cryptographic new music remains as unintelligible to them as would any cipher.

A special extension of the notion of music as a language is the view that music is the language of the emotions. This has a long and interesting history. In the 18th century this theory was called the doctrine of the affections, and in its highly developed form comprised the set of rules by which the musical message could be transformed into an organized array of specific emotions, for example, hatred, anger, or lust. (3) Modern proponents of this viewpoint have been more cautious (and less amusing, I might add), invoking in many cases modern psychological theories to lend validity to their formulations. (4)

Among the interesting recent efforts to understand the musical communication process are those in which the mathematical theory of communication has been used to analyze sequences of musical signs, sequences for which the transition probabilities of some order are known. By applying Shannon's equations to musical samples from various historical periods it has been possible to compute average uncertainty or 'information' as well as relative entropy (interpreted as disorder) and its complementary quantity, redundancy (interpreted as order). (5) In several of these studies the resulting quantization of the musical message then has been evaluated in aesthetic terms. That is, greater aesthetic value has been assigned to those sequences which exhibit a balance between fulfilled expectation and surprise. Although such results have the virtue of simplicity they are of doubtful worth, for it can be shown that the mathematical model in this case does not produce insights into the syntactic structure of the message, insights which are essential if we are to understand modern music. (6) In an effort to solve the syntactic problem I am now carrying out basic research with advanced post-tonal music. This involves an extensive program for data processing by computer which will, it is hoped, produce interesting results.

By now it should be apparent that I have avoided the question: What does music communicate? The reason is uncomplicated: I do not know. Given information about the background of an individual 'receptor', his education, tastes, experience in listening, I might hazard a guess -- but I fear that it would be a bad one. We simply lack data on the role of the auditor in the communication situation. We do not even have adequate information concerning the extent to which he receives the musical message, and of course we do not know what transformations he performs upon it.

It may well be that the question of what is communicated is meaningless, or that the assumption that music must communicate something, in the sense that language communicates, is untenable. Music is commonly regarded as an abstraction. But here, once again, language can mislead us. Essentially, music is not an abstraction of another set of constructs, but is an abstraction drawn from the raw materials of music: sound in time. (7) In this view it resembles an equation in pure mathematics. And, like an equation, it can, but need not, be regarded as a model for another, supposedly isomorphic, set of events or system.

Perhaps it is for this reason that music theorists have tended to study the structure of musical sequences without attempting to specify their non-musical content. (8) The fruitfulness of this approach is demonstrated in the ability of trained composers and theorists to deal effectively with sequences of tonal music, more particularly, in their ability to teach untrained persons how to compose authentic-sounding tonal compositions. This avoidance of problems of meaning is, of course, well in accord with the attitude taken by certain modern schools of linguistics. Whether music theory will continue in this direction I do not know. At the moment I can only say that it appears to be the most productive approach to the many problems which music faces today. In my view, efforts to deal with these problems at the aesthetic level have been unproductive, if not actually destructive, as witness the proliferation of musical aesthetics based upon numerology, psychology, neurology, Zen, chance, and combinations of these. (9)

When we have solved some of the basic and specific problems regarding the structure of the musical message and the perceptual powers of the auditor we may be able to cope adequately with more general aspects of the communication process as it concerns music.

## FOOTNOTES

1. For a discussion of attendant problems see: F. Winkel, 'The Psycho-Acoustical Analysis of Music as applied to Electronic Music,' *JOURNAL OF MUSIC THEORY*, Vol. 7/2, Winter, 1963, p. 194f.
2. The remarkable and elaborate practice of film music in the days before sound is outlined in: R. Manvell and J. Huntley, *THE TECHNIQUE OF FILM MUSIC*, London: Focal Press, 1957.
3. See: H. Lenneberg, 'Johann Mattheson on Affect and Rhetoric in Music,' *JOURNAL OF MUSIC THEORY*, Vol. 2/1, 2, April, November, 1958, p. 47, p. 193.
4. See, for example, D. Cooke, *THE LANGUAGE OF MUSIC*, London: Oxford University Press, 1959.
5. A summary of early work in this field is contained in: L. A. Hiller and L. M. Isaacson, *EXPERIMENTAL MUSIC*, New York: McGraw-Hill Book Company, Inc., 1959.
6. N. Chomsky's critical appraisal of the limitations of information theory with respect to the construction of a grammar for English suggests a similar critique in the case of information theory and music. See: N. Chomsky, *SYNTACTIC STRUCTURES*, 'S-Gravenhage: Mouton & Co., 1957.
7. This assertion, one which I believe would be supported by the majority of musicians today, quickly achieved the status of a truism after it was made by Eduard Hanslick in his influential little book, *ON THE BEAUTIFUL IN MUSIC* (1854).
8. See, for example, A. Forte: 'Context and Continuity in an Atonal Work: A Set-theoretic Approach,' *PERSPECTIVES OF NEW MUSIC*, Vol. 1/2, Spring, 1963.
9. See J. Cage, *SILENCE*, Middletown, Conn.: Wesleyan University Press, 1962.

## ASPECTS OF PHOTOGRAPHIC INTERPRETATION

Barbara Morgan, Scarsdale, N. Y.

Photography, now approximately 125 years old, serves humanity in many fields of communication: daily life, scientific research, industry, art and international relations. Astronauts photograph the moon; aerial photographers reveal the Earth's surface in varying scale and definition; microscopists discover life forms and behavior invisible to the unaided eye; photo-journalists, TV and Telstar keep the world connected through visual interpretation of events and personalities; creative artists use the camera to transform external subject matter into compositions of their imagination. In countless ways, photography functions internationally as a visual language of the twentieth century, transcending verbal language barriers.

Since its beginnings, the character of the medium has roused conflicting reactions. Painters condemned it for usurping painting's role, while producing only 'mechanical external record'. Primitive tribes feared the 'black box' as magic, the lens as the 'evil eye', and the photographer as 'sorcerer'. But the general public, convinced by the precise, instant delineation of every blade of grass, wart, hair, stick and stone, believed that the 'photograph never lies'. Such naive illusions as to the truth of photographic rendering are now past, inured as we now are to glamorized advertising, political propaganda and TV shockers and commercials. It is obvious that the photographic image can and does lie subtly and/or crudely, almost constantly. Yet the photographic

image per se is so convincing that it is often well-nigh impossible to separate truth from its distortion. Who knows what is being stored in the brain cells of our believing children, hypnotized before the TV screen?

There are as many avenues of interpretation as there are minds to invent and to use cameras, and to react to the resulting photographs. This brief discussion can barely indicate the enormous span of subject matter, from the most personal to the cosmic, and give some idea of the factors that govern its varied interpretation. Perhaps because the cosmic force, Light, is the prime mover of photography, we sometimes take for granted that photography is impersonal, objective record. But even robot research cameras sent under water, into outer space, or within the human body, are conceived and coded by the human brain, to human relevance. Therefore the resulting photographs are not wholly impersonal, but actually are extensions of human thought and vision. Since this is true of all photography in differing degrees of subjectivity, it is questionable whether any photograph of person, place, space or object, could be considered a truly objective rendering. For as we choose our man-invented camera, lens, shutter, lighting equipment, film and chemical processing to give a certain image character to the composition which we extract from a beam of refracting light, subjectivity is with us in every choice. Thus we portray a limited aspect of what, unthinkingly, or for convenience, we call 'reality'.



Moriches Inlet, Long Island, N. Y. (Aerial photography by R. Sandek, Lockwood, Kessler & Bartlett, Inc.)

At this altitude, this beautiful pattern might be interpreted by a painter as an abstract painting. Actually it shows water, land and underwater sand dunes, for use by an engineering firm.

## PRE-VISION, The Key to Photography

Regardless of the subject matter, or the style of its composition, whether scientific, humanistic, artistic -- the vital crux is pre-visioning the composition before clicking the shutter. By Pre-vision we mean the total visualization before making the exposure, much as the Oriental painter with ink and brush will meditate before his decisive strokes. This preparatory correlation means: imagining the intended composition in structure and atmosphere; feeling an articulated rapport with the subject; sensing the reciprocal placement for subject, lights, camera; predicting the logical follow-through of technical controls -- camera angle, type of film, lens, focus, depth of field, shutter speed, character of processing. This mental rehearsal should enable the photographer to specifically foresee the quality of the finished print.

Pre-visioning for action shooting can become almost instantaneous and subconscious, when the photographer is familiar with the subject's rhythm and style of notion. But an imaginative project, like a photographic book, might take months to conceive and organize. Then the pre-vision of individual pictures would be given coherent style, for the thematic sequencing of the total format.

It is fascinating to see how creative temperaments make use of, and thereby amplify the photographic medium, and also how photographic exploration brings growth of awareness to the experimenter. Sensitive and intense insights into the ways of human living, both realistic and poetic-symbolic; kinetic imagery; close-up texture-structure experiments; aerial patterning; photomontage and context-implications; and imaginative approaches in color composition are vital growth directions of photographic artists. Also, painters who are aware of the environmental impact of photography are using photographic elements in pop-art, sometimes plagiaristically, and sometimes legitimately.

Distinguished photographers who are also capable sociologists and anthropologists are now producing important interpretations of peoples and customs, for they are able to combine depth of understanding with esthetically satisfying compositions.

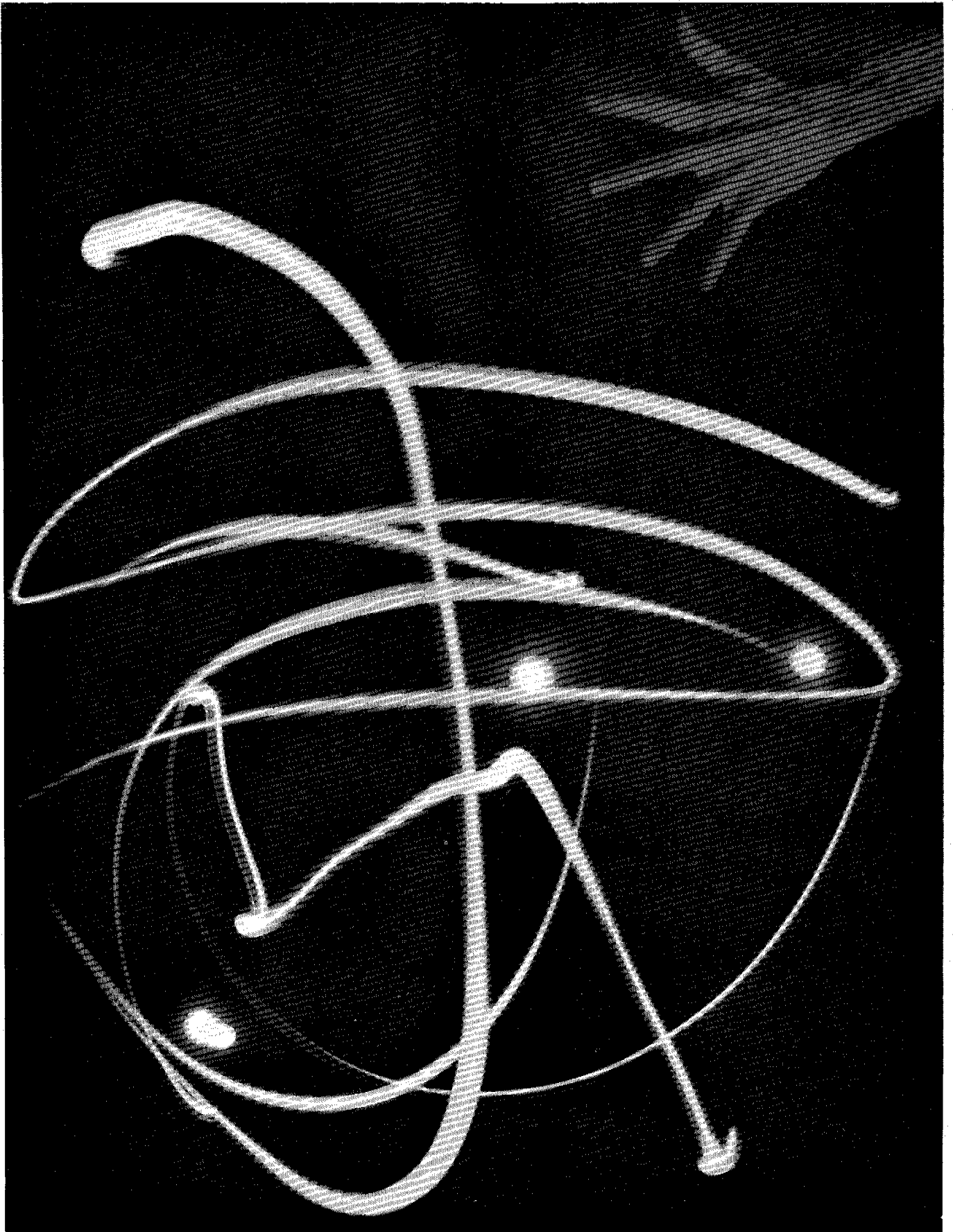
The whole subject of validity of interpretation of subject matter has many debatable aspects. For example, in art photography, we expect the artist to overtly transform subject matter, or at least enhance its context -- otherwise he is just copying nature. But in documentary photography, the photographer's role is that of an understanding, but unbiased, observer. However, temperament and shooting situations produce very different results. The presence of the photographer is always felt no matter how he attempts self-effacement, or becomes 'one of them'. Sometimes the telephoto lens does allow him to be physically distant. A too detached, academic approach may be felt as coolness and prevent spontaneity, while too much empathy may induce uncharacteristic emotional responses. Another extreme is the prejudiced photographer who photographs with a preconceived intention, only those aspects that confirm his editorial slant. Such so-called documentation is propaganda.

A twelve-mile strip of Manhattan Island taken with a 180 degree scan, rotary prism, panoramic camera designed and produced by Fairchild Space and Defense Systems, a division of Fairchild Camera and Instrument Corp. Despite the obvious distortion (or because of it) this unusual view of our well known island could have innumerable implications.

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Pure Energy and Neurotic Man. By Barbara Morgan

This light drawing photomontage was intended as a visual metaphor.

The professional photo-journalist must be able to slant interpretation. When cameramen of newspapers of opposite loyalties encircle a campaigner, the pro-cameraman will flash when the orator is in heroic fervor, while the anti-cameraman will watch for some shift or irritation to dramatize. From the same subject, the desired 'good' and 'bad' images are channeled to their respective editors and readers. Thus the part stands for the whole, and the photographer's daily choice from the time-stream of personality and action establishes a 'public image', true, or only partly true.

Portrayal of personality, not as flattery, but as intimate search for character, is perhaps the most important, and difficult, use of photography. The intuitive photographer in warm rapport can liberate the deeper personality levels of his subject, and as he witnesses oscillations of consciousness, he learns to link facial expressions, stance, tensions, gestures, back to the 'soul states' of which they are external evidence. Complex and passionate personalities often

have wider gamuts of negative-positive polarities to sort through to find the essence.

Perceptive photographs often reveal to the subject, and to those that know and love him, fuller awareness of himself -- sometimes shockingly. On the other hand, the best photographer may be incompatible with certain personalities. He might competently compose the sculptural mass of the physical body before his lens, yet be totally off-empathy with the nerve-stream, and thought currents of the 'vital spirit'. Character interpretation is so highly subjective that, if carried to its ultimate, it becomes a reciprocal encounter with the Unknown that is within each of us.

CONCLUSION: After over twelve decades of use, the protean medium, Photography, stands ready for the next possible breakthrough. When and if there is conscious life on other planets, will the interplanetary projection of photographic imagery establish communication between our respective populations?

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Mrs. Morgan kindly supervised the hanging of the exhibit of photographs by Nathan Lyons and Alice Andrews which served as a silent-level portion of this panel. For the exhibit, Mr. Lyons wrote the following

#### INTRODUCTION

If a reasonable distinction can be made between a familiar view of nature and an unfamiliar view of nature, then it could be said that through the former we understand events which confirm or remind us of knowns, while through the latter we become involved with perceptions which extend or challenge that which we know. The camera has been used primarily to record visual responses to events as a construct of the familiar view, much in the sense of the reprographic (document copying for scientific, cultural, industrial or administrative purposes) or topographic applications of the medium. Events isolated from the physical world are not selected at random by a machine but arise as the result of its use as an extension of the complex response mechanisms of a man. It is, therefore, on the question of the relationship of photography to perception that emphasis must be placed.

Photography is primarily a means of retaining the impressions that an individual deems significant. He extracts, selectively, a rectangle from the complex structures and events of the world. The process is one of abstraction: the removal of a part from its original context. The nature of the statement will be a reflection of the view of nature the individual is capable of responding to. The photographer, therefore, must be able to perceive, articulate and extend his own capabilities as a statement maker. If he understands creative expression to be a generative process, his attention must be directed towards perceptions which extend or challenge that which he knows.

Sensory activity in relation to the response situation can be evaluated further on the basis of the literal and non-literal aspects of visual statement making. The literal functions on the basis of known and accepted representations or symbols. The non-literal is not as directly associative as the literal, primarily because it functions along completely different lines. Here the photographer becomes involved with the pictographic representation of unknowns or unknown symbols. It is through his application of them, and in the greater context of an art tradition, that their meanings can be understood.



**Martha Graham in EKSTASIS.** By Barbara Morgan  
To suggest monumentality, the torso was illuminated sculpturally to symbolize the dance. (From the book: **MARTHA GRAHAM: Sixteen Dances in Photographs**, by Barbara Morgan. Published by Duell, Sloan & Pearce.)

A paper prepared by Lief Sjöberg and Paul Cox about the art of Charles Biederman was presented on this panel. Because of the many pictures shown, and comments related to them, we are unable to publish the paper given at that time. We include the following interview instead, in which Mr. Biederman speaks about the development of his work and elucidates his points of view.

## INTERVIEW WITH CHARLES BIEDERMAN

Lief Sjöberg

Lief Sjöberg is Professor of Germanic Languages at Columbia University. He has had numerous articles on art and Swedish literature published in international periodicals.

Charles Biederman was born in Cleveland, Ohio, 1906. He attended the Art Institute of Chicago, 1926-1929. His first "abstract" works were done in 1934; the same year he moved to New York City where he had a one-man show at the Pierre Matisse Gallery in 1936. 1936-1937 lived in Paris. Until June 1937 was a painter, then discontinued painting for the Constructionist medium. Returned to New York City in 1937. In 1941 exhibited in Chicago at the Arts Club and Kuh Gallery. 1942 moved to Red Wing, Rt. 2, Minnesota. In 1952 coined the name Structurist for the art which had evolved from a direction he had pursued since 1937. May-June, 1962, exhibited 10 Structurist Reliefs at the Stedelijk Museum, Amsterdam, Holland, also to be exhibited at the Kunstgewerbe Museum, Zurich, Switzerland, during October 1962.

Biederman has exerted considerable influence on (particularly) English artists (Victor Pasmore, Kenneth Martin, Mary Martin, Anthony Hill and others). In Holland the magazine *Structure* (Amsterdam) and in Canada the art annual *The Structurist* (University of Saskatchewan) have launched ideas of Biederman.

Opinions have varied strongly about Biederman's magnum opus, (*Art As The Evolution Of Visual Knowledge*, Art History Publishers, Red Wing, Minnesota, 1948) which has been called anything from "subjective, tendentious, partisan" to "a monumental thorough work" (M. Seuphor, *Die Plastik des 20. Jahrhunderts*, 1959). Dr. J. P. Hodin, Institute of Contemporary Arts, London, in his evaluation of the book states that it is "a remarkable work". "It is an attempt, and the first one of its kind, to readjust our interpretation of the visual arts of mankind to the needs created by our industrial civilization and to arrive at a consistent and scientific interpretation of contemporary art. The process of planning this book was the reverse of that usually employed. That is to say; it was the need to clarify the chaotic situation in contemporary art that induced the author to include in his history all the known epochs of man's creative efforts under the single aspect of evolution of visual knowledge. It is the special viewpoint from which this vast process is seen that constitutes the strength, the inner consistency of this work but also its weakness. This weakness is that the author aims at establishing a partisan view, namely to demonstrate that the Constructionist trend is the only valuable and progressive branch of contemporary art. The author expounds his view logically and achieves a unity of thought, terminology and approach that compels admiration compared to the vagueness and dilettantism with which the problems of contemporary art are dealt in so many works". (*Numero, arte e letteratura*, Firenze, Dec. 1952, p. 20.)

In his book, *Letters On The New Art* (1951), written to a young artist, Biederman further discusses several ideas from his major book, e.g., the development in art, the structural process of nature and creative art, and art education. "It forms together with the main work a unity of ideas that can be considered as a serious attempt to bring clarity into a jungle of contradictory terms". (Op. cit.)

*The New Cézanne*, published in 1958, is a notable re-evaluation of Cézanne, concerned chiefly with the period from Claude Monet to Piet Mondrian. Here, for the first time, Biederman sets forth the historical antecedents for the present day art of Structurism. It is liberally documented with quotations from Cézanne, the vast majority of which have been ignored by writers on the artist.

Sjöberg: "I understand that during your painting career up to 1937, at one time or another you practised all the major forms of so-called modern art, including fauvism, surrealism, picassoism, legerism, grisism, etc. What prompted you to do so?"

Biederman: "I found it necessary to actually practise the various ramifications of 'modern art,' as the means for gaining a clarification of

my own search into art. From 1926 to 1930, my work was dominated almost solely by Cézanne, an influence that persisted from that time to the very present. In the following years, from 1930 to 1937, I experienced various influences which proved eventually useful. In those years, as now, everything was being done. The young artist had the choice of arbitrarily adopting one or more of these efforts, or seeking to understand what all this conflicting diversity was about. I chose the latter course."

S: "Did your stay in Paris, and your visiting the studios of Leger, Arp, Brancusi, Mondrian, Vantongerloo and others contribute to your development?"

B: "I left America because it was hostile to all new efforts: American Scene Painting was in full force then. In Paris, however, I came to feel I had arrived too late. The art that dominated did not give me the answers to the new problems of art, which I felt but could not understand myself. After three months of meeting many artists and seeing their work, I then isolated myself to search for answers through actual work. Eventually my painting became so sculptural and geometrical, that Zervos, who came to see it, made the observation that I was not doing painting but sculpture. It was at the end of my stay in Paris that I began to have some inkling of what I was searching for, in Constructivism and *de Stijl*. In this connection, I should say that I had been doing actual three-dimensional art since 1934, when my painting first became 'abstract.' Just before leaving Paris I visited Pevsner at his studio. Domela, the Dutch artist, took me to see him, and I was greatly impressed, really overwhelmed. Anyway, my last painting in Paris, and the last I was to do, ended in the general direction of *de Stijl*. In contrast to my preceding painting, I now only used the two-dimensions and reduced my color to black, white, red, yellow and blue. These works, however, were all intended to be made in relief, and I constructed them in that medium when this became possible on my return to New York City in 1937.

"After a brief experiment with geometric sculpture, I then began relief constructions, using only two colors in a work with a major area of white, later using three colors. After ten years I had found the general direction I was searching for."

S: "When did you begin to see a correlation between art and science, which you have written about many times since?"

B: "In 1938 as a result of a seminar with the semantician Korzybski. At that time my inter-

ests in science developed naturally from my becoming a constructionist artist. I felt more affinity to the coherent world of science than to the ever increasing absurdity of the art world. My experience with science, however, went through many kinds of complicated changes during the next decade or more. Even though I now recognized how much closer the 'new' direction of constructionist art and science had become in their mutual world outlook, the problem was not to lose sight of the important differences that distinguished each field. The great danger lies in assuming that art has but to follow in the way opened up by science.

"It was in this same year, 1938, as a direct result of my studies in semantics, that I began my *Evolution* book. I expected to finish it in a year, then two, then five. Finally, it was finished ten years later."

S: "What motivated you to write this book?"

B: "Originally it was for the necessity of achieving my own education. Several years previously I had assumed the very absurd conclusion that all art up to and including Courbet was worthless for understanding the new possibilities of art. Now I realized, especially in this time of great historical change, that the understanding of present attempts depended also on the depth of our comprehension of the past. My ensuing study also eventually became indispensable to my resolving, among other problems, the two incompatible influences that existed in my art from 1937 to 1946, those of Constructivism and Neoplasticism. What I was searching for as the new direction of art was only partly to be found in these two preceding efforts, which, in certain serious ways, were contradictory in the solution they proposed for future art. In 1946 the influence of Constructivism, and in 1947 that of Neoplasticism, came to an end in my work. The resolution of the contradictions within and between these two forms of art, now fully released the dominant effort I had been making since 1937. For it was then that the art of Paul Cézanne once more had a resurgence of new interest for me, which led to my book on the 'new' Cézanne."

S: "Why did you change the name of your art from Constructionist to Structurist?"

B: "To make clear, among other things, the particular direction for a purely creative art that had evolved out of all my studies since 1937. In 1946 and 1947, as I have already mentioned, the influences of Constructivism and Neoplasticism came to a close in my work. Later, in 1952, to denote this change I coined the name

Structurist for my art. I now realized, in a sharper way than before, that what had made it possible for me to secure my particular development was that I had not forgotten Cézanne, and had not denounced nature, as so many had. In a much deeper sense than before, I now realized that Cézanne's accomplishments formed the key to all that had come after him, that the prevailing confusion of art centered in the misunderstanding of this artist. Not only was Cézanne the very first coherently to perceive the future as one of art 'creation,' but he also understood that it was critically essential to base this effort in visible nature. Failure to do so, as he repeatedly remarked, would end in the failure of an art of creation.

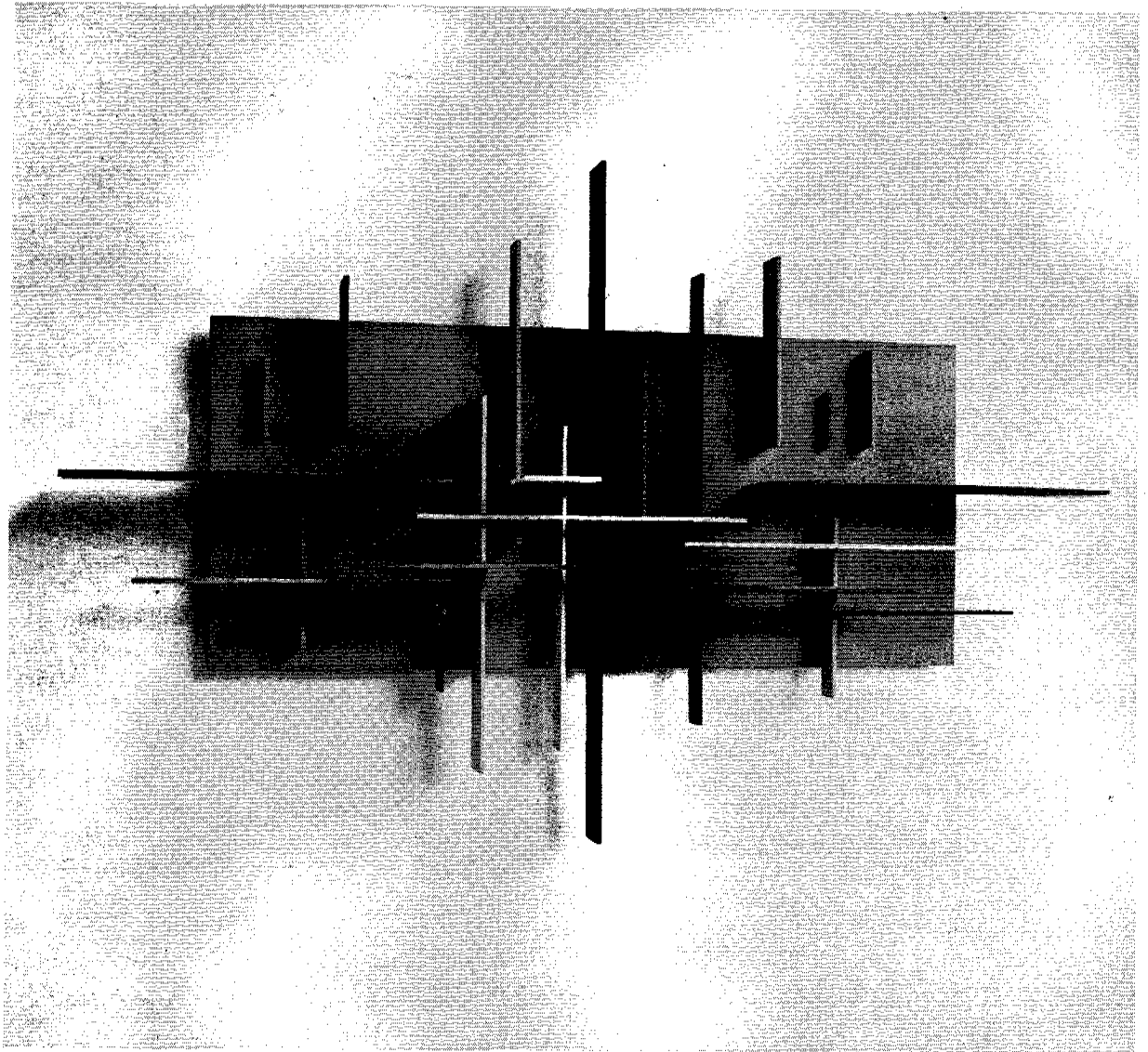
"I should like to say here, because it is not well understood, that with the term Structurist I did not have the intention of coining a name for a school. I would be opposed to that. It was meant to indicate a particular understanding of the whole historical process that began with Monet, through Cézanne and Mondrian, which was presented for the first time in my *Evolution* book of 1948."

S: "In spite of all the current directions to the contrary, is it still your view, as in your *Evolution* book, that art will inevitably have to abandon its present unhappy state of confusion and confront the new structural problems of an art of pure creation?"

B: "The choice before the artist is not some form of compromising the past with the future, as the many try to do, but of achieving the new art of creation, the art of the future. It is an evolution that will make new demands upon the artist. An evolution of constant change-refinements, if you like—that can go on for centuries, just as happened in the mimetic period, from lower to ever higher forms of abstraction from nature. This evolution, however, will remain closed until it is understood that the old mimetic mediums of painting and sculpture are now inadequate. After all, they were created specifically for mimetic purposes. The new goal being creation, it follows that new means will be necessary to achieve it."

S: "Apparently you do not think this art will easily exhaust itself?"

B: "It does not seem likely. Consider that the source of this art lies in the very creative heart of nature, a source which appears inexhaustible. Think for a moment about the incredible ramifications of what is already known about the evolution of the universe, and the particular evolution that has taken place on our planet.



CHARLES BIEDERMAN: *Structurist Relief*, 1957.

Earth. It is a vast creative process that goes beyond anything any human could conjure with all the freedom of the imagination. Think also that of all of this creative activity of nature, man alone has become a creative being like nature. Then, once more, think of the fact that creative man has open to him this whole vastness of the creative process of nature, and so of his own nature. It is in this view of nature that Structurist art has been born and will flourish."

S: "How would you explain your relation to nature?"

B: "You must distinguish between two different structural visions of nature. In one you are concerned with the *particular structural results* which are actualized in nature, its objects. This is the source of all abstractions for mimetic art. In the other you are concerned with the *structural laws or process* by which nature achieves creation. It is from this aspect of nature that all

purely creative art abstracts, regardless of whether the artist knows it or not. In this way we can distinguish between abstractions from the created or from the creative levels of nature. The Structurist is not limited to nature's art, what nature has created, but is now concerned with how it creates, to achieve what has not yet been created in nature.

"Until the problem of abstracting is properly faced, the current confusion of art will prevail. We have to recognize that *all artists unavoidably abstract from nature*, whether they wish to or not. So the only choice before the artist is to abstract directly from the created or directly from the creative levels of nature. If, however, these two different forms of nature abstracting are confused with each other, then the inevitable result in the work of art is confused abstraction from nature. Obvious? Yes. Yet this is what is generally done in art today. You cannot truly

create while you are also imitating. If you are not only imitating, you are also not only creating; you are only confusing frustrated imitation with a frustrated effort to create.

"Imagine the chaos that would appear in science if, on a large scale, scientists confused their abstractions from the particle or process aspect of nature, with abstractions made from the world of objects. Well, today most art does this."

S: "Your view of art and nature is certainly not the prevailing one. Why have the majority disregarded this direction?"

B: "In our times it is generally taken for granted that the artist is somehow more free from the specific demands of nature than are others. To the very contrary, the artist, not one bit less than the scientist, exists and creates within the specific structural boundaries of nature's creative process. If he does not seek or achieve a harmony for the structure of his art with that properly perceived in the creative structure of nature, the artist falls into a conflict with nature, one impossible to resolve. Art then literally reflects this conflict.

"Meanwhile, the past hundred years amply demonstrate than an art of expediency, as a substitute for resolving confusion, only serves to increase that confusion. The whims of fashion then prevail in art. Structuralist art seeks to continue the efforts that prevailed in the achievements of Monet, Cézanne and Mondrian. Art that eventually prevails never makes its appearance as fashion, although, unfortunately, once accepted becomes mere fashion. Fashion falsifies, obscuring understanding."

S: "Who would you say determines the art fashions of our times?"

B: "Fundamentally it is determined by the condition of mankind, the confused temperament of our times. All of us are activated by powerful forces of society, which are both good and evil. The tragedy is to compromise, fearing the good as much as the evil. Thoreau observed long ago: 'The mass of men lead lives of quiet desperation.' Most art is an *indiscriminate reflection* of the society from which it arises. Art then seeks to divert society from its confusion with, of all things, its own confusion."

S: "You are the first artist I have come across to talk about the general field of visual therapy and visual sanity for our society. How could the visual arts be beneficial in this regard?"

B: "With the appearance of purely creative art we come into the position of being able to be more aware, to see more deeply, how man can

apply the visual experience and knowledge of art towards desirable human existence. Art now has the direct potentiality of being a new form of research into and for human life. Artists especially gifted in this field could co-operate with scientists directly involved, to produce knowledge and materials which could be employed to restore the order of the rhythmic functions of the human being, and open new channels by which these structures could be maintained developmentally. In this connection, note that art has been mostly reduced to the dubious therapy of the artist himself, inviting us to wander among the inane obscurities of the artist's subconscious.

"Since the 19th century, psychiatrists of every persuasion have concentrated upon the neurotic and pathological artist. This has tremendously encouraged such art. I suggest that psychiatrists become more aware of those artists who do not reduce art to their personal therapy of exhibitionism.

"In any case, regard the totality of the man-made environment, from the selling neon-lights to the TV gangster pictures along with all the destructional art, and you realize the nature of the problem facing us. Obviously our orientation should be of a more humane order. The idea has been advanced (by Polykarp Kusch) that other forms of creation than science would predominate in the future. In my view a notable degree of humanity will not be reached, not even that potential in the genuine aspects of science, until the arts become central to the formation of human existence."

S: "Among the more disturbing aspects of art today, I think, is this business of 'success,' the constant worry about 'getting ahead fast,' while achievements rest on a basis of insecurity, and an inability to profit from the results and resources of past tradition. If it is true, as has been stated many times from the 1920's on, that our society has collapsed from within, the painter of today nonetheless pretends to be content to add to human knowledge only his interpretation of the atomization of our civilization. And it may be questioned if he does not do even this in a detached, alienated way. However that may be, would you not say that it would be desirable that artists try to achieve a unity between art and their lives?"

B: "The drive for 'success' resting in insecurity—you are certainly right. It reveals a vicious circle. Being in a total confusion, art permits access to success that much easier, but at the price of resting on the quicksand of a 'security'

that degrades the artist and his art. This false security is an expensive price for not facing the prevailing confusion. It is essential not to feel insecure with insecurity, for this is a condition of the problems facing artists, as well as the rest of us. I mean, in art, in every field, we have the problem of creating an entirely new art and civilization. In this future, as I see it, there will no longer be those long periods of apparent stability. Society will be in creative motion from day to day, as a necessity. In such a social context not feeling insecure about insecurity leads to a new kind of 'security.' I mean, man will have become directly attuned to the essentially process character of all nature, where all is incessantly revolving in the fertilizations of change. Man has but to direct this process towards a fundamentally creative existence.

"In regard to your question, art is obviously a *modus vivendi*. What the artist is, lives or dies in his art. It is not a question of whether or not there should be a unity between the artist's life and his art. For the artist has no choice but to make his art out of the kind of life he leads."

S: "In my own case, I think the appreciation on Constructivism and Structurism has been helped rather than hampered by the fact that I was brought up in the countryside far from a museum and so from oil paintings. Do you think the more thoroughly one is educated in the old type of art, the more thoroughly he is frustrated by the new types of art?"

B: "That depends on the individual and the kind of education he has had. Education in art, as in anything else, can be beneficial or harmful, and it depends on the individual to discern which of these he has been subjected to. The more one has to unlearn what is false and inadequate about the past, the more difficult to gain a knowledge of it proper to our times. Each generation must see the past anew, for the past is always becoming new, just as is the future. So the past must be understood from the *unique vantage point* of recent events in art. For if these changes come out of what has passed, they immediately go into the past which then becomes new. So the past is constantly new, no less than the future. Every form of contemporary art, whether the artist intends it or not, implies some kind of an attitude towards the past in relation to the future. These problems have become particularly acute in our times, because a fundamental change is taking place, one more fundamental than any in the past. Consider the drastic revisions in a number of directions over the past eighty years since Monet brought Im-

pressionism to full flower. To ignore the consequences of these various kinds of revisions, some of which seriously contradict each other, frustrates us in considering the past or meeting the future."

S: "As to your own type of art. Does it have to be seen in a modern architectural setting?"

B: "Structurist art belongs to a new type of architecture. The full experience of Structurism on our sensation of space would not be fully realized unless the proper architectural structure formed its environment, an architecture that lets in the light of nature with all its variations of color and brightness, walls that speak eloquently of the space to the humans who live in it. It is not a question of decorating or adorning the space, but of giving the direct, palpable, creative consciousness of living in space—a space that both liberates and conveys its living harmony to us. Structurist art would speak fully and clearly in such space, as a tree does in the landscape. Until the proper architectural space is given to this art, laymen will tend to experience each work as an isolated object in space, as was done with past art, and fail to see how it would transform the environment of daily existence. A house should be structured both for the new living and living with the new art."

S: "What about the integration of art with architecture?"

B: "Art must not integrate in the sense that it becomes architecture. Structurism, unlike architecture, is not art applied to anything outside itself. It has a good deal more to contribute than the useless role of imitating architecture. The latter, however, must also seek an integration with art. It must be a place of proper light and space where Structurist art can live and breathe its unique life into the unique space of architecture.

"Many architects have come to assume that they are 'artists,' too, becoming sculptors or painters instead of architects. The wonders of simplicity and direction that appeared for awhile some few decades ago, are gone. I envisage an architecture of unmolested planes, composing the space from nature into the work and back to nature, that is, continuing the sensation of space already given in nature, a place where human life and art could live in repose, where meditation is stimulated, where music and literature can be properly experienced. What do we have instead? Too often the space and the eyes are endlessly cluttered with interruptions, as though the principal objective is to deny human rest anywhere. Architecture, when it has been



truly so, has not been mere display or ornament for human existence, but rather an expression of its living potentialities."

S: "I sometimes have the uneasy feeling about the ever bigger art works. The less there is to say, the louder the shouting—to make it appear more than it is. But I suppose it is art that is trying to stand up to architecture. How do you look upon this question of size?"

B: "Certainly the size of a work is invariably related to the size of the wall and the kind of space that forms the environment to the wall. But that does not necessarily mean big art for big walls. I have the impression that all these big art works you speak of wish to cover up all the space around them, in order to push away that quality which space possesses and the work does not—coherence of expression. One could make a relatively small work and, to use your expression, it would stand up to the architecture in which both would form a desirable unity. One does not have to shout. Look at nature. In a hundred places it shows you all kinds of small jewels set against the large.

"Outside of the proper conditions for large works, I think art should be human size, something a person can put entirely into his vision—not to inundate one in the endless obscurities of the arbitrary, but to compose an order of vision that brings a new unified life to the experience of our capacity to see. This would be an art experience such as we could continue in all the other aspects of our existence."

S: "Is there not, in much of 'modern' art, a concentration upon performance and technique that is regrettable? I understand that you instead propose to develop an entirely different technique: to see-think, to sharpen or refine 'vision,' in order to keep the 'living quality.' But to judge from your works you have much of the perfectionist's leanings, don't you?"

B: "The technique of my work remains as it was *naturally* formed from the first works in 1937. That is, surfaces having the precision possible with mechanical methods, and not the imperfections of the hand. The latter would really have the result of disrupting the direct experience of the forms as spatial composing. The Structurist does not want simply to draw attention to surfaces and to the forms, as such, but to their interaction with space and light. This is the new 'music' of art, a new experience within the heretofore untouched potentialities of the visible world of creative nature and man.

"Thus, no one can tell by looking at a finished work of mine what kind of materials are

employed. One is not even conscious of materials. Surfaces are not of interest in themselves, but only as part of forms, color spatial forms composed. Only after looking for awhile does one suddenly become aware that he has not been conscious of materials, then inevitably asking what the work is made of. So you must understand that the perfection of the surfaces does not imply perfectionist goals. It is only to assure an uninterrupted continuity of the color-forms as direct spatial units. You then see that this technique is as appropriate and as logically essential to Structurist art as the hand techniques were for past forms of art. In both cases the means employed are essential to the 'living quality' of each form of art. *When the artist uses both the old and new techniques, then he is simply confusing the two and so confusing the new with the old art.* It is a question of the means appropriate, therefore essential, to the goal sought."

S: "Yes, anyone who is familiar with your work must have noticed that you want to avoid added texture, which only too often seems to be an artificial pepping up for poor color. And this goes even for your last paintings from 1935-37, as I have seen them. But what is your answer to the serious and honest artists who maintain that texture as an additional surface treatment is more appropriate to sculpture than to painting, where, as a rule, neither color nor so-called texture serve or improve each other, and who accordingly permit traces of tools in their painting when the paint makes them unavoidable?"

B: "To arrive at such conclusions about the question of texture one has to ignore all past painting, and also the new art of Structurism. To take up painting, first: It displays great art done across the whole spectrum, all the way from what is commonly called "texture" (think of Rubens), to what is not supposed to be texture but actually is only a different or more precise form of texture (for instance Poussin). The latter artist simply has a different attitude towards *form as a means of expression*. Both ways, in the hands of genuine artists, produce living forms of art.

"I agree that color does not succeed very well with sculpture. But this leaves the impression that there exists only the old form of three-dimensional art, so that color is not useful in *any* three-dimensional form. This would be to ignore the new factors introduced by Structurism, an entirely new form of art. It is neither painting nor sculpture, yet possesses the qualities of both and, at the same time, extends the

potentialities of expression contained in the two old art forms. And most important, it does so without confusing the form of sculpture with the color of painting, as is generally done. Rather it takes the means of expression—structure—into areas which neither painting nor sculpture can engage. Structurism is not a tactile art as is sculpture, thus it cannot be associated with the old nature art forms, an association which only served to decrease the living quality of sculpture when it sought to extend its proximity to nature by the use of color. This is why painting eventually came to take over art from sculpture in the Renaissance, as I explained in my *Evolution* book.

"In Structurism it is the image, the optical, that is the end goal, and not the tactile as in sculpture. More than that, it is a proper form of art creation for man, unique to man, therefore cannot be identified with the creations of non-man nature. It imitates neither the tactile forms of nature nor its tactile images; it is a unique approach to the use of form and color and space. If it were not, it would not be true creation. That this is not understood explains why some suppose that Structurism is a non-human or inhuman form of art. This means that such viewers are still within the limited perception of art associated with the old mediums of mimeticism. That is, they confuse the old with the new, the consequence of which is *to confuse the act of creation itself*. There is then the serious failure to recognize the characteristics unique to human creation in art."

S: "But painting also seeks the end goal of an optical image, as does Structurism. So why does Structurism think it is better?"

B: "Because it does not produce an image created by the *limited dimensions* of illusion, but creates an image with the full dimensional characteristics of reality, *just as nature does*. The method of illusion was necessary to painting, as it is to its continuance in camera art. These arts form *records of the real*. Structurism creates the real, creating experiences in the living quality of reality. Obviously, reality gives the fullest freedom to the creative act. *All other alternatives can only result in limiting the dimensional freedom of reality, thus limiting the freedom to create.*"

S: "Since you insist on a development step by step, all the time from the simple to the complex, without skipping steps in the evolution, are you not confronted with the criticism that your art is boring because it is too orderly, too cold and scientific, too materialistic, too predictable, too logical?"

B: "My last reply forms part of the answer to your present question. What we see or fail to see is determined by how we think about what we see. Anyway, it is not so simple that all the artist has to do is disregard order, etc., in order to avoid boring art. The changing fashions of art over the past fifty years provide sufficient examples. Order, predictability, logic—all these we invariably use in some way, no matter what we do. The question can only be, *how we use them*. With them we achieve the success or the destruction of the creative act. There is never a situation of 'too much order,' as you put it. There is only living order or empty, confused order. *Order is the means of expression* (Cézanne), not merely some neuter arrangement. When we are confronted with empty order, just as boring as emotionally confused order, this is certainly not the fault of order or 'too much order.' It is because there is too much 'thinking' of some sort, and too little 'feeling.' Order is then merely constructed, and not the result of realizing a living experience. In the old art the correctly drawn order of the human form was not enough, one had to feel the living quality of the order of the form before him. So with the act of creation. The artist gives birth to what has gestated within him in the actuality of visible experience. All this is related to the insecurity problem discussed earlier. Some try to overcome the current confusion of art with principal reliance upon the emotions, others similarly use the intellect. One might as well try to walk with one or the other of the two legs he actually needs.

"The living experience of order is always absent in art when the artist's relation to nature is one of conflict, or is obscured and dispersed by false verbalisms about nature. To create the life of order one had better properly experience the supreme example of order — the creative building method of nature. Some artists claim contact with a creative order superior to their perception of visible nature. This only means that perception of nature has failed to advance beyond the limited perception of mimeticism, compelling the artist to deny nature altogether, to conjure a verbal reality in place of nature's visible one.

"The question of skipping stages of development or evolution is an extremely critical problem. In the past, the tendency was to prefer to lag behind, today, to be ahead of one's time. As I tried to show in my *Cézanne* book, ignoring the demands of development leads art into false directions. In the past or mimetic epoch, the

nature of evolution did not permit any artist to skip stages of development without its becoming very obvious. For instance, if one had not yet learned to draw the human form properly, any attempt to draw a portrait would *automatically* and blatantly reveal the artist's lack of development. *Today these laws of human evolution in art remain in as absolute force as ever they did in the past.* Today, by analogy, many are passing off as portraits what are naïve or confused drawings of the human form. This is not apparent in the present non-literal mimetic world of art. And I suppose it will not be, until many more artists destroy their efforts to create while, at the same time, disregarding the *creative laws of human growth.*

"Why does this situation prevail? Because the art fashions of confusion, rather than the proper use of experience and intelligence, dominate. We have been unable, because unwilling, to resolve this confusion, preferring the easier course of regarding confusion as a high form of creative liberation. But confusion cannot create, it only destroys. There is all the art in the world one could possibly need, for those who wish to prove this for themselves."

S: "Why did you not take up teaching to advance your ideas?"

B: "At the present time the genuine teacher of art can only satisfy the few. Most institutions want the majority of students to experience sensations of satisfaction. Art suffers the consequences. I don't mean to say that art cannot be taught *beneficially* to the majority. It is the general failure to do so that is the serious flaw in art education. An entirely new view of the problem is necessary. Let me propose a solution. Twenty years ago in the course of my study of art history, trying to understand how the understanding of art evolved from one time to the next, I discovered a theory of art education. It may seem a very obvious solution, but the obvious is so often difficult to see. Briefly, from kindergarten to the conclusion of college, each person would recapitulate the entire history of art, but in certain abbreviated forms, both by *doing* as well as *studying* the *evolution of man as artist.* The important point is, at each of their age levels all students would progressively be engaged in a period of art *corresponding to their own stages of development,* not only as artists but in general. Then, for the first time, art would indeed become a genuine form of education related to a major aspect of every human, something art has never been except for the few who somehow manage it on their own.

"We are *all* born artists, and we have to begin as did the very first artists in human history, and every artist since—at the beginning. The principles involved are essentially those obvious to all, where the teaching of reading, arithmetic and the like is concerned. As it is, elementary schools first succeed in crushing the actual artist that *naturally* exists in each of us, while colleges crush the living quality of art history, so necessary if we are to experience contemporary art without confusion.

"Such an art education would achieve two major results: (1) the majority, those who would not become artists, would leave their schooling as persons truly educated in art, adequately prepared to experience and evaluate the art of their own times; (2) the minority, those who would go on to become artists, would be prepared to enter directly the art effort expressing the highest potentialities possible in their own times."

S: "On the walls of your workshop you have a series of what you call 'teaching models.' When did you make them, and for what purpose?"

B: "They were made in 1951-1952 for purposes of illustrating the general possibilities of what I meant by development from 'form-relief' to 'space-relief,' as I explained that in the *Letters.* To give an abbreviated explanation: One begins with a 'sculptural' form, the cube, which has a similar symmetry both vertically and horizontally. One starts with low relief cubes, to continue an evolution from where Mondrian's 1917 space-planes leave off. There follows an experience of learning through various stages of form as dominating space. Gradually the cubes rise from the backplane of the relief, the composing moving from simple to more complex *orders of expression.* There is a developing experience from the linear dimensions of painting to the three dimensions of relief forms. *For the general evolution is from painting, not sculpture.*

"Now follows a gradual development from cube-forms into space-planes. This entails moving from the symmetry of the cube which, you will remember, has similar symmetry in two directions, to a symmetry that is different in its horizontal as distinct from its vertical aspect, namely, the form of the oblong. As form develops into ever more complexity of creation, the form itself undergoes development. The development of form towards spatial composing is like a closed fist that gradually opens until the whole hand is completely spread out as a straight plane in space. There has been a transformation of form-relief, the 'sculptural' consciousness, into space-relief, the Structurist spatial consciousness

of both nature and art. One has become a composer of spatial planes in the color of light. Space now occupies the central role, as form did in the past. While this form of art becomes unique to man, it is dependent upon nature, thus becoming an *extension of nature as creation.*"

S: "But in your own case you have not started with cubes, have you?"

B: "No, since such an awareness only came later out of my own work. It represents, in my view, the new 'life-class' for the young artist. The development I set out for when I began, simply did not exist anywhere. I had to discover it through a complicated way, unnecessary now. Why should not others profit from my experience? This kind of re-orientation is of the very first importance, because it will *necessarily* take place with every generation in the new direction of art. As the art develops, so will the teaching of that art."

S: "In other words, you have changed your views respecting your own development?"

B: "Yes, and I hope to keep on doing so. Of what use is it not to keep on developing? One should feel very fortunate in being able to revise

his own ideas. It is a critically essential part of the nature of human experience.

"Whenever any one can realize improvement for the development of the new art, it would be worse than absurd not to prefer it. Such revisions will go on endlessly, as endlessly as the rediscoveries of nature and human nature. What I have learned in my experience is that the new factor of stability in art will lie in constant change. This was true of the mimetic period, only not so vividly obvious for each generation. Today we are becoming acutely conscious of nature and the nature of human existence as essentially the dynamics of process in which it is impossible to stand still.

"So too the art education we spoke of earlier, both for the public and the artist, would be recognized as a process constantly being improved *creatively*. Education itself becomes an act of creation. Nature and human life are essentially creative. Without experiencing that and always knowing more from experience, whatever we experience and know cannot mean very much to our existence. Creation, it seems to me, is the key to man's realization of his potentiality to be truly human."

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## ABOUT THE PANELISTS

CHARLOTTE SCHUCHARDT READ has long been associated with the Institute and Korzybski's work. See Editorial in this issue. In her teaching at IGS Seminar-Workshops she develops non-verbally some issues raised in her verbal presentation on the panel.

MARIAN VAN TUYL's name is widely known in the field of dance, for she has become outstanding as a concert dancer, a teacher and an editor. A native of Michigan, Miss Van Tuyl has been on the faculty of the Dance Department of Mills College for many years. Before that she taught dance at the University of Chicago (where the editor of this Bulletin enjoyed participating in her classes). While at Chicago, she attended a seminar by Korzybski in 1935, before the Institute was incorporated.

Miss Van Tuyl will teach dance composition at Connecticut College School of Dance in the summer of 1965. Besides her teaching throughout the year, she is the editor of Impulse, an unusual artistic publication in the field of dance.

She is married to Douglas Gordon Campbell, MD, a psychiatrist in San Francisco, who helped Korzybski found the Institute in Chicago in 1938, and who continues his interest in GS as a member of the Board of Trustees.

ALLEN FORTE is Associate Professor of the Theory of Music at Yale University. He was born in Portland, Oregon. After his service in the Navy in World War II, he completed his formal education at Columbia University. He has taught at Columbia, the Manhattan School of Music and the Mannes School of Music. In 1959 he went to Yale, where he teaches graduate courses in music theory, and specializes in the theory of musical structure and the history of music theory from the 18th Century to the present. He is the author of three books, including a widely used college textbook, Tonal Harmony in Concept and Practice (Holt, Rinehart & Winston, 1962), and many articles in professional journals.

In 1958 Mr. Forte prepared the performance translation of Arnold Schoenberg's opera, Moses und Aron. Since 1950 he has been editor of the Journal of Music Theory, published by the Yale School of Music. He recently received an award for computer applications in the humanities under a grant from the IBM Corporation. The \$9,000 award will support a research project in the structure of atonal music.

Mr. Forte attended the IGS Seminar-Workshop in 1951.

BARBARA MORGAN has reacted to visual stimuli as both painter and photographer. A native of Kansas, she joined her family in a move to California when she was nine months old. Her preoccupation with painting started early in her life, and has continued to interrupt a photographic career which was inspired, in part, by her marriage to Willard D. Morgan. Mr. Morgan is editor of the 20-volume Encyclopedia of Photography (New York: Greystone Press, 1963-64).

For more information about Mrs. Morgan, readers might wish to see aperture 11:1, 1964, subject: Barbara Morgan. Editor Minor White said of her, 'Her direct experience observations of the feeling states peculiar to painting and to photography add much to the perennial discussion of what kind of an art is photographic.' The address for aperture is 42 Vick Park A, Rochester, New York, the cost for the copy is \$2.50.

NATHAN LYONS served three years as a photographer in the U. S. Air Force. His work in photography includes writing, teaching, and editing the publication Image, bulletin of the George Eastman House of Photography, Rochester, N. Y. With Syl Labrot and Walter Chappell, he produced the book, Under the Sun (New York: George Braziller, Inc., 1960).

ALICE ANDREWS, born in Erie, Pa., studied at Pennsylvania State University and Rochester Institute of Technology. She began photographing in 1959, attended Ansel Adams's Workshop in 1961. She also studied with Nathan Lyons in 1961 and 1962, has been a member of the staff of George Eastman House since 1962.

Information about CHARLES BIEDERMAN and LEIF SJOBERG is given in the interview from The Structurist. We may add that a retrospective one-man exhibition, 'Charles Biederman: The Structurist Relief 1935-1964' is scheduled by the Walker Art Center in Minneapolis for 30 March - 2 May 1965.

Leif Sjoberg is from Boden, Sweden, and attended Uppsala University. With W. H. Auden he translated Dag Hammarskjöld's Markings. He has also translated a volume of Ekelof's poetry with Muriel Rukeyser, to be published soon.