

## **Wisconsin Academy review. Volume 14, Number 4 Winter 1968**

Madison, Wisconsin: Wisconsin Academy of Sciences, Arts and Letters, Winter 1968

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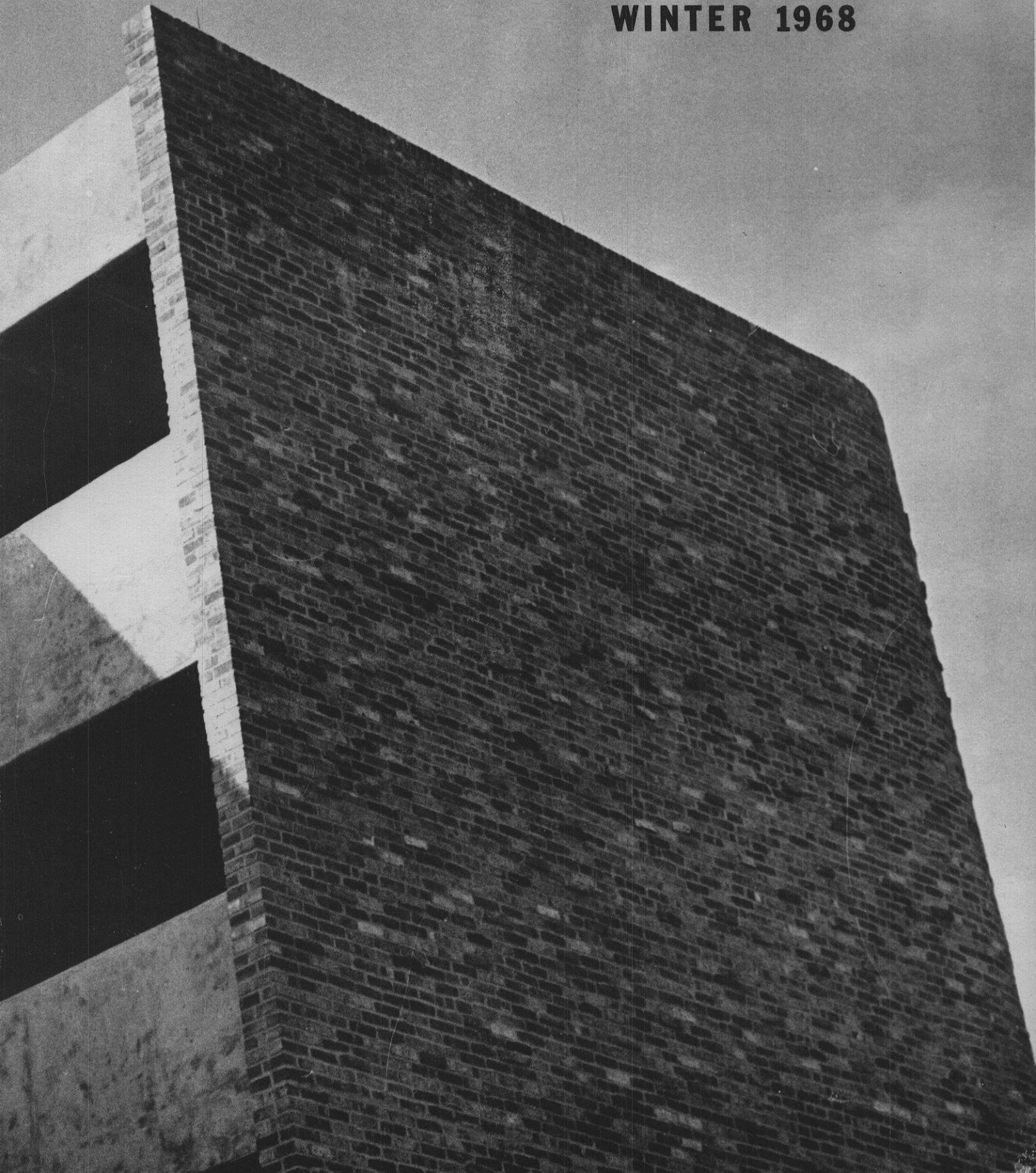
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# **WISCONSIN ACADEMY REVIEW**

**WINTER 1968**





# The Wisconsin Academy of Sciences, Arts and Letters

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Published quarterly by the Wisconsin Academy of Sciences, Arts and Letters. Editorial office: 1909 Regent Street, Madison, Wis. 53705.

Correspondence relating to the Academy (information on membership, dues payments, change of address notices, undelivered copies of the magazine, orders for single copies (\$1), etc.) should be sent to the Treasurer, Jack R. Arndt, Room 614, 606 State Street, Madison, Wis. 53706.

Second class postage paid at Madison, Wis. The date of this issue is January 31, 1968

# WISCONSIN ACADEMY REVIEW

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## CONTENTS

## FEATURES

## ACADEMY NEWS

1	Guest Editorial	Miller Upton
2	The Nature of Play	H. Clifton Hutchins
6	Art and Nature	Michael R. Kazar
11	What We Want From Our Water Resources	Robert A. McCabe
14	People and Places	
15	Retirements	
16	New Members	

Cover Profile and About the Authors

## STAFF

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### "...With Liberty and Justice for All"

THE PERSISTENT dilemma facing American society is determining how we can safeguard both individual liberty and social justice at one and the same time. Protection of one without reference to the other is not difficult to achieve. But despite our noble declarations and slogans, we don't seem to be able to find the formula that will protect both at the same time—at least to the same degree.

We discovered over the years that unfettered individual liberty, while creating a vigorous and creative social environment, can result in the development of instances of social injustice through the evolutionary process of the survival of the fittest. *Laissez faire* individualism in the economic sphere has produced instances of monopolistic exploitation or the abuse of the consumer through fraud and misrepresentation. In the social sphere it has resulted in crimes against persons and property. And the gradual evolving of social strata under such conditions of freedom has operated against the ideal of equal opportunity.

As we have tried to offset these instances of injustice through the legislative process, however, we have tended to delimit freedom and the important voluntary initiative of the individual. Were the restrictive laws able to be discriminating in their impact there would be no social loss, for only those who abuse their freedom in terms of the rights of others would be

affected. But such is never the case. Labor laws, open housing laws, "fair trade" laws, etc., affect one and all alike.

In our legitimate desire to protect individual members of society against injustice, we pass laws which progressively delimit the right of private property. The claim of some in defense of this approach that human rights must come before property rights is a *non-sequitur*. For the right of every individual to own and use property is one of the greatest of all human rights. Without it we are no more than slaves.

The essential difference between a free society and an authoritarian society is the degree to which voluntary individual action can prevail as opposed to compulsory individual action. Stated another way, the difference is represented by the extent to which the individual is allowed to be a humane, self-determining member of society. And the more we lump all people together in our legal process in an indiscriminating way, the more we kill the humane spirit—the incentive for individual self-determination and voluntary action. Unless our legal processes can be discriminating in their impact so as to penalize only those who abuse their freedom to the detriment of others, we can never aspire to a truly free society.

This proposition may provide the key to resolving the dilemma of promoting social justice and pre-

serving individual liberty at one and the same time. Rather than building a colossus of particular laws we should enunciate clearly those rights which our legal processes are supposed to protect in support of equal justice, and anyone who believed he had been aggrieved could file specific suit. The general supposition would be that everyone was capable of living in freedom responsibly, but there would be means for legal action against anyone who betrayed this public trust by abusing the rights of others.

It does not profit society to advance the cause of one man by pulling down another. We must work diligently to improve the lot of those for whom our free society seems to impose a special hardship—those who through no fault of their own are unable to compete effectively in a free society—but in doing so we must not penalize the ones who make the most of their opportunity under freedom.

It is clear we have not done all we can in this regard. We don't need more restrictive laws of an indiscriminating nature, but we do need honest and vigorous enforcement of those basic legal rights upon which our society is founded. We need to live by the principle that a man is innocent until proven guilty, not restrict the principle merely to court procedure.

By Miller Upton



*"There is considerable scientific evidence that the healthy personality is one who not only plays, but who takes his play seriously. There is also evidence that the inability and unwillingness to play reveals an insecure or disordered aspect of personality."*

*—Dr. Wm. C. Menninger*

## THE



By H. Clifton Hutchins

Everyone knows what play is and who does it and why. But possibly such knowledge is not as precise as it might be. Webster's Dictionary gives 29 meanings of the verb "to play". Manifestly not all of these uses employ the word in the same sense. Attempts to classify them inevitably come up against the question of what is the root meaning, if any, that is utilized in these several different ways.

Without much question we can say that one basic form of play is the frisking, frolicking, romping behavior that is characteristic of small animals including children. A "game" is a formalization of play that involves the use of rules.

The playing of a musical instrument can even be construed as acting playfully; Huizinga points out that while the term 'playing' is never applied to singing, "... the connecting link between play and instrumental skill is to be sought in the nimble and orderly movements of the fingers" (8:42).

In a brief treatise on play, John Dewey made a distinction between the ability to occupy the imagination fruitfully with a subject, i.e. the ability to allow the mind to play freely about the subject, and the inability to enjoy intellectual activity upon a subject except in the interest of some preconceived theory or some practical utility. He suggests that "This capacity to draw satisfaction from the immediate intellectual development of a topic, irrespective of any ulterior motive, represents a genuine outgrowth of the play attitude—a special form which it may take." (5: 727) It is possible, then, to act playfully, to frolic so to speak, with ideas as well as with people and things.

The second form of play is recognizable to most people as the game of 'make believe'. The Oxford English Dictionary refers to it as "A mimic representation of some action or story . . ." Here the child or adult takes on the personality of a real or imagined figure and in his own mind actually becomes that other individual for a time. This phenomenon is reflected in the resort to fantasy which is an expected element of child behavior and observable on occasion in people of all ages. It is also revealed in the proclivity of adults particularly to play different roles to achieve different ends. This tendency is described by psychiatrist Eric Berne in his book *The Games People Play* (1). It is the 'playing at' being another person or thing that has significance, for the tendency to 'make believe' seems to pervade the lives of all human individuals.

Another class of uses of the verb 'to play' is found in figures of speech. To 'play fair'; to 'make a play for'; to 'play at'; to 'play down'; to 'play up to'; to 'play second fiddle' all carry at least some connotation of playing a role. To be 'in play' (e.g. the ball is in play); to 'play off' (e.g. a tournament); to 'play out' (e.g. play out the rope) all carry some vestige of frisking, frolicking, romping behavior. Possibly 'played out' (worn out, exhausted) carries some of the same meaning. And there appear to be uses in which the word 'play' is employed with little relation to any root meaning, as 'to play (wreak) havoc' to 'to play' (use) a team member.

### The Attributes of Play

What, then, are the essential characteristics of play? The one

# NATURE OF PLAY

point on which all authorities seem to agree is that play involves activity. Free movement as in frolicking, running or throwing as in a game, mimicking others, are examples. The *Oxford English Dictionary* speaks of the "primary notion" of play as being: "to exercise, bestir or busily occupy oneself." Dewey describes play as: "A name given to those activities . . ." etc. (5:725; emphasis mine). Blumenfeld says " . . . we consider play always as an activity which is more than pure phantasy-awareness and dreaming." (2:473). Huizinga concludes that play is "tolerably well defined" as " . . . a voluntary activity or occupation executed within certain fixed limits of time and place" (8:28). Movement or action thus seems to be widely regarded as integral to the basic play forms.

Quite as significant as the fact of being active is the sense of freedom in play. The antics of young animals in their frisking, romping, gamboling behavior are characterized by a freedom not found in other experiences; they are able to run, jump, throw, strike or become passive subject only to restrictions that they themselves may impose. This limitation is significant inasmuch as all freedoms are by their nature limited in some degree. Individuals have the freedom to choose what they shall do and how they shall do it, all within the limits imposed by time, resources, companions and even personal disabilities. Games limit freedom of choice and action by their rules, but these are probably no greater in their effect than self-imposed regulations.

Huizinga makes the point that "All play has its rules." and that the player who ignores or transgresses the rules is a 'spoil sport'

(8:11). Nevertheless the sense of freedom in play is one of its most valued characteristics both to the child, even though he accepts most limitations without bothering to think about them, and to the adult who deliberately elects to enjoy that sense of freedom even momentarily by putting aside adult cares and responsibilities for a time.

A further characteristic is the element of purpose, or rather the lack of purpose, in play. Continuing Dewey's definition which was mentioned earlier, play is " . . . activities which are not consciously performed for the sake of any result beyond themselves; activities which are enjoyable in their own execution without reference to ulterior purpose" (5:725). He later draws a distinction between play and amusement on the grounds that the latter has the purpose of passing time pleasantly while the former is intrinsically motivated by enjoyment of the doing. Dewey also draws a distinction between (nonpurposive) play and (purposive) work. On the face of it, frolicking play seems devoid of motivation beyond the enjoyment of doing. Perhaps the same is true of imitative play but there is at least a question of whether the imitation has a purpose (e.g. learning) in the life of the individual. Possibly the learning that grows out of play can better be described as a 'function' of play in the life of the young than as a 'purpose' of play.

Intrinsic motivation is found in all forms of play activity; indeed the pleasurable reaction would seem to be its *raison d'être*. It is an essential quality not only of frolicking and imitative play but also the particular quality that is referred to in such terms as 'word play', 'intellectual play', 'love

play' and others. Play is pleasurable when it satisfies some need of the individual. It is satisfying—thus pleasurable—to eat when hungry; to find companionship when lonely; to be successful in doing something; to make demands on senses, muscles, intellect and thus to enhance maturation; to cast off for a time the cares and inhibitions of the adult world and release tension in play forms usually associated with childhood.

Play is always voluntary. To be otherwise would take away the element of spontaneity that arises from the free unfettered character of the activity. It is a natural type of behavior for young animals which has significance for their social, physical, intellectual and emotional development even though it may not be said to have an ulterior purpose. The nature of this factor can perhaps best be seen in the absence of volition; play by direction or prescription of another person lacks the freedom and the spontaneity that are integral to the basic play forms. Blumenfeld says " . . . we cannot imagine forced 'play' which still maintains its character of play for him who practices it." (2:473).

Play is repetitive. This appears to be true both with respect to the resumption again and again of the frolicking play of the kitten or child and with respect to the repeated imitation of a favored person or of a situation such as 'playing house'. In each case there is some variation as the behavior is repeated. Games, for example, are played and replayed, the continually different relationships of the elements or markers helping to maintain interest. Some authorities attribute more importance than others to this quality. Certainly the repetition of playful acts



is implicit in each of the historic conceptions of play, however valid or invalid these may have proved to be from the standpoints of truth and logic.

Somewhat less obvious than the dynamic, purposive, volitional and repetitive characteristics of play is its ethical quality. Play cannot be said to have a moral function yet it is characterized by ethical morality. No child or adult plays for long in a manner that is contrary to the moral customs and beliefs of his companions. As in the educational process where the teacher bears an obligation to further the use of knowledge for good rather than for evil purposes, play is structured within the limits of moral acceptability. To be sure there are exceptions: gambling is a form of play that is morally acceptable to some but not to others; it doesn't flourish for long in environments where it is morally unacceptable to most of the people. Being an element of culture, according to Huizinga "... as a distinct and highly important factor in the world's life and doings", play is by definition oriented to the mores of the civilization in which it is found.

### **The Functions of Play**

What is the role of play in the life of the individual? Certainly such a pervasive type of behavior must serve useful ends of some nature.

It can reasonably be inferred, since play is a principal form of conscious behavior in the young child, that it has a developmental function. Play is the child's way of growing up; it provides him a natural outlet for normal impulses. The characteristics of play, just described, give clues as to the nature of this development: bodily activity brings about physical development of musculature, skeletal structure and the nervous system; repetition motivated by pleasurable reactions brings reinforcement of perceptual, sensori-motor and affective learnings; the ethical quality suggests the development of moral sensitivity. Play stimulates the imagination, fosters emotional control, enhances coordination.

These are all factors of direct concern in the educational process. John Dewey credits Plato with having discovered, and Froebel with having rediscovered, the importance of play in education and its significance as an approach to learning and human development. He goes on to say:

The foundation of all later growth is the activity of the earlier period, which, so far as the consciousness of the individual is concerned, is spontaneous or playful. Hence the necessity that the earlier plays be of such a sort as to grow naturally and helpfully into the later more reflective and productive modes of behavior (5:727).

But the values of play in child development are not limited to the physical, the intellectual and the moral. Play is the child's way of learning how to get along socially; it is his vehicle for learning about himself, his family, his neighborhood and his community. Because much if not most play involves relationships with others, it affords continuing opportunity for social intercourse and the learning of what he can and cannot do to others, of leadership and followership, of winning and losing, of adaptation and adjustment to environmental circumstances. Imitative play is one of the ways a child has of working off something that is bothering him. In short, it is thru play that the child learns about his environment and his peers; sharpens his senses and adds to his perceptions; grows and matures physically, intellectually, emotionally, morally and thus establishes the foundation for his adult life.

A second function of play is recreation. Just as the developmental function is applicable principally to children, this recreative function applies mainly to adults. It seems unlikely that children need or have recreative experiences in the sense that adults have them. With play as his principal occupation, the child does not require "refreshment after toil" except as he is refreshed, and thus re-created, by eating, sleeping and the satisfying of other basic needs.

The adult, on the other hand, is continually subject to stresses from which he needs relief; continually driving himself to achieve, often past the point of diminishing returns; continually experiencing hungers and other stimulations which he is not able fully to resolve. Quite as important in its disequilibrating effect is the absence of tensions brought about by stimulus hunger: the feeling of emptiness arising from lack of affection; the frustration created by the absence of demands on mind and body; the sense of futility that comes with the realization that one's talents are not needed.

These forces build up to such intensity that the organism demands relief, the result being that the individual seeks experiences which will refresh and reinvigorate him. In some instances this recreation-seeking behavior reflects a casting aside of adult norms and expectations and a resort to play forms ordinarily associated with childhood. Whether such regressive behavior is induced by reason, permissiveness, use of alcohol or other means, play is nevertheless used by adults as a vehicle for recreation.

A third function of play is displacement, i.e. the substitution of behavior which for the moment is acceptable to the individual in place of less acceptable acts which he wants to and probably would otherwise have used. Play often serves the purpose of permitting escape from unpleasant tasks as when one stays away to play rather than go home to study or practice. It affords a means of releasing aggression in a socially-acceptable manner; gives opportunity, in make believe, to succeed in doing something without having to compete with reality; offers a chance to be bold and brave when he and everyone else knows he is 'only playing'. In explaining this point, G. Stanley Hall has said: "... to have shot at an enemy with a blank cartridge that may singe relieves the ill-wisher, the desire to use a bullet is aborted, and so tension is relieved, and the object of hate is safer." (7:74)

For the most part this is harmless psychological trickery in either children or adults; it is utilized both in the treatment of mental disorders and in sublimating aggressive behavior of normal individuals. But there is a point of frequency beyond which playfully-assumed fantasy behavior partakes of the character of a neurosis, thereupon becoming harmful. And there is a sometimes frustrating abuse of displacement when aging persons with a genuine need for the sense of being wanted and useful once again are offered social froth and amusements by misguided recreation leaders.

A further function of play is historic in nature. In a sense this is another dimension of the educative function of play referred to earlier as 'developmental'. For as long as man has been able to communicate with his peers, play in the form of dramatic stories and games has been used to transmit the culture of peoples from one generation to the next. Huizinga looks upon play as an integral aspect of the culture of a people, speaking of it "... as a distinct and highly important factor in the world's life and doings." As an anthropologist he suggests that "... anthropology and its sister sciences have so far laid too little stress on the concept of play and on the supreme importance to civilization of the play-factor." (8:foreword). In the preface to her classic compilation of childrens games, Alice Gomme has pointed out the historic function of play:

... as a means of obtaining an insight into many of the customs and beliefs of our ancestors. Children do not invent, but they imitate or mimic very largely, and in many of these games we have, there is little doubt, unconscious folk dramas of events and customs which were at one time being enacted as a part of the serious concerns of life before the eyes of children many generations ago. (6:xvi)

### Definitions of Play

Crystallization of the nature of play and even of some of its salient features in a simple definition is

not an easy task. Some writers avoid the task, some describe play at length and some define it with considerable care. John Dewey's description of play as "A name given to those activities which are not consciously performed for the sake of any result beyond themselves; activities which are enjoyable in their own execution without reference to ulterior purpose" has been cited previously. Rainwater is comprehensive in his conception of it. "Play", he says, "is a mode of behavior either individual or collective, involving pleasurable activity of any kind not undertaken for the sake of a reward beyond itself and performed during any age period . . ." (9:8) Blumenfeld says of play: "It is a voluntary and mostly social activity independent of practical purposes and disengaged from consciousness of responsibility." (2:475).

These conceptions are comprehensive in the sense of including the full scope of play and setting forth at least some of its essential characteristics. But not every writer's notion of play is as definitive as those just given. Schorsch defines it as "... the limitless unfolding of the rational nature in fancy" (10:33) while another recent writer, Shivers, describes play in comparably broad terms as "... a spontaneous activity ending in the satisfaction of an inherent desire or need of the individual for the pleasure involved" (11:51). Equally unsatisfying in pinning down the essential nature of play in brief form are Brightbill's description of it as "... the free, happy and natural expression of animals—especially the human animal" (3:27) and Claparedes' reference to it as "... a free pursuit of make-believe ends" to which he adds: "The domain of play is the paradise of the 'as if.'" (4:259)

An inductive approach to the nature of play leads to several conclusions: first, that it is a form of behavior and, more particularly, dynamic behavior, i.e. active rather than passive; second, that it is intrinsically motivated behavior and has no ulterior purpose; third, that it has usefulness

to the individual in enhancing his development and affording him recreation. Stating its character more concisely, it can be said that play is intrinsically motivated, pleasurable activity that has significant developmental and often recreative value to the individual.

Play is a pervasive influence in the life of man; it does, in fact, enter into the very fabric of his role in society with individual development and social relations being its warp and woof. Man continually plays different roles in his relations with others; he repeatedly enjoys the play-like qualities of stock market operations and of politics as well as of litigation, war and semantics; he is continually challenging himself often in the spirit of play, with new demands on his capabilities as in camping, competitive sports and even in business dealings. In short, man uses the play-form thruout his life because of the satisfactions it brings.

1. Berne, Eric *Games People Play*, New York, Grove Press, 1964, 192 p.
2. Blumenfeld, Walter "Observations Concerning the Phenomenon and Origin of Play" *Philosophy and Phenomenological Research* 1:470-8, 1941
3. Brightbill, C.K. *Man and Leisure*, New York, Prentice-Hall, 1961, 292 p.
4. Claparede, Ed. *Psychologie de L'Enfant* quoted by the author in his "Sur Le Nature et La Fonction de Jeu" *Archives de Psychologie* 24:359, 1934.
5. Dewey, John "Play" in Monroe, Paul (ed.) *Cyclopedia of Education* 4:725-7.
6. Gomme, Alice B. *The Traditional Games of England, Scotland and Ireland*, New York, Dover Publications, 1964, Vol. I, 433 p., Vol. II, 531 p. from original editions by David Nutt, London V.I 1894; V.II 1898.
7. Hall, G. Stanley "Notes on The Psychology of Recreation" *Pedagogical Seminary* 29:72-99, 1922.
8. Huizinga, John *Homo Ludens* Beacon Press, 1955, 220 p (paperback).
9. Rainwater, C.E. *The Play Movement in the United States* Chicago, University of Chicago Press, 1922, 371 p.
10. Schorsch, R.S. *Psychology of Play*, doctoral thesis, University of Notre Dame, 1942, 116 p.
11. Shivers, Jay S. *An Analysis of Theories of Recreation*, doctoral thesis, The University of Wisconsin, 1958, 224 p.



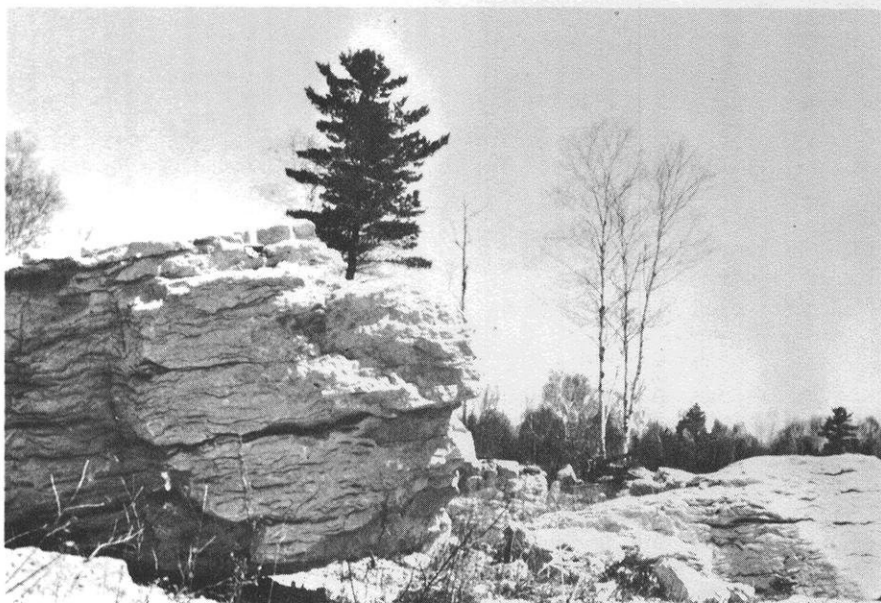
# ART AND NATURE

**T**HE ARTIST produces during quiet reflective seclusion, in isolation. He experiences life to its fullest in order to liberate himself so that life's experiences take on meaning; to contemplate one's beliefs; to assimilate significant aspects of life's meanings; and to produce an expression worthy of one's convictions.

Nature is the sole source of motivation. In its purest sense nature is the direct cause of the painting coming into being. Nature is

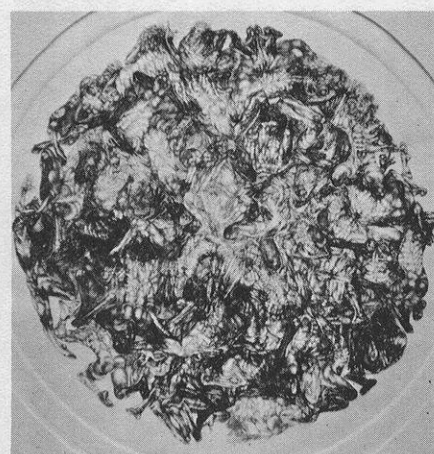
mit that the two are one. Yet, how can nature exist outside of man? In the realm of artistic creation the nature which exists outside of man is that nature which stimulates the artist into action. Once the creative statement is begun, nature and man being artist become one and the same.

Visual nature as it exists in nature outside of man differs from nature which is visual to man. The visual absorption of nature by man is tempered by the visual capabilities of man. What the artist sees in nature differs from what exists in nature itself.



By Michael R. Kazar

the cause of the visual, emotional, and intellectual qualities of the painting. Here I speak of nature and nature being man. I sub-



As mentioned earlier, nature being the cause of the visual, emotional, and intellectual qualities of a painting, it must be further stated that emotion, vision, and intellect depend not only on nature as it exists outside of man, but the degree of expression of each is determined by nature which exists in man as man. For example, a

- (1) Landscape, Washington Island, Wisconsin;
- (2) "Man Molecule," drypoint engraving on lucite by John Deckard;

**"Slide talk" presented at the Annual Meeting of  
the Academy, April 28-30, 1967, at Oshkosh.**

temptestuous (emotional) event visually appears emotional. Yet, it is emotional in itself. The degree or intensity of emotion to be expressed.

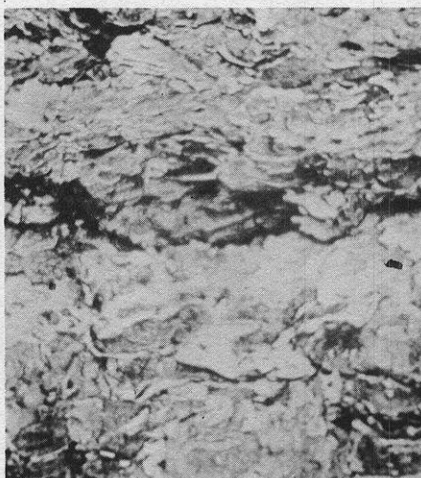
The art form is determined by the effect of the visually emotional event upon the particular emotional state of man as artist at the precise moment of creation. In other words, the emotional quality of the painting will depend upon the degree to which nature in its emotional state coincides with the emotional state of man.

An exact coincidence is an impossibility since no man "feels" toward nature in identical fashion because of factors affecting his emotional behavior which have little to do with the emotional quality of nature. Influences outside of the emotional aspects of nature, such as economic, social, and personal frustrations affect individual stability. One can only react emotionally to nature when man is free from frustration. Peace of soul is essential for creative production, and the emotional reaction of man is dependent upon the susceptibility of nature's emotion at the precise time nature is being experienced in the creative act.

Nature determines man's emotion toward nature itself, and toward man himself. Nature causes man to motivate his own actions. Man does not determine atmosphere, nor does he determine his own emotions. His emotion is determined by the acts of nature. Yet, since man and nature are one and the same in the process

of creation, man as artist and nature are inseparable.

Decay of nature is caused by nature as nature and by man as nature through neglect. Nature is the cause of rotting timber, spoiled crops and desolate landscapes. These are natural acts which set the stage for emotional response.



The artist does not cause this. Such conditions already exist. They are emotional changes in nature which stimulate the artist into action bringing together the established state of nature and a particularly unique position (emotionally) of the artist.

Shadows cast upon the earth's surface are not caused by the sun itself but by the interception of the sun's rays by natural objects attached to the earth. The artist reacts to the visual change. Shadows caused by natural and man-

made objects determine the emotional reaction by the artist, and the result will differ from the same stimulus if affected by darkness, moonlight, rain, or fog.

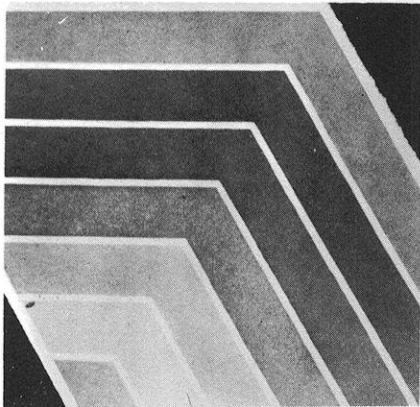
An intellectual painting is generally considered to be one which is not visual or emotional. I do not mean to say that the intellectual painting lacks emotion or vision, but that the painting survives basically on its intellectual qualities. Vision or visual comprehension demands nature. Emotion may accompany or closely eliminate the visual aspect of nature when transmitted to canvas.

Nature is the cause of intellectual qualities of a painting; that is not to say that the result of the interpenetration of man as artist and the nature outside of man does not cause a change. The change exists in the painting. Nature outside of man initially causes the intellect to react. The reaction, however, may appear remote from nature as it exists, for now the artist is concerned with the intellectual problem of space. What one knows of nature and how one sees nature are different from one another. When the artist paints nature as it exists, it is not visual in the strictest sense. Nor is it emotional. The artist's concern is with what is, and since the artist is able to visually observe nature only from a single vantage point, he can transmit upon the canvas only what he sees. Yet he knows that more of nature exists which he has omitted from his expression. Thus, the intellect must



now conjure ways of introducing the other segments of nature that were omitted from the painting. Thus, if trees are the object of nature being expressed, not only the sides of the trees visible to the eye must be expressed but also those aspects of the tree not visible to the eye.

The artist relies upon visual nature only as an initiative force. After that, the painting progresses according to the will of the intellect.

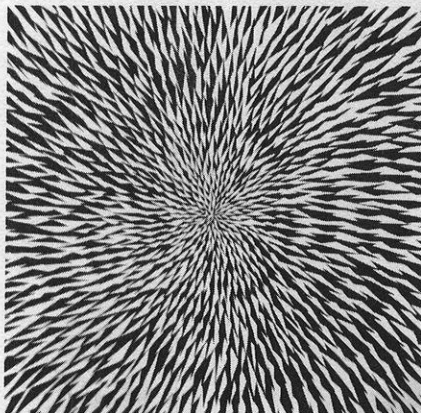


It is understood that all art forms are guided by one's intellect. Yet, the underlying distinction between visual, emotional and intellectual qualities is dependent upon the personality and purpose of the artist, and nature acts as the motivating force from which the artist's energies operate.

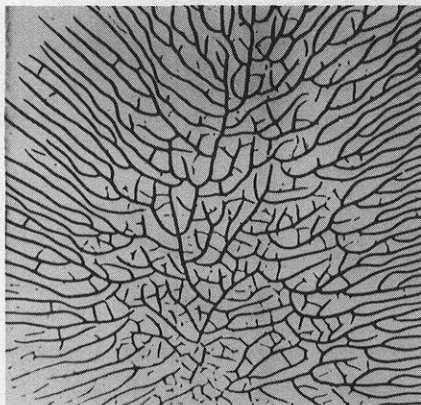
Some years ago someone observed Jos. Albers seated at the seashore in Hawaii facing unmatched vistas of palm trees and blue sea. In his hand he held a sketchbook and from time to time, emerging from the obvious enjoyment of the scene, Albers would carefully put together some abstract diagrams, using a pencil. The observer mentioned that these sketches distilled up for him, paradoxically, a visual essence more like nature than any one of the many post cards and paintings he had seen of the famed view.

To analyze Albers' art, or to purposely use a term with obsolete connotations, to describe its subject matter, there is no need to postulate a right to abstract art, or to take an upwards plunge into a fourth dimension. As it is usually understood, the term "realism" is a singularly limited and limiting term. Out of the immensity and variety of physical nature, it singles out as proper fare for art only the most meager fringe. Looking at either Albers or Anuszkiewicz's work, one such adherent of routine realism softly complained, "There are no trees, no people, no faces." For this spectator as for many another, the hub of reality remains this consoling cluster: human features that sum up our daily contacts with a neighborhood we know by "heart" and its familiar neighbors.

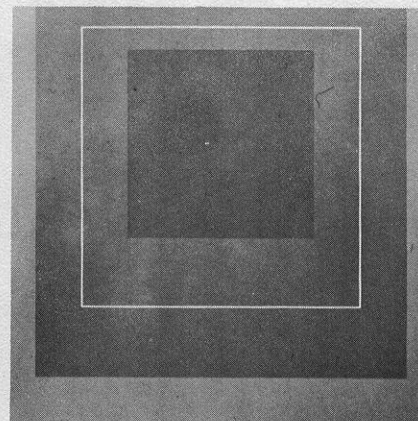
Between this comforting world of our own daily experience and an equally real universe, there lies



a chasm that would make the good spectator queasy, another kind of realism that would rudely jolt him out of his horizontal everyday-ness, unless he succeeded



in building around himself an opaque accretion, a cell, within which he may live and breathe in relative comfort; wherein he is at least spared the sight of the immensities that Sutej saw and dreaded. It is not the artist's task to cater to the good spectator's practical plea for faces, especially for such well tried ones that it would be ingratiating to limit to this tender knowledge our image of the universe. Great art is made neither to please nor to displease.



If truly great, it should at least make uneasy those whose lives are lived in self-chosen prisons similar to the large soap bubbles and giant clam shells in which Hieronymus Bosch locates his pin-headed and gymnastic lovers.

To let go of routine appearances, a change of scale suffices. One feels the vertigo of leaving the known world behind in the pearly touch of Vermeer, who, patterning his art after what he had seen through the home-made microscope of his closest friend, Anthony Van Leeuwenhoek, had lost faith in the oneness of form: he had seen it dissolve under his eye, in a sample drop of water or of sperm, into legions of clashing forms. The spherical units with which Vermeer builds the loaf of bread in *The Milkmaid* mean much more than a textural device. They are an anguished try to integrate with optics the novel science of microscopy, before whose advance the world that previous masters had believed in collapsed.

A telescope will offer visual truths not unlike those seen in a microscope. It shows an equally

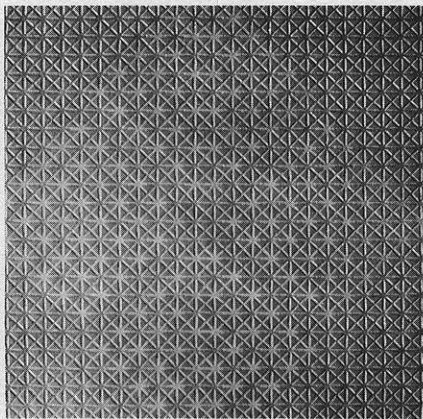
- (4) "Rainbow Rhythms," painting by Kenneth Noland;
- (5) "Bombardment of the Optical Nerve," tempera and pencil on canvas by Miroslaw Sutej;
- (6) Photo of crack in dry ink from Kepes *The New Landscape*;
- (7) "White Line Squares No. 7," painting by Josef Albers;



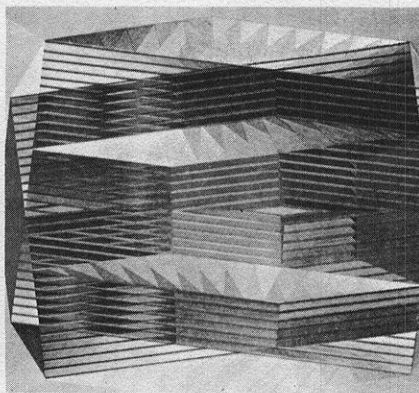
featureless world, globe after globe patterned after a canon of balance more readily expressed in mathematical terms than in aesthetic ones. It is beauty also, but poles away from the anatomical, a scaffolding of numbers instead of bones.

The man who looks through a microscope, or through a telescope or with good will at the paintings of Albers, Stankiewicz, Gorkey or Baziotes, comes to feel how small is the distance, let us say, between the *Venus De Medici* and any one of the *Dancing Peasants* of Breughel. The Italian sculptor and the Flemish painter both paraphrased daily experience. Both remain comforting in their every-dayness, and ask little more for their art than to be checked against the daily exercise of our senses, tactile and visual. Perhaps the *Venus* is at one end of the approach to the visible world, close to infrared as it were, while Breughel's peasants hover on the borderline of the ultra-violet. Yet the span that both works stake is limited, and needs no Columbus to survey it.

Albers believes that art and nature are at peace, that his own art springs from nature. Of course the two can be linked metaphysically, for example by quoting Aristotle, "Art follows nature in its operation." But artists, dealing with concrete forms, colors and lines, are scarcely nourished by philosophy. The works of Albers, Stankiewicz, and others stir the spectator much more radically than a merely generalized assertion; yet it escapes the range of the more usual definitions.



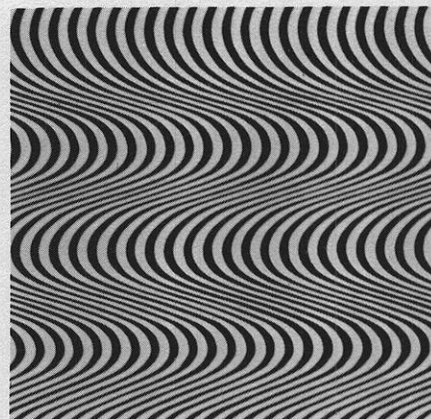
One theory has it that the challenge of art is, for the spectator, to partake of the born and trained awareness of the hyper-sensuous artist, with tactile and visual richness underlined. A *Venus*, a *Lobster* by De Heem, a *Renoir Buttock*, a *Glass of Ale* by Hals, all ring the bell that starts the dog salivating, procure a visceral well-being, that needs hardly refer to the head to function. True, but art is of many kinds, and man's roads to enjoyment are diverse and placed on divergent levels. The art of Mieczkowski, Agan or Tadasky proposes an opposite effect, a discipline that does not lack, however, its own kind of pleasure; to retire into oneself, to stop fluttering and retract the wing under the wing plate as does a beetle at landing; to stop the excited palping of antennae, retreat into willful hibernation and conform again to the austere form of



the pre-natal grub. Contemplation, the word that Poussin wisely chose to express the purpose of art, has very little to do with sensuous surfeits. These artists, instead of flattering and expanding the spectator's self, chose to prune and to cauterize it. This sort of artist is so intent on grasping the very core of things that he lets go of all the surface phenomena around it. To better express this inner order, he will give up faceted appearances and cloying nuances.

In art history, there are eras where sensuousness recedes, when the artist, turning his back on the obvious, both hides and exposes his meditative secret. Then prettiness, beauty even, are deemed expendable. Dominico Veneziano's *Annunciation* is less immediately ingratiating than, say, *A Virgin and Her Bambino* by Raphael; yet a passion of sorts went into the making of these perspective diagrams, a passion at least as demanding as that of Raphael.

Everyday sights remain the expected content of the art that those who like it term realistic, and those who disdain it dub photographic. As scale changes, and without leaving the realm of the visible, we come closer to what moves planets and atoms, invisible laws. Laws dominate our life as did the three fates of old, minus the human features that Greek Mythology, somewhat optimistically, attributed to the three sisters. Two main laws, horizontal and vertical—are strung implacably straight: The plumb-line of gravity that each of us carries inside himself as if it were a physical conscience, so to speak, ready to reproach man his least attempt at obliquity; and another law, made visible in water levels, that checks from a whole ocean to the content of a cocktail glass. Between the prongs of this compass, set at right angles to each other, man lives cautiously, as if they were the jaws of the dragon that was an essential prop of medieval mysteries. A third law, equally faceless, is one of rhythm, meaning for us mostly the clocked beat of the heart and meticulous intake of breath, computable in intervals



(8) "Union of the Four," painting by Richard Anuszkiewicz;

(9) "Adele's Class Ring," painting by Edwin Mieczkowski;

(10) "Current," painting by Bridget Riley;



and numbers, and as crucial as they are untranslatable in terms of story-telling.

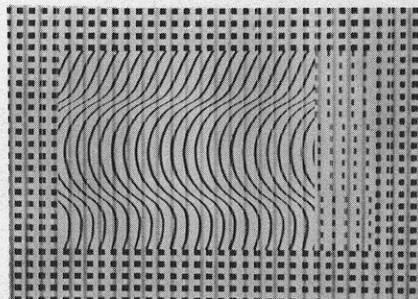
Ruled verticals and horizontals, numbers set to an organic beat, these are living truths that realistic art may, at its best, do no more than suggest. For the painter, to pitch into diagrams of straight lines and measured numbers is not an escape, but a licit approach to the deeper truths. Such geometric art is not without tradition despite Gene Davis' sharp distrust of a past with which misguided professors attempt to smother our present. From the makers of the pyramids to Mondrian, some masters have felt the vertigo of shedding appearance for substance.

Unlike Mondrian, whose verticals function as spears meant to pierce through and through the borderline between the picture world and the outer world, John Goodyear designs with no loose ends, no stray matter to escape the limits of the frame, unless it be through the expanding vitality of pure color. Active lines are deflected even before they reach the edge of the picture.

While Mondrian states the law—plumb and water level—Goodyear, Albers and the others, without denying to law its absolute worth, in milder and personal fashion propose situations that become geometrical and legal labyrinths. Man, imperfect and limited, contacts outer dictates of perfection in genuine puzzlement.

The coolness of Goodyear's craftsmanship, his obvious love of the law, make one feel that in the midst of such geometric fantasies and pulsating images, the artist longs for a rest, for a superior state in which incidentals, without being annulled, may be allowed to register correctly within the frame of a stable absolute. Though the art of these men longs for this state of repose as does a saint for unitive vision, the artist's exacting conscience refuses to hurry the process. It is only in a very few cases that diagonals are laid to rest on a water level, or are realised true to plumb.

Thus, in the works of these men, geometry acquires dramatic undertones, man pleading his right to imperfections even as he handles the cold perfection of numbers and geometric relations. One could say that, in measuring mind against law, today's op and systemic painters humanize geometry. They are saying in essence, "But for me a circle, a triangle, has a face," and they mean it. For it is geometry only as it percolates inside man's nature and not geometry in a void that the artists treat of.

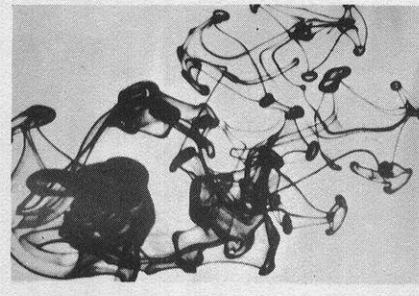


There is humor of a sort, there is earnest, in their figures, not so perfect that a mathematician or a geometrician could call them bonafide science, and yet planted at heights out of the grasp of those who sigh only for Venuses, De Heem's succulent lobsters or Renoir's plump buttocks.

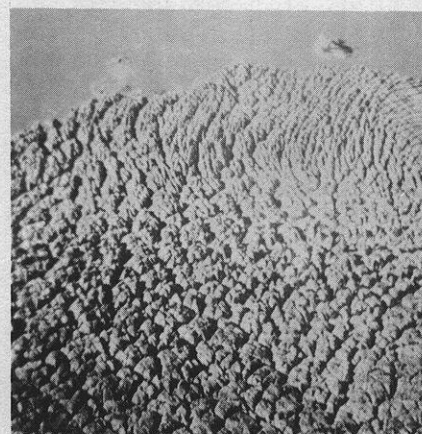
To develop a vision which brings the inner and outer worlds together, we need common roots once more. We are like Antaeus of old, whose strength, ebbing whenever he lost contact with the earth, his mother, became renewed each time he touched the ground. Spun out of our heads, science and art remain anemic and without root, and need strengthening contact with nature once again.



The natural world remains the common basis for all of us, even though it is changed beyond recognition from the world of nature known to our fathers. It still starts for us where we come in contact with it—through our senses.



Science has opened up resources for new sights and sounds, new tastes and textures. If we are to understand the new landscape, we need to touch it with our senses and build the images that will make it ours. For this we must remake our vision.



- (11) "Shifting Reds," by John Goodyear;
- (12) "Rocks and Waves" by Seshu;
- (13) Falling drops, ink in water, photo by Herbert Matter;
- (14) Nerve fibers within a muscle—photomicrograph by Professor M. V. Edds, Jr., Brown Univ.
- (15) Alaskan coastline, aerial photo by Bradford Washburn.

# WHAT WE WANT FROM OUR WATER RESOURCES

By Robert A. McCabe

[In the spring of 1966, the University of Wisconsin Extension Division conducted a Madison-Dane County Water Resources School in which panel discussion groups addressed themselves to the role of our water resources in a changing environment. The presentations were candid and revealing on the water-use activities of various municipalities, agriculture and industry. The questions and comments emanating from an audience of interested and informed citizenry were equally provocative and searching. For example, in the very last session on the program, a diminutive housewife under the badge of the League of Women Voters raised her hand and politely asked where the city of Madison disposed of its sludge. The answer: "In the marsh." Only the lateness of the hour prevented a full-scale discussion of this practice in an area of polluted lakes and where marshes are not regarded lightly.]

The report of this School entitled "Let's look at our water resources" attempts to summarize the position statements of the participants, but the candor and the flavor of individual presentations and the open forum were lost. One of the unedited papers is here presented just as it was given. —Ed.]

In college, it didn't matter how well I prepared the affirmative side of a debate question, the coach always put me on the negative team. In part, at least, I feel somewhat in the same position now.

Everyone at this conference is interested in the welfare of our water resources. Many have explained their personal or professional positions. Part of my role will be that of the devil's advocate in asking the leading questions or prodding, but neither is attempted with malicious or negative intent.

In the first session we were told that industrial chemicals entering Lake Mendota were of no consequence. We were told that pesticides were of little concern and that herbicides were little used and did not affect fish. When we began to discuss sewage disposal and sewerage problems, these it seemed were minor, and indeed there were no major problems. It occurred to me that maybe I had come to

the wrong meeting, and that the wretched sight and stench from our lakes in midsummer was an ocular and olfactory mirage. It wasn't until we began to talk about nutrient pollution where rural and urban areas are involved that the problem came into focus.

The charge of this particular session was stated in the form of a question: "What do we want from our water resources?" The key aspect of this charge is not in the words "water resources"; it is not "what," and it is not "want." It is instead the word "we." For what is wanted of our resources depends greatly on who "we" includes. If we are interested in the collection and treatment of municipal sewage or metropolitan sewage, "we" are those persons responsible for such activity. If "we" are fishermen, landowners, or industrialists our major wants are likely to be different, and sometimes in conflict. It is said philosophically that there are no "average citizens," but if there were, I think this is what they would want from their water resources:

(1) Water in abundance. They would want it in abundance because they use it in abundance. We were told that water use increased from 55 gallons per capita in 1890 to 150 gallons per capita in 1965. In spite of this increase Madison is abundantly endowed with both surface and underground water, and is assured of a reasonable degree of abundance.

(2) They want water availability—enough water for home and industrial use at a reasonably low rate. By its relative importance to human life, it is perhaps the cheapest commodity that they purchase. They want waters available for recreation to be exploited in, on, and under; and they don't want recreational use to conflict with other uses, nor other uses to conflict with it.

(3) They want high-quality water—water that is clean to the eye, to the nose, to the touch, to the taste, and to body welfare. When these personal standards are violated, quality disappears. In addition, surface-water quality cannot be disassociated from the scenic values of adjacent shores, nor can it be divorced from balanced plant and animal communities in or near the water.



(4) They want from their water resources a degree of permanence—in abundance and availability, and therefore also want safeguards to this permanence. Protection is needed for the sources of water, the aquifers which recharge and carry it, and for cleanliness which pollution tends to degrade. Indirectly, they expect of water that it be a commodity that can and must be managed and used equitably.

Our presence here testifies that we, too, want these qualities of our water resources. In hopes of obtaining them, we have met on three consecutive Monday and Tuesday evenings. I think this panel would be remiss if we did not make some sort of a brief summary checking and challenging some of the highlights. I took notes as best I knew how during the sessions, and if I misquote anyone, it is because of human frailty rather than intent. I can assure you, however, that my hearing aid was turned up at all times.

To me, one of the most discouraging aspects of these presentations was the general preoccupation with high costs. In the course of these talks the following quotations were recorded: "The city council would not stand such high costs." I hadn't realized before that any one person could speak for the city council; nonetheless this statement was made. "Do you want to pay high costs?" The thesis I hope to develop in a moment is that it is not a matter of want, but a matter of must as concerns cost. "Are Wisconsin people prepared to pay?" Again, ready or not, the costs are coming. "We do not have our money where our mouth is." But we had better have our money where our health is.

And lastly, the overworked cliché, "Put up or shut up." This is not an either/or situation, for if we do not "put up" some of us are apt to be "shut up" permanently. I, for one, don't want anyone—including city, county, state, or federal government—to tell me what I can afford and not afford. If the health and welfare of "me and mine" are in any way in jeopardy, there is little beyond keeping body and soul together that I would not pay. I am reasonably certain that within the lifetime of even the older members of this audience we will see that a greater and greater part of our annual income will be necessary to preserve a clean environment for our physical and mental health. Water is no small part of that environment. I hope that this conference will leave you with the awareness that we must make material sacrifice to live in a clean environment, and that the amount of these sacrifices may eventually rival educational and military budgets.

I was a little disappointed in that some public officials appeared to be piqued by questions asked by lay people in the audience. The matter of stand-by pumping equipment for sewage, for example, was regarded as a naive question. I, for one, continue to be naive. I am not dissatisfied with the fact that such equipment would be used infrequently, and that it is expensive, and that such stand-by pumps for sewage are so much different from the now in use stand-by equipment needed to draw water from the

ground. If we talk glibly about what we want of our water resources, we should expect to pay for it, and if we expect to pay, we shouldn't be told that it is too expensive for us.

I was also impressed by the encyclopedic recitation of data by the metropolitan sewerage commission representative, and in addition, his candor and straightforwardness in assessing the bypass-pollution of our lakes. I was equally surprised by the fact that the municipal sewerage system also engaged in raw sewage bypass and had no detailed records of when and how much, particularly since each bypass contributes to our already serious pollution problem. I think it would be an enlightening experience for everyone who lives away from the lake itself to be shown what raw sewage looks like when it decorates a shoreline.

I saw such sewage in Milwaukee, the city quoted here to have 500 miles of sewerage channels. This sewage contained human feces, toilet paper, women's sanitary napkins, and rubber contraceptives. If Madison's sewerage system has been able to render these solids into liquid form, it has indeed made a great step forward, but if it hasn't, then I ask you to think of the bypass in terms of what it will cost for stand-by pumps. This view was ugly; it is even ugly to describe, and I hope it will help deter us from too much preoccupation with cost.

The evils of bypass are unimportant relatively if all they offend is our eyesight and our nostrils in the summertime. If, however, one child dies of typhoid or paratyphoid, or a community becomes ill because of contamination by any member of the *Proteus* or *Salmonella* group of bacterial organisms, we may view our entire waste program in a different light.

It has been said time and again that there are no data to support this or that position relative to water resources. I caution you not to assume that because there are no data on an apparent detrimental activity associated with water resources that such activity is therefore not harmful. I caution you further not to be led astray by jargon. The term scientific "mumbo-jumbo" was used in describing some aspect of water management here. I want to be sure that you understand that the "mumbo-jumbo" is only in the minds of those who do not understand scientific terms, and is not to imply a confusion on the part of the scientist. To be sure, the scientist is not infallible, but he is not easily confused by terminology.

The over-all theme of these meetings was "City of Madison and Dane County Water Resources Program." Dane County is handsomely endowed with a number of lowland areas called marshes or wetlands. No where in the entire discussions were these singled out for examination and appraisal. In Dane County, marshes which are the land sponges and in part a biological safeguard mechanism for removing excessive polluting nutrients are being destroyed by drainage or by land fill at an exceedingly rapid rate. Did you ever hear of anyone dumping garbage or trash on a hill? Or putting building debris or an auto graveyard on a knoll? Any time a commun-

ity looks for a place to dump or to fill in or to cover with concrete, the lowland marsh areas are most vulnerable. These (wetlands) organic and inorganic sieves that filter and cleanse our water and cause its gradual flow are an essential part of watershed health. The fishery resource of our lakes depends in good measure on marshy shores. Lake Mendota has a water turnover every 5 years, but the constant replacing of watershed marshes by concrete and fill has caused the turnover in water to be accelerated. The nutrients that might otherwise be used by marsh plants and thus eliminated pass directly to the lake and now accelerate our pollution problem by generously fertilizing algae.

One of the most serious and unchecked abuses perpetrated against Dane County's lakes and streams is the exposure of subsoil through building construction—public, private, and industrial. Such blatant exposure of subsoil-siltation in the area of Middleton is evidenced in the choking up of Pheasant Branch Creek, and the actual creation of an island in the creek's delta. The same holds true for construction on the Hill Farms area, which through siltation via the storm sewers has added about 3 feet of silt to the bottom of the south side of University Bay. I trust that water-quality authorities will be every bit as much interested in making this soil-water abuse a violation as it will be in checking the effluent from cheese factories. I suspect the margin of industrial profit does not even favor the cheesemaker.

Further, I don't think that we should regard the matter of pollution lightly. In an earlier discussion a comparison was made between Madison and several other cities regarding sewage treatment, and one panelist pointed out that New York didn't treat its sewage, so there was no basis for comparison. This drew laughter from the audience. I was amused too, not by what was said, but by the clever timing of the remark. I don't think I have ever been accused of lacking a sense of humor, but I feel that a man seldom thinks when he is laughing. The fact that any city should dump raw sewage anywhere is hardly the occasion for a belly laugh.

In a recent session the main point made was that we should have a county-wide planning group with an adjunct implementing group. The legal footwork by which these bodies could be created was discussed at length. One of the speakers stated that he was happy to see that this had wide acceptance. To oppose, it would seem to me, would be tantamount to opposing motherhood and the church. If the learned speakers of that session agree that this is the best way to proceed, as an ecologist it would have my wholehearted support, but as a layman, I would also realize that by appointing a planning group and an implementing group, the problems would not necessarily be solved. As a start, it would be excellent. It is imperative that enlightened citizens become knowledgeable in this vital matter to preserve the quality of the water resource as part of the total environment.

While we in Dane County have problems distinctive

to us because we are headwater people, we must appraise the need for broader planning and implementing agencies. In some of the counties both to the north and south of us there are common water resource problems. I hope we set no one-county precedent. One Dane County legislator rightly called attention to the fact that while we are headwater people we are creating problems downstream. In one of the first sessions a question was put to one of the speakers about dumping effluent in the Madison lakes. A very emphatic "no" was registered. "No, we bypass our lakes and dump into the Rock River"—as if this were the end of the line. But when Janesville, Beloit, Jefferson, and the dozens of small communities and summer cottages also contribute to the Rock River sewage burden, and on downstream where other rock rivers are contributing to this degradation from Minnesota to Louisiana, the moral of the story is, I suppose, "Don't live in New Orleans."

Normally an ecologist does not attempt to predict without substantial supporting data. I will violate that rule to make two predictions for your consideration: First, when rapid urbanization such as we are seeing today is creating problems such as we are confronted with today, then ultimately there must be either a voluntary or a forced de-urbanization. In part, this is already voluntarily occurring as evidenced by the urban sprawl. Ultimately, legal restriction on human spacing and concentration might be imperative. It may not minimize all of the problem, but it will minimize some. In this prediction I am suggesting that we move people away from areas where their abundance is causing serious contamination of vital resources and spread them into areas where this contamination can be handled mechanically and biologically. The attempt here is to reduce the evils of human spacing for the welfare of people.

Secondly, I predict that it will be necessary to reduce all wastes associated with human existence to their elemental constituents largely by incineration—sludge, waste paper, waste wood—anything combustible will have to be reduced to its elements in ash. Complete and rapid (forced air) combustion should reduce or eliminate smoke hazards. These elements then can be returned in some way to the land without creating an adverse effect on large components of the now existing environment. These predictions may be neither new, nor profound, but they have not been dealt with thus far in our deliberations.

If we want water in abundance, readily available, of high quality, and with an assurance of a permanent supply, then we must expect to pay for, fight for, and on occasion, adjust our behavior for these wants.

Recently I closed my remarks in a similar talk with these words, and I repeat them here in part because they are apropos:

At this point in Dane County history a knowledgeable and alert citizenry should concentrate for its own survival not in making the good life better, but in making the good life lasting.



# ACADEMY NEWS



## People and Places

Gov. **WARREN P. KNOWLES** (A 65) (Madison) was awarded the honorary degree of Doctor of Laws by Ripon College last June.

Prof. Emer. **THOMAS N. BOBB** (A 58) (WSU-Superior) is continuing his associations with colleagues and students at the University by assisting in the school's biology laboratories.

Prof. **KENNETH B. RAPER** (A 56) (UW, Bacteriology) recently received the first Charles Thom Award presented by the Society for Industrial Microbiology.

Dr. **LON W. WEBER** (A 64) who served as dean of the UW-Marquette Co. Center since 1963 is currently serving as Assistant to the UW vice-president for University development and state relations.

Prof. **HARRY G. GUILFORD** (A 54) (UW-Green Bay, Zoology) is serving as a member of the overall Executive Committee for the development of the new campus.

The new Clearinghouse on Educational Facilities began operation on the UW Madison campus this fall supported by a grant from the U.S. office of Education. UW Library School Director **MARGARET E. MONROE** (A 65) is serving as a member of the Executive Committee for the project.

Prof. **ROBERT F. BLACK** (A 61) (UW, Geology) has been

invited by the Polish Academy of Sciences to address the Krakow International Symposium on the Evolution of Slopes.

Prof. **NORBERT ISENBERG** (A 65) (UW-Kenosha, Chemistry) is serving on the Interim University Committee which is concerned with planning the development of the new UW-Parkside campus.

Prof. **PHILIP M. BURNETT** (A 67) has been appointed Director of Libraries of the UW-Parkside campus.

Academy members appointed by the Coordinating Committee for Higher Education to serve on Advisory Committees to examine statewide higher education needs include Prof. **ELMER A. HAVENS** (S 65) (UW-Fox Valley Center, English), Director **LOUIS KAPLAN** (A 56) (UW, Memorial Lib.), and **PHILIP M. BURNETT** (A 67) (UW-Parkside).

The Wisconsin Conference on Biological Education was held at WSU-Oshkosh on September 30. Academy members serving on the Organizational Steering Committee included Profs. **JAMES W. UNGER** (A 53) (WSU-O), **ANNE B. LAY** (S 50) (Lawrence Univ.), and **RONALD K. GIBBS** (A 67) (WSU-O).

Prof. **ROBERT A. RAGOTZKIE** (A 60) (UW, Meteorology) is serving as the Director of the newly established Center for Marine Studies on the Madison campus.

Chancellor **J. MARTIN KLOT-**

**SCHE** (A 56) (UWM) recently appointed Profs. **GOODWIN F. BERQUIST** (A 61) (Communications) and **ERICK SCHENKER** (A 64) (Economics), UWM Academy members, to serve on an advisory committee concerning general matters of academic program development.

Prof. **REID BRYSON** (A 54) (UW, Meteorology) is serving as 1967-68 secretary-treasurer of the Madison campus chapter of Phi Kappa Phi, a national honor society.

UWM Chancellor **J. MARTIN KLOTSCH** (A 56) was elected president of the Association of Urban Universities at the organization's annual meeting in Detroit.

Prof. **ROBERT J. MUCKENHIRN** (A 41) (UW, Soils) was presented the 1967 Soil Conservationist of the Year Award by the Wisconsin Chapter of the National Wildlife Federation.

UW-Parkside campus Academy members serving as representatives to the new University Faculty Assembly include Profs. **ROBERT E. ESSER** (A 47) (Biology) and **JACK R. VILLMOW** (A 67) (Geography).

**C.D. BESADNY** (A 67) (WD NR) served as chairman of the 29th annual Midwest Fish and Wildlife Conference held in Madison in mid-December.

New books by Academy members include:

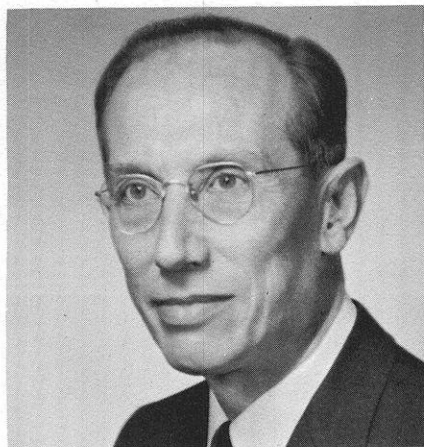
Dictionary of Jamaican English by **FREDERICK G. CASSIDY** (A

54), published by Cambridge University Press.

**Quick-Key Guide to Birds** by **JOHN T. EMLÉN** (A 55) and **DAVID ARCHBALD**, published by Doubleday.

## Retirements

CARL WELTY retired in September 1967 from the faculty of Beloit College, where he had taught zoology for 33 years, and served 30 as Professor and head of the Biology Department. He joined the Wisconsin Academy in 1935, his first year after coming to Wisconsin, and since that time has always been an active member. He was a Vice President in 1951-52; President in 1961-62; and since then has been a working member of the Council, recently chairman of the Citations Committee, now a member of the Centennial Committee. He was a Visitor-Speaker for the Academy's Visiting Scientists Project in 1966-67.



Carl Welty was born in Fort Wayne, Indiana, in 1901. He was graduated from Earlham College in 1924 with a B.A. in Biology, but the following year studied philosophy at Haverford College, receiving his M.A. in 1925. The academic year of 1925-26 he spent as a lumberjack at Latchford, Ontario, Canada, in order to serve simultaneously as an instructor in the Frontier College of Canada. He became instructor and Assistant and Professor of Biology at Parsons College from 1926 to 1934, with various leaves to complete work for his Ph.D. degree in zoology at the University of Chicago

in 1932. There his field of investigation was animal behavior. He came to Beloit College in 1934. In 1946-47 he spent a year's leave doing post-World-War II relief work for the American Friends Service Committee in France and Germany. Two previous summers he had taught in the Lake Geneva (Wisconsin) Summer School of Natural History. In the summer of 1963 he participated in an ecological seminar in Costa Rica, sponsored by the National Science Foundation; and in the summer of 1964 he taught ornithology at the Lake Itasca Field Station of the University of Minnesota. In the summer of 1966 he participated in the Bird Islands Study Cruise of the International Ornithological Congress, and its meetings in Oxford University.

He has always been particularly interested in birds and in conservation. He was a bird banding co-operator under the U.S. Biological Survey from 1926 to 1966; a co-operator in field work for the Iowa Game Management Plan in 1933-34; a member of the Wisconsin State Board for the Preservation of Scientific Areas, 1951-58; and is an active member of the Spring Brook Watershed Association of the Beloit area. In recognition of his ornithological work, particularly his book *The Life of Birds*, published in 1962 under his full name of Joel Carl Welty, the American Ornithologists Union made him an elective member, and the Wisconsin Society for Ornithology awarded him a Life Membership. In addition to long-time membership in these groups, he has held membership in the A.A.A.S., American Society of Zoologists, Inland Bird Banding Association, Wilson Ornithological Society, Phi Kappa Phi and Sigma Xi. Earlham College awarded Prof. Welty an honorary Sc.D. in 1964.

STEPHEN F. DARLING, Professor of Chemistry at Lawrence University for 37 years, received a master's degree "ad eundem" at the school's 1966 commencement exercises. He was chairman of the department and held the

Robert McMillan chair of chemistry. Cited also as having helped in the establishment of the Institute of Paper Chemistry through "imaginative scientific investigation", Prof. Darling has continued his affiliation with the research institute. The South Dakota native grew up in Minnesota and obtained both the bachelor and master of science degrees at the University of Minnesota. At Harvard University he was granted an A.M. degree and a PhD in organic chemistry. He spent the 1928-29 academic year at the University of Vienna under a Sheldon traveling scholarship.



A man of many hobbies, Prof. Darling gives attentive loyalty to the Lawrence Symphony where he has performed in the violin section since coming to Appleton. In that time he missed only one concert. A lecturer on several subjects, the talk in most demand has been that on cosmetics which he presented as his presidential address for the Wisconsin Academy. He is an avid stamp collector and a student of postal history in Brown and Outagamie counties. Both he and his wife participate in growing gladiolus and he has been secretary of the Wisconsin Gladiolus Society. During his Harvard years he constructed his own telescope, and still is interested in astronomy. Color photography is a natural hobby for a chemist who has done research on photo-engraving materials. His work on the Girl Scout Camp Council resulted in his receiving an honorary membership in the organization.

A member of the American Chemical Society since 1922, Prof.



Darling is a charter and founding member of the Northeastern Wisconsin section, as well as a past chairman. The American Institute of Chemistry elected him a fellow about 17 years ago. He is a member of the American Philatelic Society and several other stamp hobbyist groups, and one of the founders of the Outagamie Equity Co-op, serving as its president for

30 years. In 1953 he joined the Wisconsin Academy and was its president in 1956. Active in the promotion and development of the Junior Academy of Science, he served as Appleton area chairman for several years. When the Academy met at Lawrence University in 1966 he was chairman of local arrangements, and assisted at an earlier meeting there 12 years be-

fore. He has participated actively on the Academy Council since his term as president.

He plans to continue research at the Institute of Paper Chemistry where he has been working lately with Dr. I. A. Pearl investigating the bark and leaves of various species of poplar trees. Several papers already have been published on this study.—G.M.S.

## New Members

September 15-December 8, 1967

Kemp Library  
East Stroudsburg State College  
East Stroudsburg, Pa. 18301

Lovejoy Memorial Library  
Southern Illinois University  
Edwardsville, Ill. 62025

Swen F. Parson Library  
Periodicals Dept.  
Northern Illinois University  
De Kalb, Ill. 60115

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Mrs. Judith A. Svendsen  
Rt. 2, Box 210  
Onalaska, Wis. 54650

Morofsky Memorial Library  
Kellogg Biological Station  
Michigan State University  
Hickory Corners, Mich. 49060

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53 S. Eau Claire Ave.  
Madison, Wis. 53705

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Normal, Ill. 61761

Mr. Richard F. Modlin  
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Milwaukee, Wis. 53207

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849 S. 75th St.  
West Allis, Wis. 53214

Mr. Norman J. Schein  
WSU Campus School  
La Crosse, Wis. 54601

Dr. Richard D. Newsome  
Dept. of Biology  
Beloit College  
Beloit, Wis. 53512

Mr. Bernard J. Olup, Jr.  
3750 N. Humbolt Ave., Apt. 13  
Milwaukee, Wis. 53212

Mr. Gordon Charles Johnson  
710-16th Ave., East  
Superior, Wis. 54880

Dr. John J. Peterka  
North Dakota State University  
Fargo, North Dakota 58102

Dr. Carl L. Farnsworth  
3801 Robert Place, Apt. 11  
Stevens Point, Wis. 54481

Mr. Karl Andersen  
214 Lakeview Ave.  
Lakemills, Wis. 53551

## PRELIMINARY NOTICE OF THE ANNUAL MEETING AND CALL FOR PAPERS

January 9, 1968

The 98th Annual Meeting of the Wisconsin Academy of Sciences, Arts, and Letters will be held on April 26, 27, and 28 on the campus of the Wisconsin State University, Eau Claire. The theme of the meeting will be:

### Population Growth and Education in Wisconsin

The keynote speaker on Friday evening, the 26th, will be Dr. Alice Mary Hilton, President of the Institute for Cybercultural Research of New York City, whose lecture topic will be "Cybernetics, Population Growth and Education". She is the author of numerous books including The Individual in the Society; Logic, Computing Machines, and Automation; Human Beings and Their Machines. She received an honors degree in classics and comparative literature from Oxford University, and has a Ph.D. degree in mathematics and electrical engineering from the University of California.

On Saturday morning, the 27th, there will be a symposium featuring distinguished specialists discussing the theme of the meeting.

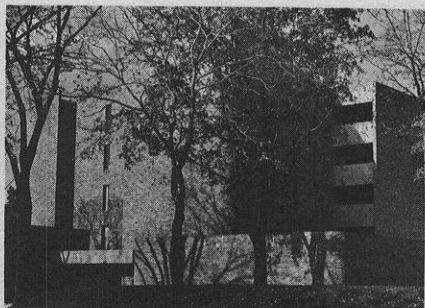
On Saturday evening, the Reader's Theatre of the University of Wisconsin--Milwaukee will give a dramatization of a recent bestseller, Division Street: America by Studs Terkel. This book consists of recent interviews which capture the perplexity, the love, the hatred, the hope, and the despair of today's city dweller. Presented with photographic backgrounds taken at the actual locations of the interviews, and accompanying sounds recorded at the actual scene, the dramatization aims at creating an unguided tour through the streets, rooms, and hearts of the modern city.

All members of the Wisconsin Academy are invited to submit papers for consideration by the Program Committee and for possible future publication by the Academy. Papers will be screened and members submitting them informed of the Committee's action as soon as possible. In order to accommodate as many speakers as possible, the Committee requests that science papers be limited to ten minutes and papers in the humanities and arts be limited to fifteen minutes. Please submit your paper to Dean Adolph A. Suppan, Chairman, Program Committee, University of Wisconsin--Milwaukee on or before February 1.

The program of the Annual Meeting will include a tour of the Uniroyal Company on Friday afternoon for early registrants, and a reception on Friday evening following the keynote address, the Annual Banquet on Saturday evening and tours (to be announced) on Sunday morning followed by a dinner.

We hope that you and your family will plan to attend this meeting at Eau Claire. Invite your friends to accompany you, guests are welcome at Academy meetings. Additional details, including the registration forms, will be mailed later.

## Cover Profile



Continuing the series illustrating Wisconsin arts past and present, this issue's cover features a striking example of contemporary Wisconsin architecture—the new Lutheran Social Services headquarters at 3200 West Highland Boulevard in Milwaukee. The handsome brick and concrete structure, warm in

color and rich in texture, is the work of Brookfield architects William P. Wenzler and Associates.

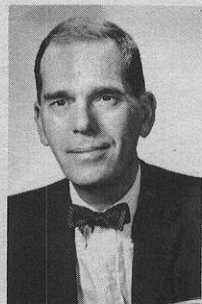
In practice in Wisconsin since 1955, Mr. Wenzler has received numerous prizes and awards for building design—among the most recent of them an Award of Excellence from the American Institute of Steel Construction, the First Award from the Metropolitan Milwaukee Association of Commerce, and an Honor Award from the Wisconsin Chapter of the American Institute of Architects—all for the Inland Steel Products Company in Milwaukee; a Merit Award from the Wisconsin Chapter, AIA for the Brookfield Evangelical Lutheran Church; and, with

Talisman House of Milwaukee, a prize in interior design from the Southeast Section, Wisconsin Chapter, AIA for the remodeling of the Civic Finance Corporation in Milwaukee. His work has been the subject of articles in both American and European journals and in September, 1967 earned his firm the Governor's Award for Creativity in the Arts, the first such prize awarded to an architectural firm.

The cover photograph was taken by Mary Ellen Pagel, UW Center System, and the Academy's Vice President-Arts, and Clarence Kailin, Department of Photography, University of Wisconsin, Madison.

## About the Authors

**MILLER UPTON** (A54), the guest editorial writer, is the Academy's Vice-President, Letters. Dr. Upton is President of Beloit College and an authority in the fields of education and business administration.



**H. CLIFTON HUTCHINS** (A54), is Professor and Chairman Curriculum and Instruction at UW, specializing in recreation, and Coordinator of the Program in Rehabilitative Recreation. He trained at Springfield College and UW, and has taught at the University of Michigan and Willamette University. Before coming to Wisconsin in 1952, he served as field

representative for the National Recreation Association. Dr. Hutchins has had wide experience in the fields of youth work, education . . . and play!



**MICHAEL R. KAZAR** is Associate Professor with the University of Wisconsin Centers in Manitowoc and Sheboygan. He specialized in art and art education at Milwaukee State Teachers College and UW in Madison, afterward teaching elementary, secondary and adult classes in Wisconsin for 22 years. Prof. Kazar was on leave last year to direct a \$290,000 art project in northeastern Wisconsin in the visual arts, dance, string

music, drama and creative writing sponsored by the Department of Health, Education and Welfare.



**ROBERT A. MCCABE** (A64) is Professor and Department Chairman of Wildlife Ecology at UW. A Milwaukee native, he took his academic training at Carroll

and UW, studying wildlife conservation under Aldo Leopold. Dr. McCabe has written papers on ornithology, mammalogy, botany and wildlife management, with special interest in the relationship of animals to their environment, reaching from the UW Arboretum to Mexico, parts of Canada, and Africa.



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