

THE PSYCHOLOGY OF AESTHETICS

A New Explanation of the Psychological Process of Creative Activity and of the Nature of Art, uniting the Arts and Sciences in a Joint Field of Physics, Aesthetics and Psychology; together with a Statement of the Natural Laws governing such Process and a New Orientation for Art Method, Education and Criticism derived therefrom

A Paper for Section I (Psychology) of the American Association for the Advancement of Science, being given in the session opening at 9:30 A.M. December 29, Room 328, Dallas Hall Building, Dallas, Texas.

by

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Regarding papers for the AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE and the MODERN LANGUAGE ASSOCIATION OF AMERICA, by Dr. Frederika Blankner Western Reserve University, Cleveland, December 29th and 31st, 1941  
PRE-PUBLICATION COMMENTS

on "The Unity of Art, Man and the Cosmos as Vibration Design, Revealing the Identity of Art, Science and Religion," a previous initial paper presenting the general concept involved. The present papers are the first development of this concept in its basic fields of psychology, education and art, including literature.

(Quoted by Permission)

THOMAS MANN: "I can only say that I regret not to have known this work at the time I wrote The Magic Mountain. I am not a scientist but it seems plausible to me that our inborn aesthetic feeling is somehow founded in the cosmic."

ALDOUS HUXLEY: "Stimulating. I read it with great interest."

ROBERT MAYNARD HUTCHINS: "The press reports on the initial paper offer ample indication that the studies can be carried to a successful and influential conclusion"

CLAUDE BRAGDON: "A conception that illumines with sudden light. It all works out to a charm. I get a great sense of liberation. Her great discovery is so stimulating to the mind and intuition that one wants to do one's own thinking about it."

HENRY GODDARD LEACH: "A novel and arresting interpretation of the functions of vibration."

J. PAUL VISSCHER, Head of the Division of Biology, Western Reserve University: "A subject (the correlation of science, art and religion) that sorely needs further elucidation. I am confident that Miss Blankner's contribution in this field will be eminently worth-while."

JOHN J. O'NEILL, Science Editor, in the NEW YORK HERALD TRIBUNE: "Science: Vibrations Held To Be Cause Of Cosmic Patterns - Woman Scientist Declares Star Galaxies in Space are Shaped in Same Way: Vibration which controls the forms into which matter shapes itself is considered by Dr. Frederika Blankner, of Western Reserve University, Cleveland, as the common factor responsible for the appearance of the cosmos in all of its details and for the basic principles of art."

CARL K. HERSEY, Chairman, Department of Art and Archeology, University of Rochester: "Original and vital in its approach."

C.M. TREMAINE, Director of the NATIONAL BUREAU FOR THE ADVANCEMENT OF MUSIC, New York City, And Chairman of the National and Inter-American Music Week Committee: "Challenging. Significant to all serious students of music."

LOUISE WHITE, Managing Editor of ANGLO NEWS SYNDICATE - "Wherever English is Printed" "Thrilling. Outstanding. Unusual insight. Points the way for many future developments of spiritual and material benefit to mankind."

From the Field of Religion:

EDGAR J. GOODSPEED: "What the author proposes is what man most wants to know and so is immensely attractive to us all."

REV. SPEAR KNEBEL, Rector of Trinity Episcopal Church, Albany: "Of tremendous value in the reconciliation of Science, Psychology, Art, Religion and Philosophy."

REV. SEVERIN LAMPING, Franciscan Friar, author of Through Hundred Gates, etc: "I am much interested in the forthcoming book. Whoever can help to accomplish a unified outlook on the universe deserves lavish praise."

REV. GEORGE GREYER: "The author seems to have drilled down to a foundation hitherto unexplored, and in doing so to have made a discovery that will give a new direction to scientists and philosophers."

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# Science: Sound Vibrations Held To Be Cause of Cosmic Patterns

## Woman Scientist Declares Star Galaxies in Space Are Shaped in Same Way

By John J. O'Neill

Vibration which controls the forms into which matter shapes itself is considered by Dr. Fredericka Blankner, of Western Reserve University, Cleveland, as the common factor responsible for the appearance of the cosmos in all of its details and for the basic principles of all the art through which man expresses his reactions to the outer world.

The experimental basis for Dr. Blankner's theory is the familiar laboratory demonstration of figures formed when uniformly distributed sand is set into vibratory motion on a metal plate, which is thrown into oscillation by rubbing a violin bow along its edge or by other means.

When the plate is thus moved the sand particles are bounced upward from the surface with each vibration and move away from the areas of greatest motion to areas where there is little or no motion. The sand forms tiny mounds which extend in straight or curved bands over the surface of the plate, indicating the location of the nodes, or areas of quietness.

### Basis of Composition

Beautiful geometric figures are formed in this way, some of them simple and others complex. The nature of the figures can be controlled by regulating the size and shape of the plate, the frequency of vibration and the points at which the vibrations are impressed and those at which damping is applied.

Some of the designs consist of straight parallel lines and others of rectangular and diagonal patterns. Radiating star patterns are produced under some conditions and under others circles and curved lines are generated. When two or more of the simple designs are combined, very complex patterns result. The vibrations produced at the point where the violin bow is applied are reflected from the edges, producing a complex situation in which some waves reinforce each other and others produce neutralization. The sand particles come to rest in the areas where neu-



Bettini photo  
Dr. Fredericka Blankner

tralization take place. These are called nodes. The designs produced are known to physicists as "Chladni figures."

In the Chladni figures Dr. Blankner finds the basis of what artists call composition in pictures, or the relation of forms to each other, and of lines and masses of light and shade, or of colors. She also finds in them the explanation of the fundamental nature of form, or the shape of things.

The Chladni figures studied are two-dimensional and permit of more direct comparisons to drawings and paintings. Using these relations as a starting point, Dr. Blankner has extended the relationships to three-dimensional structures.

### Urges More Study

Dr. Blankner's academic work has been confined largely to the study of man's expression through the medium of the various arts. Before entering her present work as assistant professor of Romance languages at Mather College at Western Reserve, she occupied a similar position at Vassar College. She was graduated from the University of Chicago in 1922 and in 1926 received the de-

gree of Doctor of Letters from the University of Rome. She was invited to present her theory at the meeting of the Modern Language Association of America in Boston last week, and did so in paper entitled "Art, Man and the Cosmos as Vibration Design."

Dr. Blankner, in a summary of one phase of her work, said: "In truth, all of our arts are reflections of the great composite art or vibration of the Creator by which He has created the universes and holds them in space."

"More study is needed by some physicist with the eye of an esthetician to define the laws completely for both fields, and especially to study the production of similar figures in three dimensions by vibrating particles suspended in gas or liquid, since this more closely approximates our three-dimensional world created by higher-dimensional vibrations."

Applying her theory to the cosmos, Dr. Blankner finds several orders of patterns, one within the other in a continuous series. In the larger pattern the various universes, or galaxies, throughout space are formed into a gigantic pattern, each universe acting like a single grain of sand on the vibrating plate. The areas where the galaxies are located are the quiescent regions of space where they can exist in a stable state, while in the empty regions are the dynamic areas where the vibrations are strong.

Within each galaxy, such as our own Milky Way universe, there is, according to Dr. Blankner, another pattern which governs the distribution of stars and other matter, causing them to form streams or arms of the spiral nebulae type of structure, or even the globular type.

"The bodies of human beings," she says, "occupy the nodes of a type of vibration probably higher than that which forms the more purely material bodies."

"As the cosmos may truly be regarded as an emotional or psychological, as well as a biological, physical, chemical or other type of phenomenon, so it may with exactness be considered an acoustical phenomenon, only an infinitesimal fraction of the full scope of vibrations being within the range of our hearing or other senses.

### "Everything Is Music"

"Since all visible things that we see are the nodes of acoustical vibrations, not only architecture but everything else is music, either frozen or in motion. The material world is the pattern of a cosmic orchestral score in progress of being performed."

"Truly 'the night is filled with music' and 'the stars sing together.' They are all, indeed, held, revolved and rotated by the vibrations of a great song, or the thought of a song, just as the grains of sand are made to rise and fall by the musical vibration of the violin bow

## What Scientists Are Doing

### U. S. Produces Quinine

Although quinine, essential in the treatment of malaria, is obtained from a tree native to South Amer-

restrial matter, where it might be created by a neutron emitting a positive electron. Dr. Rojansky suggests in the current issue of "The