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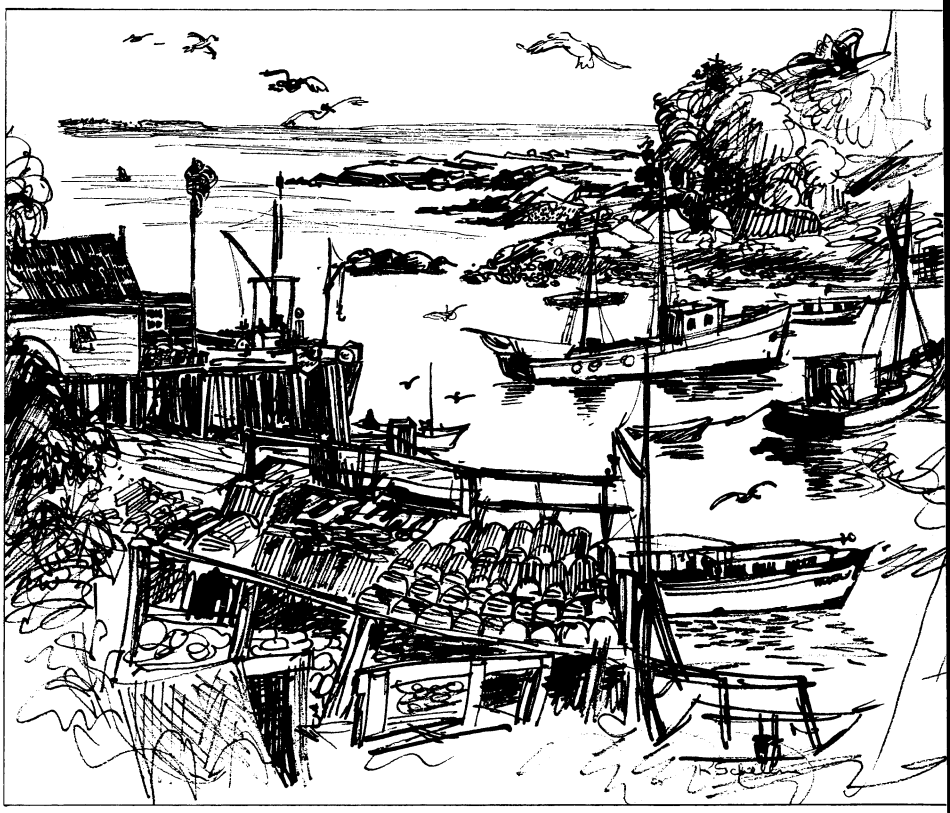
WISCONSIN ACADEMY REVIEW

Fall, 1958



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WISCONSIN ACADEMY REVIEW

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CHECK YOUR CALENDAR FOR THE NEXT ANNUAL MEETING AT
WISCONSIN STATE COLLEGE, PLATTEVILLE
FEATURING THE DRIFTLESS AREA IN WISCONSIN
MAY 2-3, 1959

SOME OBSERVATIONS ON LAKE LEVEL TRENDS IN SOUTHEASTERN WISCONSIN

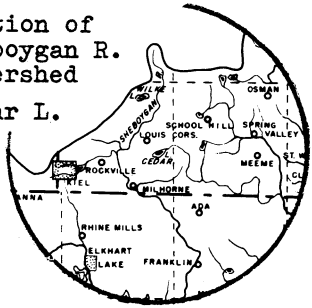
By Francis T. Schaefer, District Engineer
U. S. Geological Survey, Madison, Wis.

(Approved for publication by Director of U.S.Geol.Survey)

There are more than 300 lakes in southeastern Wisconsin with surface areas of 10 acres or larger. These lakes are important natural resources. They provide recreational opportunities to thousands of Wisconsin residents and visitors each year, and their scenic beauty alone is an asset which cannot be measured by any mundane economic yardstick.

Water levels have declined in many of the lakes in this section of the State since about 1953. The downward trend is a matter of concern, particularly to resort operators, owners of lake property, and all who are interested in the varied recreational activities provided by these bodies of water. An example of the current water-level trend is provided by records obtained on Cedar Lake near Kiel, Manitiwoc County. In August of 1958 the lake was at a level more than a foot below the lowest level previously recorded in August 1936, during the drouth of the 1930's. Also, North Lake, sometimes called Holden Lake, near Elkhorn, Walworth County, went completely dry in 1958 for the first time since the collection of records was started in 1937.

The water levels of so-called land-locked lakes, that is, lakes without outlet streams, reflect the level of the ground-water table. These levels are affected by climatic conditions. Activities of man such as land drainage, urbanization, the withdrawal of ground or surface water for municipal or industrial water supplies, may affect the water table and, in turn, the level of land-locked lakes. In most cases, however, the principal factor causing changes in lake levels is precipitation. To demonstrate that there is a relationship between precipitation and lake levels, the accompanying graphs have been constructed to show the average annual precipitation and cumulative departures from the long term average for selected U.S. Weather Bureau stations in the vicinity of two lakes in which fluctuations are believed to be representative of the area. For the North Lake area, precipitation figures are averages of precipitation recorded at Williams Bay, Lake Mills, and Waukesha. For the

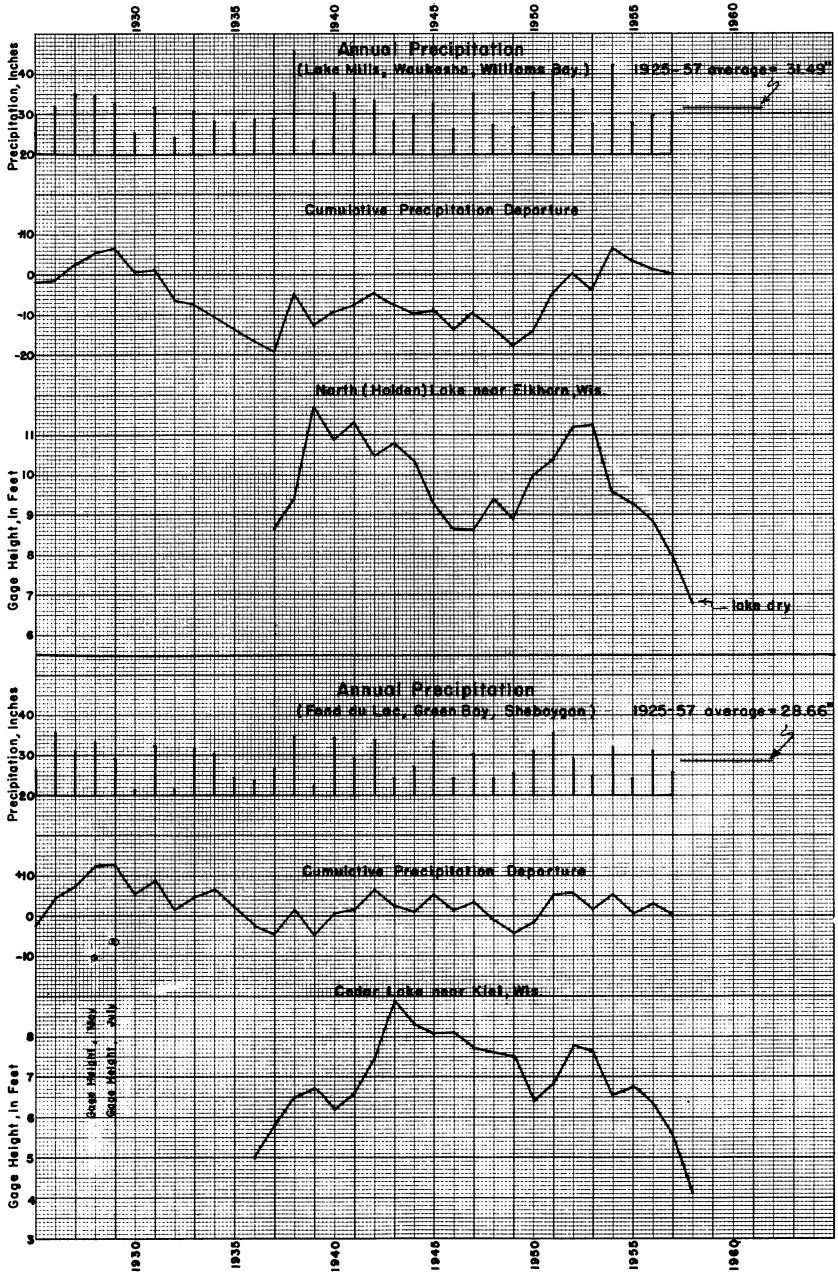


Cedar Lake area, precipitation figures are based on records from Fond du Lac, Green Bay, and Sheboygan. Water levels for these lakes have been plotted to the same time scale so that the degree of correlation in the variations can be observed. The precipitation records were compiled from publications of the U.S. Weather Bureau and the lake records are from the files of the U.S. Geological Survey, which cooperates with the Public Service Commission of Wisconsin in the collection of lake level and streamflow data.

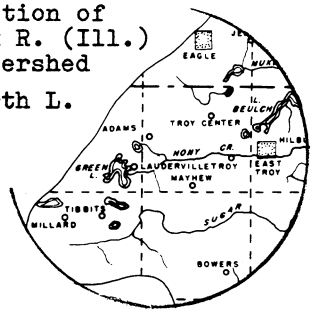
It is evident that during periods when precipitation is greater than average lake levels tend to rise whereas during periods of deficient precipitation lake levels decline. The relationship shown by the graphs is not constant, but this is not unexpected. The better index to trends in lake level appears to be the cumulative departures in precipitation. During periods when the departure graph has a positive slope lake levels usually rise, and when the departure graph has a negative slope, i.e., precipitation less than average, lake levels usually decline.

On the basis of the relatively short term records presented here, it is reasonable to assume that the levels of these lakes will recover when and if precipitation returns to average or above for a few consecutive years. It will be noted that the precipitation and lake level trends appear at times to be in reverse order. One reason for this is that the portion of the precipitation which reaches the lakes through the ground moves slowly, resulting in a considerable lag before this water has an effect on lake levels. The distribution of precipitation during any individual year is also important. Precipitation occurring late in the year is included in the annual totals but much of this water may not reach the lakes until the following year, particularly when such precipitation occurs in the form of snow.

An additional factor to be considered is whether the snowfall is early enough and heavy enough to prevent the ground from freezing. If the ground remains unfrozen throughout the winter the spring snowmelt will, in most areas of Wisconsin, contribute substantially to ground water and to lake storage. Snowmelt occurring on frozen ground will contribute a much greater immediate effect to lakes and streams, but of shorter duration. Also, some of the precipitation occurring as snow may be returned directly to the atmosphere by the process of sublimation.



U.S. Geological Survey, Madison, Wis.
September 1958



The continuing downward trend of the level of North Lake during 1954 might be explained by the precipitation pattern for that year. An unusually large proportion of the precipitation occurred during the months of June, July and September, when evaporation and transpiration losses are high, and 1958 was the only year since 1952 when the departure trend was not declining.

The choice of precipitation records is also important. For this study, records continuous since 1930 or earlier were selected, so as to demonstrate conditions for a few years antecedent to the first lake-level records, most of which were started about 1936. As precipitation varies rather widely, even for locations close together, stations were selected so as to provide a reasonable index of the precipitation on the drainage area of the lakes shown. It is considered that an average of three records bracketing a given area is more representative than a single record which may be appreciably affected by local storms not extending to nearby areas.

Precipitation appears to be the principal factor affecting the lake levels in southeastern Wisconsin. Other factors such as temperature, wind movement, and evaporation, are important also. It may be assumed that higher lake levels will result in the future if precipitation occurs in amounts considerably greater than has occurred in recent years. Verbal reports from long-time residents in southeastern Wisconsin indicate that some lakes have been lower in earlier years than during the relatively brief period for which systematic records are available.

# # #

I. A. LAPHAM, in his last scientific article, discussed the subject of the fish capacity of SE Wisconsin lakes (TRANS. Wis.Acad.Vol.III, 1876) saying in part:

"Some of the lakes, especially those not connected with a stream of running water, are thus becoming rapidly filled with marl and peat, causing changes that become apparent after long intervals of time. Some small shallow lakes have thus been changed to meadows within the recollection of the first settlers of the county only 38 years ago. ... There are also some changes ... indicating a less amount of water...Sand bars formerly covered with water are now dry, and in one case the bar extends quite across the lake....Another proof (is) ancient beaver dams in places where no pond could be formed at the present time, for want of running water."

HOW WISCONSIN DEVELOPS SELF-RELIANT COMMUNITIES

By Kenneth E. Rindt, Director of Research
Bureau of Community Development
UW Extension Division

For a variety of reasons, the terms "self-reliant" community and "community development" have gained increasing popularity in communities, in higher education, and in governments, not only here in the United States but in many countries abroad. This concern is especially a post-World War II phenomenon, caused by population shifts attending farm mechanization and the "population boom" in older urbanized areas. These changes have complicated the community's historic problems of adjustment to technological changes--for example, school expansion needs in relocation areas, adjustments to the automobile, demands for more and better governmental services, and a long list of human relations or social problems, as well as economic problems.

"As new occasions teach new duties" (Lowell), however, communities are constantly striving to solve these problems through democratic process without relying upon Washington or Madison for ready-made solutions. While frequently fumbling and failing, for a time--with local perseverance and outside guidance, encouragement, and faith--communities can, on their own, "pick themselves up" and overcome temporary delays on the road to successful problem-solving. In personality development of the child, such temporary failures are a part of the unfortunate--though inevitable--process of growth or development, and so it is also in community development.

In this brief overview we can discuss only a fundamental approach or concept of self-reliance and some basic process relationships between the community (with a problem) and the State or University (where outside help can be obtained to supplement local understanding and resources for problem-solving).

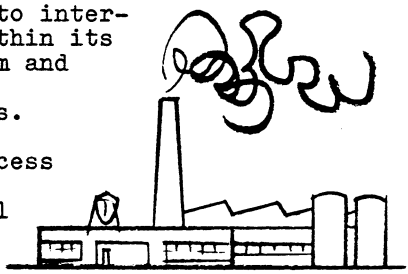
To begin with, some definitions of the terms "self-reliant" and "develop" are necessary. The state of being "self-reliant," the dictionary says, is one of dependence upon "one's own abilities, resources, or judgment," or a state of "confidence,""trust," "belief," or "faith." The

verb "develops" connotes action and growth. To many community leaders, such action involves the use of State government or University specialists who are available on request as so-called "experts" to advise on community problems or even furnish solutions or answers to them. Of course, in an age of rapid technological changes, the expert is needed as never before. For example, we depend upon the garage mechanic to overhaul, improve, or develop our automobile to a point of maximum efficiency and effectiveness! Too often, however, this is also the popular --and only--view of the expert who is invited to a community, viz., to provide technical counsel or solutions on economic, health, recreation, traffic problems, etc. Frequently, the community perceives the expert to be the problem-solver and tends to respect and rely upon his judgment too much.

But "developing" in Wisconsin communities, we feel, does not mean that the expert thinks for the community but rather works with the community to help its leaders grow in their knowledge, understanding, and problem-solving ability. The expert in his technical field, therefore, also tries to be an expert, to some extent, in the process of how adults can learn and develop ability to "help themselves" in meeting both the immediate and subsequent problems. The analogy with the garage expert is a useful one if we think of the "do-it-yourself" type where tools rather than solutions are furnished and the expert in some cases also shows or demonstrates how the problem can be diagnosed --sympathetically sharing the experience.

How does this "process" of "helping communities help themselves" work out? To illustrate, the Bureau of Community Development tries to encourage the research attitude that a community needs to identify, understand, and treat not only symptoms of its problems, but the conditions that created them. Stressing the importance of community research as a tool in adult education, it avoids doing the research for the community. In cooperation with other University and State agencies, manuals, guides, and personal counseling are furnished as a basis for self-help.

The community is expected to interpret the "outside" viewpoint within its own understanding of the problem and develop ability to evaluate the likely consequences of solutions.



What happens when this process is followed, for example, in a community economic or industrial survey? Typical of local comments is the following:

"the report served as the basis of continuing citizen interest and participation in government . . . and served as a springboard for new confidence in the community." Self-reliance, however, is not secured for all the time--once it is achieved. Maintaining it is an almost constant problem for all communities as leadership changes and new leaders emerge to assume responsibilities in the community. Such developmental training is a constant challenge to adult education just as similar training of our youth toward "self-reliance" is an essential part of their home and school life.

Wisconsin is beginning to find the tools of adult education that are needed to support local desire for greater self-reliance. However, much remains to be done to research this process within the community to better understand the social, economic, and political conditions and the techniques employed by local leadership that tend to build--or destroy--self-reliant feeling and "local pride" in the community as a whole.

# # #

A NOTE ON THE COVER PAINTING

Professor ROBERT SCHELLIN was elected Chairman of the Department of Art and Art Education at the University of Wisconsin-Milwaukee this spring. He comes to his position of leadership in Wisconsin art from a Wisconsin academic background and with a record of accomplishment which is more varied than is usual among artists.

In the middle thirties he joined many young American artists of his generation in producing works for the Federal Works of Art Project. Later, he taught for several years in the public schools of Montclair, New Jersey, and one year in the Madison, Wisconsin schools, from which post he returned to teach at his Alma Mater. He holds the M.S. degree from the University of Wisconsin. Professor Schellin's first recognition in art was for his paintings. He has exhibited and won awards regionally and nationally. Our cover this month is a drawing done on the Maine Coast during family vacations when he was teaching in New Jersey.

In more recent years, both his teaching and his own work have been largely in Ceramics and it has been in that field of work that he has exhibited most widely in the last decade.--Frederick M.Logan

MILWAUKEE SECTION OF THE AMERICAN CHEMICAL SOCIETY CELEBRATES ITS GOLDEN JUBILEE

By Fred E. Ebel, Publicity Chairman
Milwaukee Section, ACS

It was the dogged persistence of a man in search of twenty chemists that made possible the modest beginning of the American Chemical Society's Milwaukee Section. The man was John H. Linton, an enterprising chemist then in charge of the Vilter Manufacturing Company's laboratory. The year was 1908.

The twenty chemists' names were required for a charter which was granted on November 5, 1908. Over 100 attended the first meeting to hear talks by Professor C. F. Burgess of the University of Wisconsin, and W. D. Richardson, chairman of the Chicago Section. The place was the Plankinton House, and the time - January 14, 1909.

The first chairman was Martin M. Rock of the Smith Steel Casting Company, followed by John Thomas of the Thomas Furnace Company. Dr. Hugo W. Rohde who is Honorary Chairman of the Section for 1958 and the only 50-year member became the third chairman in 1911.

The ambitious young Section invited the National Society to hold its 47th meeting in Milwaukee. The invitation was accepted and during March 25-28, 1913, Marquette University lecture rooms were used to present 143 papers to 375 registered members and 50 guests. A highlight was a talk by Professor Julius Stieglitz who addressed some 800 combined members and Milwaukee citizens on the subject of combustion. Later, the Section was to be host to two more National Society conventions.

Dr. John Surak & Hon. Chm.Rohde

The second of these national meetings was held during September 10-14, 1923 with T.Harry Cochran serving as Convention Manager. Held at the Pfister Hotel, registration including guests was now almost 1000. The third convention hosted by the Section was held in September 1938 with an impressive 2871 registrations. Destined for pleasant reminiscing was

a "Gemuetlicher Abend" arranged by Dr. J. V. Stenile and attended by 2500.

With increasing activity, the need for a local communication medium resulted in three trial issues of the Amalgamator, starting September 1945. Soon after the birth of the publication (spearheaded by Rolland Osborn), application was made to the State of Wisconsin for a charter as a corporation. On March 17, 1946 the Section held its first meeting as a corporation.

Earlier in the same year a local section employment clearing house was initiated, headed by Leo Hamacher, who continues to hold this post. Also in 1946 a speakers bureau was organized, and in 1947 the growth of Milwaukee industries and the number of chemists residing in Milwaukee became sufficiently great to entitle the local section with four councilors.

Cognizant of the educational needs of chemists at the high school level, a resolution to local high schools stated that this society believed that the teaching of the physical sciences could not properly be done without laboratory courses (which were being eliminated).

With membership exceeding 400 in May 1949, final agreement was reached between the National Society and the local committee relative to by-laws satisfactory to both parties.

In May 1951 the Section inaugurated an annual conference based on a single scientific theme. This conference was titled "A Review on Instrumentation." That year was also the Section's first participation in the Junior Achievement Activity.

The year 1951 marked the 75th year of the National Society. The Diamond Jubilee was celebrated by the Section with a talk by President Elect E. C. Britton. The 121st National Convention of the Society was held at Milwaukee during 1952 with the new Arena available for 3006 registered members.

A joint meeting with Milwaukee vocational and adult schools on the subject "Chemistry as a Vocation" was held in 1953 and another in 1954 with the Management Center College of Business Administration of Marquette University on "The Chemist as the Leader and as an Executive."

During 1956, the Section greatly accelerated its public relations efforts, employing the media of press, radio, and television. A "You and Your Milwaukee Chemist" show was inaugurated over WTMJ-TV. To date some 30 local chemists have appeared at various times on TV shows to discuss subjects ranging from paint to the chemistry of mental disease. Enhanced was public recognition and increased understanding of the meaning and importance of chemical progress.

# # #

SOME FACTORS IN WISCONSIN'S RISING MILK PRODUCTION PER COW*

By Walter H. Ebling
Agricultural Statistician, USDA
and UW College of Agriculture

American agriculture has changed greatly in recent time, particularly the past two decades. More production by fewer people on fewer but larger farms has become the pattern. ... In dairying we have a similar pattern, more milk production from fewer cows in fewer but larger herds. Various causes are involved in this trend and some of these can be shown from data in Wisconsin records.

Milk cow numbers and heifers two years old and over kept for milk cows on Wisconsin farms reached an all-time high point in 1946 when the state had 2,585,000 head. Since then the number has fluctuated from year to year but it is now at a somewhat lower level. The total volume of milk production on the other hand is a new high point. In Wisconsin new records of production have been made annually since 1950. The larger volume of milk from fewer cows on farms is the result of the constant rise of milk production per cow, the yearly average in Wisconsin for 1957 being 7,640 pounds. In 1940 just before the war this average production was 5,850 so that since then we have an increase in milk production per cow for Wisconsin by 30 percent.

In the Census of 1920 over 171,000 Wisconsin farms reported milk cows whereas in the 1954 Census less than 129,000 farms reported them. This is a decline of one-fourth in the number of farms reporting milk cows. As recently as 1940, however, the Census shows over 167,000 Wisconsin farms reporting milk cows. Just as the number of farms has declined more rapidly since World War II so the number of herds has shown a big decline since that time. As the herds have become fewer in number, they have become larger in size.

When one looks at the average number of cows per farm as reported in Wisconsin by the Census, it is noted that from 1910 through 1930 they tended to average from 9 to 11 cows. The trend toward bigger herds was slow at first, but

* - Presented at Academy's 88th Annual Meeting, Whitewater, May 3, 1958 (slightly abridged)

recently it has been more rapid. Now the herds in this state average about 20 cows and it appears that at present the herds are increasing in size by about one cow per year. It is quite likely that herds may continue to grow in size until they average perhaps 35 or 40 cows. When we realize that in 1950 the average was still only 14.5 cows, it would not be surprising if the average herd size in the state exceeded 30 cows by 1970.

Heavier feeding of improved rations to our dairy cows in all months of the year is another cause of higher milk production per cow. Feeding of grain and concentrates to milk cows has been especially increased during the summer months when cows are on pasture. This increase in grain feeding in all months but especially during the pasture season is an important factor in leveling out milk production during the year as well as increasing the production per cow.

Another development is the change in the pattern of cow freshenings. For a long time the peak of cow freshening was in the spring of the year, the high month being March. For many years this pattern changed very little, but in the last few years it has changed greatly. Now more cows freshen in the fall than in the spring months with October and November usually the high months.

Since 1953 the percentage of cows freshening in the fall has risen sharply and the four highest months of the year are September, October, November, and December which last year accounted for over 45 percent of the cows freshening during the entire year on the farms of Wisconsin Dairy Reporters, and this trend seems to be continuing. Fall freshening cows usually have a higher annual milk production than cows that freshen in the other seasons. They milk heavily during the winter feeding season and then benefit by the early pasture season. They milk least during the late summer and early autumn when pastures provide less feed and milk output is lower.

The long-time trend through the use of improved sires which has been helped by artificial insemination is another factor. Also, artificial insemination has played a part in the shift from spring to fall freshening. There is a trend, as well, toward keeping more Holstein cows and less of most of the other dairy breeds. Since the Holstein cattle are larger animals with relatively higher average milk production, this, too, has contributed to the higher production per cow and the increased total output. In a survey made in 1952 it was reported that 63.5 percent of the cows in Wisconsin dairy herds were of Holstein breeding. Guernseys were second with 26 percent of the total and all others a little over 10 percent. About 20 years

earlier several similar surveys showed Holsteins accounting for about 53 percent of the total. With the rapid changes now going on in the dairy industry the shift to more Holstein cows is probably being speeded up. Larger herds, artificial insemination, the emphasis on nonfat solids in milk rather than butterfat, as well as Grade A markets, all can influence the trend toward more cows of Holstein breeding. While no breed survey has been made in the state since 1952, it seems safe to conclude that now about two-thirds of our dairy cows are Holsteins compared with perhaps one-half in the 1920's.

The fact that herds are now larger and fewer in number, increases the importance of some of the other factors. With modern requirements for dairy equipment the owner of a small herd is in a position of not being able to afford the expensive items needed. Just as larger farms are required to justify the high cost machinery we now use, so larger dairy herds are needed to finance bulk milk equipment and other costly items needed in a modern dairy.

Larger herds usually are able to provide better herd management, feeding, housing, water supply, cow testing and other items than is the case in most small herds and this in itself is a factor in increasing efficiency and higher milk production per cow. Hence, the increasing herd size itself is a factor in increasing the annual average production per cow.

# # #

INFORMATION PLEASE! It was inevitable that the question would be asked, "Where can a person send stones believed to be Wisconsin diamonds in order to have them checked?" (See article on "Wisconsin Diamonds" by Professor Arthur A. Vierthaler in Spring 1958 Academy Review.)
Answer: Both Professor Vierthaler, Department of Art and Art Education (Education Bldg.) and State Geologist George F. Hanson (115 Science Hall), University of Wisconsin, Madison 6, will give you this service, and also return your stones to you promptly, postpaid. Most frequently quartz crystals and chips are mistaken for diamonds, but this should not deter anyone from checking his "finds." However, it is requested that all specimens be from Wisconsin and the county and nearest city or village be indicated so that the general locality from which the specimen comes can be recorded. Information will not be furnished on any specimens lacking such data.

# # #

CONSERVATION EDUCATION vs. FALSE NOTIONS

By Robert A. McCabe
UW Dept. of Forestry and Wildlife Management

A little knowledge is said to be dangerous. False notions are in effect "too little knowledge"; they are also dangerous--dangerous because they can become ingrained into our social thinking and eventually require a trained eye to detect, and skillfully planned education to correct. Failure to recognize and correct a false notion in the field of wildlife conservation jeopardizes an important segment of our natural heritage.

I have attempted, somewhat arbitrarily, to divide the false notions into general categories. The first group concerns methodology in conservation teaching. Here in Wisconsin no better example is available to illustrate this point than the relationship of white-tailed deer to our forests. How much beyond a physical description can be taught to a class of high school conservationists eager to learn about deer, without a knowledge of where the deer live, and why they inhabit that area? After the physical description each succeeding question about deer asks two others. Do the plants used for shelter or food influence deer mobility and habitation? Are all food plants of equal palatability, and does each have the same nutritional value? Could the soil, temperature and precipitation affect the quantity and quality of these plants? Does the origin of the soil itself influence the plants upon which deer depend for food and shelter? Is the behavior of deer in any way affected by the above aspects of their environment? These questions are but a small part of the investigation that must precede and be a part of the entire picture of the ecology of the white-tailed deer.

False notion number one is: that wildlife conservation can be taught without an understanding of the word ecology and all that it implies. Specifically it means the study of an organism in relationship to its environment. It implies that we know the environment of an organism about which we are teaching as well as the organism itself, and more particularly how each is affected by the other. The point we must constantly keep in mind is that no plant or animal in nature can be completely understood apart from the environment in which it lives.

Closely allied is the second false notion in this group: namely, that one can teach wildlife conservation without the aid of research findings. The cookbook days for teaching wildlife conservation died in the mid-1930's with the advent of the Journal of Wildlife Management, and were buried forever with the tidal wave of scientific investigation initiated by the Pittman-Robertson Act of 1937 which provided funds for scientific investigation in the field of wildlife conservation. In Wisconsin the Conservation Department employs about 100 persons in the game branch alone who are doing some technical or semi-technical job, each gathering, assimilating or interpreting information in an effort to understand our wildlife resource so that it may be properly used, and thus conserved to be used again.

We once thought that all the greenery of a forest in July meant that lumber was being produced and that the deer herd was virtually in a bed of clover. Research, however, tells us that most of the timber-producing trees are also deer foods and that the forest green may be made up of non-palatable, noncommercial

trees and is therefore not to be construed as future interest on timber or wildlife.

The entire field of conservation is growing, and unless we keep abreast of current research findings from which growth and development stem, our teaching efforts will be as useful as last year's calendar.

The third misconception is that an insight into wildlife conservation and its esthetic values comes from a textbook. At best, texts are crude charts telling one which way to go and what one is apt to see. Each concept, each idea, law, rule or example is only a porthole from which one's own field experiences may be viewed and evaluated. Without such experiences one has the portholes but no view. A conservation teacher must live his subject to make it first real to himself, and then by skillful interpretation instill into the student not only the facts necessary to understand wildlife conservation, but a willingness to go afield as well. The textbook is only the catalyst which crystallizes field experience into a set of deep-seated esthetic values regarding wildlife specifically and conservation as a whole.

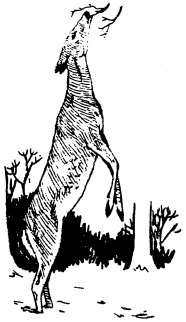
It is important to know that deer may feed on 12 species of plants in a given order of preference; that the gestation period is 210 days; and that the antlers differ physically and physiologically from those of cattle. It is equally important, however, that deer be considered as just one organism in the many that make up the complicated but orderly forest community--also that the sight of a frisking fawn or the ever-alert doe can provide as much recreation as a view of a 12-point buck over the sights of a 30-06.

Gunpowder hunting in America is probably as old as the day the Pilgrims set a buckled shoe on Plymouth Rock. False notions regarding this one-time vital activity, now a sport, are just about as old. Two such notions which still prevail and which only education can correct are:

First, that hunting is always the limiting factor on wildlife numbers. In some few and special cases, hunting not only limited the population, but wiped it out. Many gun hunters of today still consider hunting as the prime limiting factor despite the fact that they themselves are, by choice, cogs in the machinery of exploitation.

Fortunately research in the field of wildlife conservation shows that where adequate habitat is available the law of diminishing returns sets in on the hunter and he abandons the chase before the wildlife crop is overexploited; that is, under our present-day restrictions. Unlimited hunting seasons and limitless bags could, and likely would, seriously reduce some species.

In the early 1940's Aldo Leopold urged an any-deer season in Wisconsin because of the wretched winter condition of overpopulated yarding areas. With much trepidation, such a law was passed, and in 1943 a season on antlerless deer was allowed. The kill jumped from 45,000 in 1942 to 128,000 in 1943. I need only say that the furor that followed was as wild as it was in error. After the tumult died



away and rationality replaced emotion, it was found that the deer herd was far from wiped out and, in fact, was still too large. Six years later Wisconsin embarked on a series of three consecutive years in which 457,000 deer were killed under one antlerless and two any-deer seasons. No informed person today claims that the deer are gone from our forests.

Under our present system of restrictions the role of the gun in virtually all cases is relegated to a minor place in controlling wildlife numbers. Habitat alteration and destruction are by far the more potent factors.

In hunting also the notion that the female of the game species should always be protected is likewise false. Sir Walter Raleigh and Emily Post have performed a much-needed service in regulating patterns of social conduct of human society in our land. To transpose this same thinking to wild animals serves no function except to mask true biological relationships. We delude and confuse students of all ages when we seriously give to lower animals the attributes of humans.

If we can keep our deer herds and the forests of our state in balance by hunting only buck deer, then I say "so be it." If periodically both sexes must be taken to reduce the herd in order to maintain this balance, then I am deaf to the plea "Save the mother deer and Bambi." A white pine whose limbs have been browsed back so that it looks like the business end of an old broom does not look more attractive, nor will its recovery be more swift because it was browsed by a female deer.

Probably the most prevalent and widely used false notion is that animals, excepting man, which eat flesh are revolting, vicious, sneaky, and brutal. What popular reference to the wolf shows that he must eat meat or die; that he has been equipped by milleniums of time essentially to kill and to eat other animals; that his is an important function in creating biological balance among wild creatures? The place of the wolf or the fox in nature was not recently created to bedevil the rancher or chicken farmer. These carnivores have an evolution no less spectacular than that of man. The wild members of the dog family have power of bone and muscle; possess swiftness and grace afoot; are clever and resourceful; and if we were to study them closely we might even say they appear jolly, affectionate, and honorable.

The death in the wild of a fawn by the jaws of a wolf or bear is a natural, normal occurrence. If there are few deer, the chances of discovery and death of a fawn by wolves, for example, are remote. If there are too many deer the chances are great. Flesh-eating mammals or birds perish if their numbers exceed the food supply. Plant-eating animals like deer, mice, gophers or rabbits when protected from predators reproduce rapidly and soon outgrow the available food supply and become their own worse enemies via starvation.

A deer wild and free that is stalked and killed by a wolf or puma wild and free through cunning and strength should be less appalling than a deer that falls to a gadget-bedecked hunter equipped with high-power rifle, telescopic sights, hand warmer, Korean boots, a flask of anti-freeze, and a guide. What is more, the hunter needs his victim less.

To grant the desirable human attributes to the plant-eating animals and the degrading attributes to the flesh-eaters is the most ridiculous of false notions. Unless it is corrected, our teaching in natural history will be less than no education at all.

In the field of medicine or atomic physics false notions may be held by a limited few, but as a rule no individual considers himself a lay authority nor do we have militant groups harassing the professional or technical worker. Records are few of persons bypassing medical men to operate on themselves. I know of no do-it-yourself atomic bomb project.

In the field of wildlife conservation many persons who own a gun or a piece of rural property or subscribe to a sporting magazine consider themselves authorities on some phase of conservation. If such individuals or groups harbor no false notions, progress by professional and lay conservationists is accelerated. If they do, the conservation effort marks time and wastes money and energy.

"False notions" in those fields concerned with national prestige or personal well-being are soon corrected. The land and its wildlife have not and likely could not command speedy correction of false notions. The pleading of a misused or misunderstood natural resource is perceived by the eye, not the ear. Those who possess acumen for the audibility of wildlife and land know that the pleading is loud and often mournful. Some have been the death gasps of a species or a biota.

We can avoid false notions best if our educators meet these notions head-on, bowl them over, and expose them for what they are. There is no group better equipped than our school teachers of today to start early in the scholastic scale to train and guide our conservationists of tomorrow.

S. M. BABCOCK and his Milk Testing Machine

The 1899 State Legislature voted to present a medal to Prof. Babcock, which stated: "Recognizing the great value to the people of this state and to the whole world of the inventions and discoveries of Professor Stephen Moulton Babcock of the University of Wisconsin, and his unselfish dedication of these inventions to the public service, the State of Wisconsin presents to Professor Babcock this medal."

The Academy salutes the Agricultural Experiment Station of the University of Wisconsin on its 75th Anniversary. Implemented in the fall of 1880, the program of experimental work grew beyond all expectations under two Deans of the College of Agriculture who were interested in research - W. H. HENRY (1880-1907) and H. L. RUSSELL (1907-1930). Both men were Academy members.

The Anniversary Committee, headed by Academy member WILLIAM B. SARLES, announced a series of three lectures, the first of which was presented by UW President CONRAD A. ELVEHJEM at a banquet for faculty members and guests on October 1. Speaking on "The Development and Use of Basic and Applied Research in Wisconsin," President Elvehjem recounted some of the long searches and discoveries made at Wisconsin. Results of the experiments greatly benefited the farmers (for whom the work originally was begun) but many other groups likewise benefited "from our increased knowledge in nutrition, whether we deal with trace mineral elements, vitamins, or more recently antibiotics." He concluded that such work requires "individuals who are motivated by the hope of finding new knowledge--the men who have imagination and those who are given the freedom to take whatever path seems most logical at the time of decision. Secondly, we need administrators who have faith in these research workers and give their effort to providing the freedom and the proper environment for experimental work. Fortunately, the Wisconsin Agricultural Experiment Station has had the privilege of great leaders in both areas."

S. M. BABCOCK, one of the professors at the station, in 1890 announced the invention of a simple, accurate device to determine the butterfat content of milk. E. V. McCOLLUM, who at the request of Academy Member HELEN T. PARSONS has furnished the short memoir on page 162 was quoted by President Elvehjem in describing the establishment of the first rat colony:

"When I told Dr. Babcock about my plan, he responded enthusiastically, and without delay took me to the office of Dean H. L. Russell to lay the project before him. When I had related my thoughts about the merits of the problem and of using rats as experimental animals, he dismissed the suggestions as unacceptable for two reasons: in an experiment station we should devote our efforts to the study of farm animals; the rat was a pest, and if it were to get abroad that we were using federal and state funds for feeding rats we should be subjected to severe criticism. But Babcock was undaunted by the Dean's adverse decision. He told (E. B.) Hart that he wanted me to have permission to carry out my plan, and on his insistence my chief gave me permission to do so. So far as I know, nothing was said about the matter to the Dean and the undertaking was not made a formal project, a procedure which I am sure is occasionally made good use of today." # # #

STEPHEN MOULTON BABCOCK

By Elmer V. McCollum
Johns Hopkins University, Baltimore

When I began work at the Wisconsin Agricultural Experiment Station in 1907 Dr. Babcock had been retired one year. His sight was so impaired that reading was difficult for him, and almost every day he came to my laboratory and talked with me while I worked. He told me of the history of different experiment stations and of the men who worked in them, and also his thoughts on almost every subject of interest to him. Our close association continued during the 10 years of my work there. He possessed broad knowledge and in addition was a man of wisdom such as I have rarely seen in another. In return I gave him an account of the investigations in biochemistry and physiology. He had never read widely in these subjects, while I had acquired a comprehensive knowledge of what had appeared in scientific journals in both disciplines. I prized highly this association with a mature and experienced man of broad contacts and with intellectual endowment far above that of men who worked in his field. It was one of the great experiences of my life.

As teacher of students, investigator in several lines, but especially his invention of a simple method for estimating in milk, and through contacts with farmers he acquired a wide reputation as a superior and trustworthy man. I knew of occasions when President Van Hise, fearing that the farmer legislature would cut the budget he submitted to it, took Dr. Babcock to the Capitol and had him tell the farmers not to cut the budget. For him, many voted the funds even though they thought many of the subjects taught in the University were of little value and represented waste of money.

Dr. Babcock thought more clearly and more persistently about problems than any other man in the College of Agriculture at that period. He planned experiments with unusual insight. His interest in farm problems was all-absorbing. He had strong enthusiasms and convictions. With him, the love of wisdom was more satisfying than the pronouncement of accepted truths. In advanced age his knowledge did not become stationary. Gentle and modest in disposition, he led an active but contemplative and philosophic life of outstanding usefulness. A man of integrity of thought, firmness of purpose, high ideals and sustained industry--we must not permit his laurels to dry.

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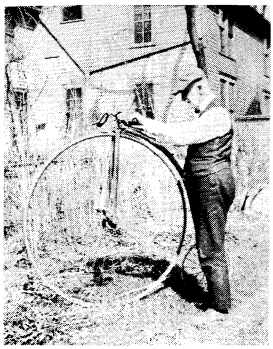


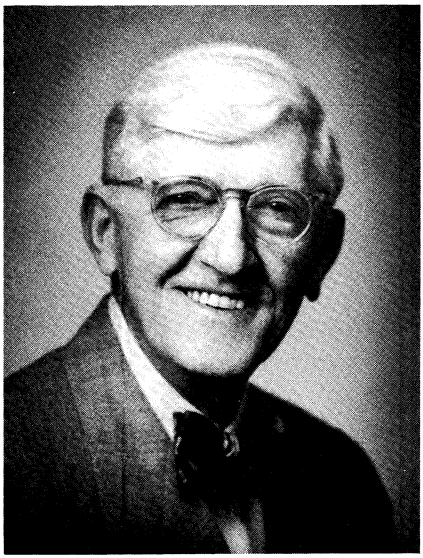
PROFESSOR BABCOCK AND TWO OF HIS HOBBIES

In 1921 Miss Helen T. Parsons persuaded Prof. Babcock to pose with the bicycle which he formerly rode for years in the Bicycle Club of Madison. In the background are spent stalks of the original Babcock hollyhocks in his home garden. Seeds from these plants were planted in many another garden, some being taken to India and other foreign countries by students who had come to Wisconsin.

# # #

NEW LIFE MEMBERS

E. J. B. SCHUBRING



SELMA L. SCHUBRING

EDWARD JOHN BERNHARD SCHUBRING was born on a farm in Sauk County, Wisconsin, on November 17, 1878. He was awarded the BL degree in 1901 at the University of Wisconsin and LLB in 1903; legal fraternity, Phi Delta Phi. In 1903-04 he was a law clerk in the office of Burr W. Jones, Madison, and formed a partnership with him under the firm name of Jones & Schubring, July 1, 1904, for the practice of law in Madison. He was principal associate of Burr W. Jones in preparation of 2nd edition of "Jones on Evidence," published in 1908. Partnership was dissolved in 1921 when Mr. Jones accepted appointment as Justice of Supreme Court of Wisconsin. In 1923 a partnership with William Ryan and Arnold R. Petersen under firm name of Schubring, Ryan & Peterson was formed, which partnership is still in the practice of law in Madison, under the firm name of Schubring, Ryan, Petersen & Sutherland.

Mr. Schubring was one of the organizers of Southern Wisconsin Power Co. and Wisconsin River Power Co., which, with merged companies, is now Wisconsin Power and Light Company. He was also one of the organizers of Associated Telephone Utilities Company, now known as General Telephone Corporation, second largest telephone company in the United States. He served as trial attorney for Miami Conservancy District of Dayton, Ohio, which, after the great flood of the Miami River in 1913, organized and built one of the largest and most successful flood prevention works in this country. For more than 30 years he was President of Madison General Hospital Association of Madison.

Mr. Schubring is a Life member of American Association for the Advancement of Science; the Wisconsin Academy; Wisconsin Historical Society; Museum of Natural History, New York; National

Parks Association; Redwood League of America; National Geographic Society and others, and a Fellow of the American Bar Association.

SELMA LANGENHAN SCHUBRING, wife of E. J. B. Schubring, was born in Ableman, Wisconsin, on March 14, 1881. She received B.A., M.A., and Ph.D. degrees from the University of Wisconsin. In her junior year she was elected to Phi Beta Kappa, and is a member of Sigma Xi, Sigma Delta Epsilon, American Association for the Advancement of Science, a Fellow of the American Geographical Society, and a Life member of the Wisconsin Academy. As vice-president of the Madison branch of the American Association of University Women, she was one of the founders of the College Club. She was also one of the founders of the Dane County League of Women Voters. In 1957 she was honored by the American Red Cross for 20 years of volunteer service as a staff assistant, Federal Gray Lady, and braille transcriber. Formerly she was on the board of directors of the Women's Western Golf Association and women's golf champion of Black Hawk and Maple Bluff Country Clubs. A travelling inter-club golf trophy is named in her honor.

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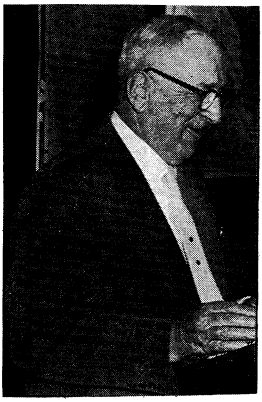


WARREN C. FISCHER — GEOGRAPHER

A Retirement Profile

WARREN C. FISCHER became professor emeritus of geography at Wisconsin State College, Whitewater, in July 1958. For just over 40 years he had taught in Wisconsin schools, beginning in a rural school in 1910 and coming to Whitewater in 1922. He received his B.A. and M.A. in geography from the University of Wisconsin.

In 1925 he introduced field trips to the state college system, the itinerary including Yellowstone park, Colorado Springs, Salt Lake City and Denver. Later they were more extensive, some also going east. He has led over 20 trips, sometimes two in a summer. Academy members had a chance to observe his prowess during their Annual meeting this past spring when he conducted the Kettle Moraine geological field trip attended by over 100. At one point when lecturing via loud speaker to the three busloads of attentive listeners, his audience was augmented by a herd of curious Wisconsin dairy cattle, standing in a line on the hilltop.

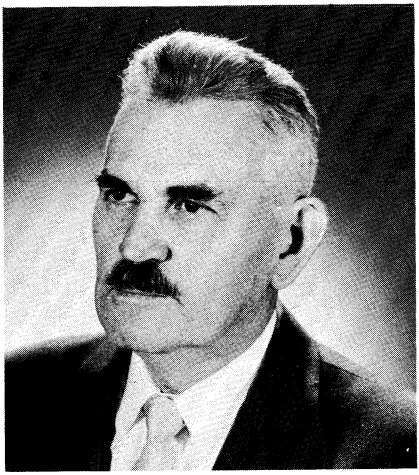
Widely-traveled throughout the world, his classes were never routine, and his personal observations were a basis for instruction sometimes more valuable than the textbook. He was named to the athletic committee at Whitewater in 1925 and served for years, also providing the college with most of its homecoming movies, at first as a hobby but lately at their request.

At a faculty banquet at the close of the summer session, Professor Fischer was honored by his friends and colleagues at the college, and presented with a transistor radio.

# # #

WILL C. McKERN — ANTHROPOLOGIST

A Retirement Profile



On July 3, 1958, when he closed his desk for the last time at the Milwaukee Public Museum, W. C. McKERN terminated a career of 15 years as its Director. He came there in 1925 as Assistant Curator of Anthropology, having received his B.A. degree in that subject from the University of California and teaching experience at the University of Washington. He did ethnological field work among the Patwin Indians of California, archeological work in Colorado, and spent a year studying the Tongan Islanders in the South Pacific. His personal assets are a likable personality and warm, friendly manner.

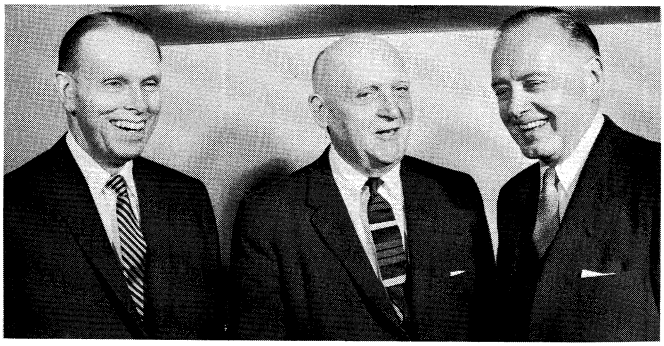
At the Museum Mac's interests in field work took the form of archeological investigations of Wisconsin. His summer digs and the numerous articles and monographs resulting from them were important contributions to the knowledge of our prehistoric Indians, and attracted national recognition. Among professional archeologists he is perhaps best known for his classificatory system of archeological materials which became known as the McKern Taxonomic System. He was one of the organizers of the Society for American Archeology, later one of its presidents, and served as first editor of the Society's publication, American Antiquity. Locally he was a staunch supporter of The Wisconsin Archeological Society, serving in many of its offices including that of president.

During the 1930's and early '40's, he rose to associate curatorship, full curatorship, and with the death of Dr. Ira Edwards in 1943, he assumed the post of Museum Director. As Director of the fifth largest natural history museum in the nation, Mac's activities necessarily shifted from anthropology to administration and museology. His impact was considerable in the latter field, for he encouraged new exhibit ideas. During his regime the role of the Art Department in case exhibiting became extremely important.

Mac organized a Museum membership called Friends of the Museum and established a popular quarterly publication designed for its members, now known as Lore. Also developing in his mind was the dream of a new Museum building to more adequately and efficiently house the collections and implement the program and services.

Joining the Wisconsin Academy in 1939, he was elected to its presidency in 1950, and has since been active on the Council. In 1946 he served as president of the Midwest Museums Conference and has been on the boards of the Milwaukee Art Institute, the State Historical Society, and others. In 1956 the honorary degree of Doctor of Science was conferred upon him by Marquette University.
--Adapted from article in Lore, Fall 1958, by Robt. Ritzenthaler.

THE INAUGURATION OF PRESIDENT CONRAD A. ELVEHJEM



Formally inaugurated on October 9, 1958, CONRAD A. ELVEHJEM became the 13th President of the University of Wisconsin. He is shown here (left) with Emeritus President E. B. FRED and President GRAYSON KIRK of Columbia University, who spoke at the inaugural luncheon. In pledging his personal attention to "maintaining balance in this institution," President Elvehjem said: "First, I believe, we must reach the general understanding that there is a significant and beneficial relationship among our instruction, research, and public service functions; that there is a community of interests among the natural sciences, social sciences, and humanities; that training for the professions and liberal education are strongly linked; that the interrelationships of undergraduate and graduate teaching facilitate and strengthen both."

Photos by Gerhard Schulz

With Governor VERNON W. THOMSON (left) and the Rev. Dr. ALFRED W. SWAN smiling approval, Regent President WILBUR N. RENK presents to the new President of the University of Wisconsin the book of minutes showing official Board of Regents action. Dr. Swan presented the invocation at the formal ceremonies: "Eternal Light, who dost from heaven descend to illumine every waiting and receptive mind and heart, rest upon us in this place and hour, to dispel our darkness and to open the gates of day. For all the heritage of this commonwealth and for the mighty fountain of learning in this institution in which we foregather we humbly thank thee, and would pray that like knowledge from the universal tree may spread from coast to coast and unto the uttermost parts of the earth. Wherefore now we invoke thy blessing upon him whom we are about to inaugurate as President of the University of Wisconsin. Gift of our soil and culture, product so much of the institution which he is now called upon to lead, pour out thy spirit of strength and knowledge and wisdom upon him. Give him breadth of vision, skill in deployment, support from his fellow teachers, the affection of the multitude of students that resort here, and the regard of the people of the state, of, by and for whom he serves. Deliver this seat of learning from the great confusions of division, preserving it a true university, fortified for every good fight, disciplined with a sense of service, and glad and strong in its contributions to the common life. So may thy will be done this day among us, and thy kingdom come apace, through the grace of the Son of Man, to the glory of thy Holy Name. Amen."

DOMAIN OF LETTERS

Academy member MARIAN PAUST of Richland Center contributes the philosophy of "The Promises."

Called to India a year ago by the U. S. State Department as an educational specialist, Dean F. CHANDLER YOUNG, of the University of Wisconsin, advised particularly with native leaders. His attitude of rich responsiveness evidently won him a peculiar degree of appreciation; special experiences beyond the ordinary were consequent. In the abridgment of his recent paper given at the 88th Annual Meeting of the Wisconsin Academy at Whitewater, Dean Young, despite modest disclaimers, has presented (in the words he himself quotes from India) " a treat for the intellect and at the same time an intensive thing for the heart."

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THE PROMISES

To plant was habit, and the seasonal need
Which rose in him was eased now by his hands;
For winter winds no longer would stampede
Lean lonely herds of trees across his lands.
Along his fence there foamed a purple brook
Of violets that rippled in the sun,--
Proud eyes saw furrows but his heart was shook
By all the leafing April had begun.
His willing hands had linked him to the earth;
His body bent to discipline of sod;
But deep within he knew his fields' true worth
Depended on the promises of God--
That He would cultivate with equal care
Each weed, each flower, each grain seed planted there.

---Marian Paust

A MUSHARA IN INDIA

By Dean F. Chandler Young
UW College of Letters & Science

The Mushara in India is a gathering of poets. Poets come together to hear each other recite and to applaud and criticize each other's poetry. The Mushara grows out of an appreciation and understanding of the significance of the liberal arts. When my friends in India asked me if I would like to attend one of these affairs, I had to admit that I had never heard of a Mushara (and I might say that, as yet, I have been unable to find a reference to it in our University library).

The evening of my first Mushara I was escorted through a back door up onto a stage of a rather large auditorium. The stage was crowded with poets. The audience numbered over 500, being undergraduate men of the university. Most of the audience was sitting cross-legged on the floor and many were standing in the back and on the sides. A few women students, not wanting to be seen, listened behind curtains. One by one, young poets and old poets, mostly those who were educated but some who were uneducated, each dressed in a different degree of formality, recited original Urdu poetry. A friend of mine whispered interpretations of the poetry being read into my ear while a student passed me pahn leaves and betal nut for chewing. This affair lasted a good four hours and the student audience seemed as interested at the end as at the beginning. I wondered to myself how many Wisconsin students would show that much enthusiasm for poetry. Although I had difficulty understanding the sense of the poems, the chant or sing-song recitation was indicative of the mood. The audience participation was especially interesting. While the poet was reciting his poem, the audience expressed its approval or disapproval. Occasionally they laughed in mockery; at other times they shouted in approval. Sometimes they demanded that the poet repeat certain lines that they liked very much.

Several weeks after this introduction to the Mushara, Professor Ahmed, Chairman of the Patna University Department of Urdu, invited me to a special Mushara that he was putting on for my benefit. He had arranged a special tea and had invited ten of the leading poets of Patna, both university and non-university people. The men guests were formally dressed with long, high buttoned collar black coats. The few women wore colorful saris. After a pleasant high tea of fruit, cake, nuts, and many sweets, we gathered about my tape recorder. Professor Ahmed presided. He made some introductory remarks in regard to the Mushara, introduced each poet and then, after the poet had recited, gave the sense of the poem in English.

According to Professor Ahmed, there is a long tradition of these Musharas. They began with the great moguls of the 15th and 16th centuries. The last Mogul emperor used to hold Musharas in his palace, and many of the outstanding poets of the land took part. These Musharas used to be held all over the country, not only in towns, but in small towns as well as in some cultured villages. The important centers of Urdu language and literature in India today are Delhi, Lucknow, Patna, and Hyderabad. There are some centers in Pakistan. A typical Mushara is a very entertaining thing. Poets sit down together. They chew betal nut and share a great Hookah pipe. Nowadays the poet usually comes in front of the group but in olden times the poet used to move among the other poets. The audience is typically attentive, appreciative, and applauds hurriedly and briskly and fervently. They

shout va, va, va, meaning fine, fine, fine! They demand that the poet repeat lines which are particularly appealing. Sometimes one of the audience repeats the poet's lines or sums up the meaning or feeling of the poem with enthusiasm.

The first poem in this special Mushara was a love lyric with words chosen to give a rather strange musical effect. The poet recites his love experiences. He says that love is an eternal pang of the heart. Friends come and try to console the poet but the tears flow on and on.

The second poem Professor Ahmed found more difficult to translate for me. Each line tells of a great experience; but a series of experiences is presented in a disjointed manner, an approach that is designed to add strength to the feelings portrayed. For example, one line says: "Look to the tragedy of that person who is living in the flower garden but is killed. He is away from the sweetness and the fragrance of the flower. He tries to avoid difficulties and critical situations, but the situations creep up and embrace him."

Another poem may rightly be titled "The Tear." This is a deeply touching poem about an unhappy lover. The poet says that his eyes are brimming with tears, seething out of the heart, torn in love. The color of the tear will sprinkle color all over and perhaps create a fresh crimson. One member of the audience shouted out that he thought that the poet had put forward the word tear in ever so many shades.

Another poem illustrated a modern tendency to use simple words which are full of meaning. This poem is a combination of a very vivid realism and a certain idealism. The poet tells of a boatman who is rowing and rowing on to dangerous waves in the dark of the night with the waves coming up and up. The poet urges the boatman to row the boat quickly and earnestly onto the shore where perhaps there will be his beloved and perhaps idealism.

Another poet was introduced as a poet-philosopher with the reputation of also being a good story writer. His poem is a philosophical one. He tells of how he believes in the rapture of love, in the creative value of love, and how he denies rationalism. Rationalism cannot achieve much whether in love or in life. Rapture is the really grand force, the creative force both in love and life. The poem is not a treatise but rather philosophical ideas expressed in beautiful metaphor.

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(Dean Young brought back tape recordings to afford listeners "some idea of the effect of the Urdu language in poetry, the manner in which the poetry is recited, and audience reactions.")

# # #

SIGNIFICANT QUOTATION Dean Young, a specialist in counseling psychology, remarks on his interest in fields other than his own: "We of the Academy have experienced the excitement and high pitched curiosity of being an explorer on the frontier of knowledge. Each of us may be in a different part of this frontier, but having pushed far ahead in our own area, we like to see how far others in the party have gone and what they have found, what they are seeking, and how they are going about it. This sharing of scholarly inquiry with each other and with other people is, to me, the unique characteristic of this Academy."

# # #

JUNIOR ACADEMY NEWS

HISTORY OF SCIENCE FAIRS

CHARLES N. FREY, Academy member since 1922, has provided some interesting background on children's Science Fairs in the country. As former chairman, Board of Managers, and former director of the American Institute of the City of New York, he is familiar with the part played by that organization in the inauguration of the Fairs. From a short history prepared by the secretary of the Institute, Miss NATALIE PALMER, we quote the following:

"The Children's Science Fair is one of many activities of The American Institute of the City of New York. In 1928, the Institute proposed an experiment in the education of young people in science. It took the form of a Children's Fair and was included by the New York State Department of Agriculture in its approved list of county fairs. In this first Fair, as in later Fairs, the Institute sought and obtained the cooperation of the American Museum of Natural History and the School Nature League.

"The three institutions working together developed a plan whereby the boys and girls of New York City were invited to enter science projects in a competition for prizes. The exhibit was held in Education Hall of the American Museum of Natural History in October 1928. Opportunity for entry was given to both individuals and groups and to both schools and extra-school organizations.

"Under the effective guidance of Mrs. Marjorie C. Coit of the School Nature League, Mrs. Grace Fisher Ramsey of The American Museum of Natural History and Mr. L. W. Hutchins of The American Institute, the Children's Fair attracted wide attention. In 1929 it was found desirable to broaden the scope of science content. From a series of exhibit classes drawn purely from the biological sciences, the Fair now grew to a series which included all the science fields.

"Interest in the Fair continued to grow. Teachers brought their classes and spent hours in studying the displays. They came away inspired, and with practical suggestions for application to their own teaching problems. The third Fair, held in December 1930 saw a noticeable improvement in the quality of the exhibits. Teachers and pupils began to plan long in advance of the date of the Fair. At the close of the 1930 Fair, Mrs. Coit undertook to assemble a series of reports by teachers and pupils who had participated, which were published in a booklet entitled 'Projects in Science and Nature Study.'"

Mr. Frey adds: "After the Institute developed the school science fairs, it was found that the financial burden would be too great for the Institute. It sought support from the Westinghouse Corporation, and after several meetings between the President of Westinghouse and his associates, the officers of the American Institute and its Board of Directors, an arrangement was made for Westinghouse to finance the fairs. They were known originally as

Junior Science Fairs. Had it not been for the help of Westinghouse, the fairs would have been confined to the New York area."

JOHN W. THOMSON, chairman of the Junior Academy Committee in Wisconsin, comments: "While I was a schoolboy in New York City, I was hired at 25¢ an hour to help in the setting up of the fairs so I have a vivid picture of Mrs. Coit and Mrs. Ramsey, and the terrific job of getting ready the many, many exhibits which were entered. Mrs. Coit became ill and had to go for several years to Saranac Lake in New York, and at the time that she retired from the directorship of the fair, it was taken over by the American Institute."

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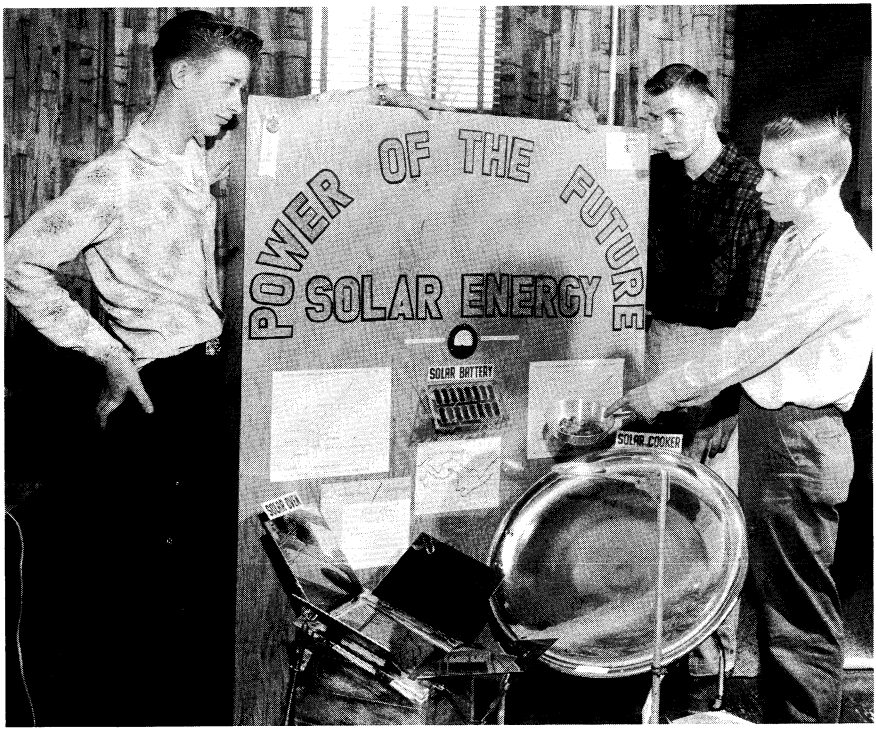

By James Schleis
Lincoln High School, Manitowoc

Introduction: I got interested in this experiment on solar energy when I came across a chapter of do-it-yourself projects in the Radio-TV Experimenter magazine. At first it was just a hobby, but after extensive research I decided to do more extensive experimenting with this fascinating new power.

Solar Battery: I built this battery from plans in Vol. 4 of Radio-TV Experimenter magazine. It contains selenium rectifiers which are connected in series to produce 6 volts of DC current. The battery cost from $40 to $45.

Solar Cooker: I designed this particular cooker myself, although the theory for the collection of heat by using a concave mirror was previously used in the development of a solar cooker to be used in India.

This cooker uses a commonly known snow coaster which I polished with special rouges. It is mounted on a "transporter" I designed myself. On tnis "transporter" is mounted a grill I also designed in order to be completely adjustable. The polished reflector is also made adjustable by an apparatus which is in back of the reflector. The cooker is mounted on casters which act as a turntable. I have melted solder, and set wood and paper ablaze.

Solar Oven: I completely designed and built this oven. I think the best way to describe the principle for the collection of heat is to say that it collects five times the amount of heat ordinarily generated by the sun. Instead of glass mirrors, I used four aluminum plates which I had chrome plated. The mirrors are completely adjustable by an apparatus which is similar to the one I designed for my solar cooker. There are 1½ inches in insulation around the sides and on the bottom of the oven to prevent heat loss. The insulation is made up of spun glass and asbestos tape which covers the outside of the oven. I achieved a 300° temperature inside this oven. Three hundred degrees is the temperature necessary to bake the "sunshine cookies" that you see inside the oven. I baked these cookies on March 23 in an outdoor temperature of 40°. I am sure I can achieve temperatures of 450 to 500°.

Conclusion: I would like to say that this experiment has proved to be a practical success and certainly is the power of the near future. Within the next decade you will see solar energy being used more and more. The devices I designed and built in this experiment are economical and very efficient, especially in tropic and parts of the temperate zones. Devices such as my oven and cooker could be used successfully on some camping trips, at some camps, and in some arid lands.

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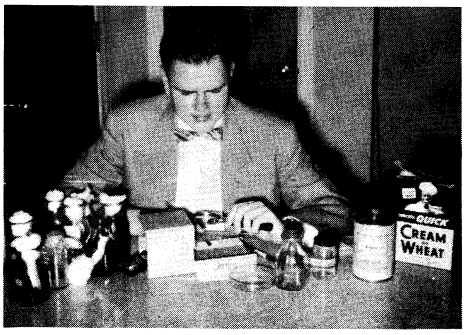
EXPERIMENTS WITH DROSOPHILA

By William Barney
Appleton Senior High School

About six months ago Mr. Scribner, my biology teacher, got me interested in genetics experiments with Drosophila. He sent to Carnegie Institute for three types of fruit flies, sepia, dumpy, and wild-type. Sepia has an eye which appears to be a dirty brown. Dumpy has short wings. Wild-type has the dominant red eye and long wings.



The flies are raised in milk bottles which have a layer of food at the bottom. My first food was the cornmeal medium made from cornmeal, molasses, agar, moldex, and water. Later I turned to the Cream of Wheat medium, made from Cream of Wheat, molasses, moldex, and water, because mold grew freely on the cornmeal medium.

Yeast is the major food of Drosophila so the medium is seeded with yeast. To control mold I developed what I think is an original idea.

The surface of the food in the bottles is painted with a combination of yeast and sugar water. This provides a protective coating that seems to prevent the growth of mold.

In Drosophila culture it is necessary to handle the flies many times. The most common operation is transfer. With a hard medium it is possible to shake the flies from one bottle to the other. With a softer medium the food would fall out of the bottle if shaken so it is necessary to get the flies to crawl from one bottle to another. Drosophila crawl upward and are attracted by light. By taking advantage of these facts, flies may be transferred without shaking.

To examine the flies it is necessary to etherize them. They are placed into an etherizer, which is just a milk bottle with a pad for ether, and ether is added. After about a minute the flies are unconscious and can be dumped out for sorting.

The flies are sorted on a piece of gray painted wood with an attached box and light bulb. The flies are pushed into position with a small paint brush. It is not necessary to use any magnification to determine the characteristics and sexes of the flies I have. The sex is determined by the shape of the abdomen and the number of stripes on the flies' bodies.

In my crosses I came out fairly close to the theoretical ratios. In the monohybrid cross I counted 378 flies, 283 showing the dominant traits, 95 showing recessive. This can be broken down into separate crosses involving sepia, dumpy, and wild-type (designated as se, dp, and +). In se x +: 100 +, 34 se; in dp x +: 183 +, 68 dp. My ratio of dominant to recessive for the total was 2.98:1; the theoretical is 3:1. In the dihybrid cross, se x dp, I counted a total of 134 flies with the following results: 74 +, 26 dp, 26 se, 8 dp se. My ratio, in the same order as above, was 9.3:3.3:3.3:1. The theoretical is 9:3:3:1.

I counted 1057 flies to determine the sex ratio. I had 497 males, 560 females, for a ratio of 1.13 males to 1 female. The ratio determined by others who have experimented with Drosophila is 1.17 to 1.

In the future I am going to experiment with the effects of radiation on mutations. I am now closely inbreeding my wild-type stock to bring out mutations carried as a recessive trait. After I have found what I consider to be a pure strain, I will expose flies to weak radiation for varying periods of their life and inbreed their offspring to determine the number of mutations. In the future Drosophila will be valuable in determining the effects of radioactive fallout.

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BUILDING A SPECTROSCOPE

By Gerald Miller
Brillion High School

Until quite recently, a spectroscope appeared to me as a dull, inanimate, puzzling instrument used just to look at light. I had never realized the pure enjoyment that can be gotten from the construction, and the working with a spectroscope. A whole new world of study and experimenting was unveiled before me. The opportunities offered by a spectroscope are unlimited. It showed me that the extent of science is only as far as the imagination of man can reach.

A few years ago I became interested in astronomy. Since then I have built a six-inch reflecting telescope which has brought me closer to the realm of the stars. Yet one's mind is not just satisfied with just seeing something. Since the beginning of time man's greatest question has always been, "Of what is it made?" This also haunted me and brought the idea of building a spectroscope. I am also interested in optics and chemistry, so a spectroscope fitted nicely into my schedule by not only acquainting me with the structure of the stars but also by teaching me something about chemistry and the use of optical instruments. After receiving some instructions and a general review on building a spectroscope, I set forth and two months later completed my project.

A spectroscope of this type is for producing and examining a spectrum. The light from any light source enters the entrance slit. The slit is adjustable and is entirely original. It consists of two extra-thin razor blades arranged parallel to each other. One razor blade is positioned on a moving panel. The slit is made narrower by tightening two screws. It is made wider by loosening the two screws, and by two springs located within the slit itself. The other razor blade is stationary. The light then enters the collimator tube. The purpose of this tube is to make all rays of light parallel. Within this tube is located a ¾-inch diameter lens. This objective or lens is for the purpose of concentrating the light on a 60 degree prism. When the light is directed through the prism the speed at which it travels becomes slower. Each wave length of the original light becomes spread out or dispersed upon leaving the prism. The color is determined by its wave-length, so the shorter the wave-length, the more the light is bent. Since the wave-length of blue is shorter than red, blue is dispersed the greater amount and red the least. Thus all the colors are arranged according to their wave-length.

Here the light is picked up by the telescope which consists of a single objective lens and an eyepiece. The lens picks up the dispersed light from the prism; sharpens the image and focuses it into the eyepiece where it is observed by the viewer as a spectrum. The eyepiece is a Huygens Microscope eyepiece and together with the lens form a telescope of 4-power. This telescope swivels approximately on a 24-degree angle. The prism is enclosed in a prism shield which is a cardboard cover cutting off light and killing all stray reflections. The entire optical system is fastened onto an instrument base. This raises the instrument for observation and steadies it for accuracy. The optical parts were all purchased. The other accessories are mostly scraps.

Recently I have added a built-in scale or a reticle which is calibrated in terms of wave-length by comparing an unknown spectrum with a spectrum having known characteristics. Also in the future I plan to replace the telescope with a camera so that a spectrograph or a picture of a spectrum will result.

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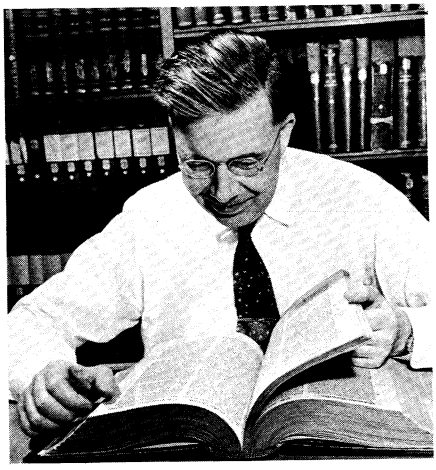


In Memoriam

Samuel A. Ives - 1909-1958

In the unexpected death of SAMUEL A. IVES, Asst. Professor and Curator of Rare Books in the Memorial Library, the University community lost a good friend, an able librarian, a true bookman, and an excellent scholar.

SAMUEL ANTHON IVES died at Okee, Wisconsin on August 9,1958 from a heart attack suffered after swimming. He was born on July 12, 1909 in Brooklyn, New York and received his A.B. degree from Hamilton College in 1930. In 1938 he was awarded a master's degree in classics at Columbia University and later did additional graduate work at Yale.

His experience in the field of librarianship as well as in classical and medieval scholarship was extensive and varied. From 1930-1932 he was Assistant Librarian at The Gennadieon in Athens, when he returned to New York to become the private librarian of George A. Plimpton, scholar, publisher, and collector of manuscripts. In 1934-35, he was on the staff of the Rare Book Room, Library of Congress. The next ten years he spent in the Rare Book Dept. of Columbia University, where he cataloged the entire university collection of manuscripts and was assistant curator in charge of manuscripts in the Plimpton, Smith, and Dale libraries. Before coming to Wisconsin as Curator of Rare Books in 1950, he was a member of the Yale University Library staff, specializing in the cataloging of manuscripts and rare books.

Samuel Ives possessed a good reading knowledge of some eight or ten languages and an unusual proficiency in Latin and Greek. Up to the time of his death, he was still consulted on paleographic questions by New York rare book dealers, having been associated with two of the most important and best-known dealers in the East. His familiarity with classical and medieval bibliography, and the history of books, libraries, printing, and binding was utilized continually with profit by members of the faculty and the Library staff alike. Long experience with scientific books, manuscripts, and booksellers' catalogs had made him an expert in the literature of the physical and natural sciences. He was instrumental in increasing the size, scope, and quality of the University's rare book collections in the history of science, which are nationally recognized as outstanding.

His interests inclined as well toward Biblical scholarship, and he had a fine private library of theology, Biblical commentaries, and editions of the Bible. Several articles based on his research in Biblical and textual history and exegesis have appeared in theological periodicals and in the TRANSACTIONS of the Academy.

Together with Hellmut Lehmann-Haupt, Samuel Ives published An English Thirteenth Century Bestiary, 1942, and was the author

of numerous articles on medieval manuscripts in the George A. Plimpton Collection. He was responsible for the addenda to David E. Smith's Rara Arithmetica, 1939, and with one of his professors at Yale, Clarence Mendell, wrote an article "Ryck's Manuscript of Tacitus," for The American Journal of Philology based on their discovery of a manuscript of Tacitus. In 1944, he translated from the French Gustave Cohen's edition of Geoffroy Tory and Catherine de Medici: An Unpublished Manuscript.

With all his erudition, Samuel Ives was a modest, gracious, and friendly personality, and none of his many friends will forget his kindness, generosity, and dedication to scholarship.

--Adapted from UW Faculty statement by HERBERT M. HOWE, AARON J. IHDE and LOUIS KAPLAN

(Photo by Currys)

In Memoriam

Gordon E. Kummer - 1908-1958

GORDON E. KUMMER was born January 3, 1908 in Milwaukee and died there April 21, 1958. He was president of the industrial real estate firm of Kummer Co., Inc. and a director of the Wisconsin Ice & Coal Co.

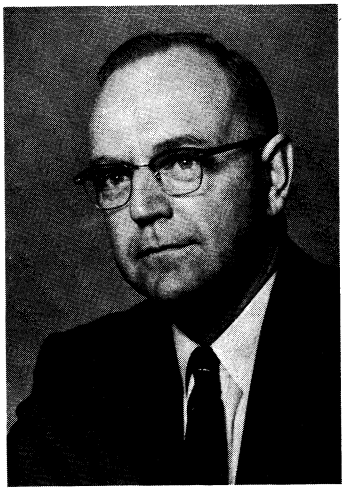
During World War II he was a major in the Air Force and retained his interest in flying and gliding, being a member of many aviation organizations including the Civil Air Patrol. Well known in golfing circles he was a former amateur medal play tournament champion. He was active in the U. S. Golf Association, serving on many committees, and also in local associations both here and in Florida. An ardent conservationist, he owned a 1,000-acre tree farm in northern Wisconsin and also promoted the acquisition of lands to be managed for prairie chicken habitat. He was a member of both local and national Audubon societies, the Wisconsin Society for Ornithology, the Citizens Natural Resources Association and the Wisconsin Academy.

In Memoriam Ada L. Sylvester - 1888-1958

ADA L. SYLVESTER, a native Milwaukeean, was born in 1888 and died May 31, 1958. She was always interested in civic and conservation affairs and for over 30 years was a member of the Milwaukee Woman's Club. She served as treasurer of the Milwaukee County Federation of Women's Clubs for some time. With her husband, Arthur, and their two sons, she was fond of exploring the United States, Canada and Mexico. Her love of the out-of-doors was an inspiration in guiding the footsteps of their two sons into conservation work. William is now Chief Forester for Trees for Tomorrow at Merrill, and Walter (whose posthumously published book is reviewed on page 178) was Associate Professor of Conservation at Wisconsin State College, Stevens Point. She had joined the Academy with her husband in 1957.

In Memoriam

Ellsworth Coe - 1907-1958



ELLSWORTH SPAULDING COE was born March 4, 1907 at Iron Mountain, Mich. and died at Whitewater, Wis. on August 12, 1958. Graduating from Whitewater State College in 1931, he taught school in Shawano for five years before becoming a partner in the Whitewater Register with his uncle, R. K. Coe and brother Charles B. Coe. He assumed the editorship in 1952 upon his uncle's death.

Active in the Wisconsin Press Association, he served as its president in 1952 and won top honor at the Association's 1954 convention for his column "Through the Editor's Bifocals" in competition with other weekly editors. He was a Wisconsin delegate to the White House Conference on Education in 1955 and a member of the Wisconsin Radio and Television Council at the time of his death. A gifted writer, he possessed the natural qualities of a good newspaperman which had come down to him through two generations of Editors preceding him on the Register. He belonged to the Delta Sigma Chi Journalism fraternity and the Milwaukee Press Club and had recently joined the Wisconsin Academy.

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CONTINUED - State and Academy News, from page 189 -
IRA L. BALDWIN, Chairman of Board of Governors, American Academy of Microbiology; MERLE CURTI, Director of Harry S. Truman Library Institute; AARON BOHROD, Board Member for Wisconsin Arts Foundation and Council; J. J. HICKEY, re-appointed editor of the Journal of Wildlife Management; Dr. WILLIAM D. STOVALL, Council of Constitution and By-Laws of the American Medical Assn., ROBERT C. POOLEY, Chairman of Integrated Liberal Studies Program celebrating its 10th Anniversary; LE ROY PETERSON, Associate Director of Extension Division in charge of Milwaukee activities; REID A. BRYSON, representative on Board of Directors of Inter-university Atmospheric Research Program. ... Also, honorary membership in Rumanian Society for Medical Sciences to DALE E. WURSTER while attending International Conference of Pharmacy there this past summer.

# # #

ACKNOWLEDGMENTS - For materials not mentioned elsewhere: Sketches - p. 145, Wis. Water Trails, WCD; p. 149 & 151, Sp.Circ. 23, UW Ext.Serv.; p. 150, Community Indus.Devel.in Wis.--How? Why?, UW Ext.Serv.; p. 156, What's New in Farm Science, UW Coll. Agr.; p. 158-59, Deer Economics, Penn. State Ext.Serv.; p. 160, Charles Schwartz, courtesy WCD; p. 161, Circ.4-H63, UW Ext.Serv.; p. 167, Riley Songs O'Cheer (1905). Photos - p. 152, The Amalgamator, Feb.1958; p. 160, The Story of the Babcock Test, May 1924, UW Coll. Agr.; p. 164, Summer Royal Purple, Wis. State College, Whitewater; p. 175, C. A. Thompson & permission Capital Times; P. 184, UW Photo Lab.

# # #

THE BOOKSHELF

PAPER—THE FIFTH WONDER
By J. H. Ainsworth

Thomas Publishing Company
Kaukauna, Wisconsin
1958 Bound $4.00

Despite its venerable age the pulp and paper industry has evoked few treatises which describe it briefly, simply and thoroughly. In this present series of twelve pamphlets (separately or bound in a single volume) Ainsworth has done the job admirably. Though born in England, he writes from long experience and association with the pulp and paper industry of Canada and the United States. In popular language and with arresting illustrations he covers the subject from raw material to finished product. In fact, the book presents a course for those who wish to know more about this highly important industry. The volume will be understood and appreciated by the neophyte, the nonprofessional and the practitioner.

--Allen Abrams, Wausau

ARTS IN SOCIETY
Bernard J. James, Editor

Univ. Ext. Div. Book Store
Univ. of Wis., Madison 6
1957 $1.50

This Journal of the Arts in Adult Education is the first number of what may become a regularly issued publication. State contributions include an introduction by Dean L. H. Adolfson, transcribed interviews with Frank Lloyd Wright and with the directors of the Fred Miller Theater in Milwaukee, drawings by Nancy Ekholm, Bob Burkart, and Don Gover, photographs by Cameron McCauley, an article on Community Theater by Robert E. Gard, reproductions of paintings and an article Notes by an Artist-in-Residence by Aaron Bohrod, and notes on the Wisconsin Arts Foundation and Council.

There are reprints of articles included by Jacques Barzun and Herbert Read. The most provocative contributions in text are the articles Sociology and Aesthetics by Don Martindale and Who Are the American Intellectuals? by Peter Yates.

-- Frederick M. Logan

GRASS-ROOTS CONSERVATION
By Walter Robert Sylvester

Department of Conservation
Univ.of Michigan, Ann Arbor
1957

In 1952 a team of workers, armed with lengthy questionnaires, interviewed a random sample of farmers in four counties of Southern Michigan. These "land-use questionnaires" analyzed not only the farmer's land practices but his personal feelings, the attitudes of his wife and children. They were probing questions: How do you happen to be on this particular farm? Would you like to see the children stay here on this farm? How does your wife feel about farm work? Does your family go to church? What does

conservation mean to you? However, the core of the questioning revolved around what use the landowners made of the land-use agencies such as the PMA, the SCS and ACP.

Although the study derived its data primarily from three sand-torn counties of the northern part of Michigan's Lower Peninsula, its message is applicable to similar marginal situations throughout other midwestern states. Were these farmers following soil conservation practices, improving production of their lands, assuming the role of protector of the lands which they possessed?

A wealth of material, some controversial, turned up: that by-and-large the farm population in the "cut-over" is more poorly educated than the population in the southern agricultural region, that Catholics and Lutherans apparently are slower in accepting new farming methods than other denominations, that although the farms are larger, their production falls considerably below those in the agricultural region to the south. Even here the rurban (rural-urban) trend is mushrooming with a rurban population exceeding the farm group. "With over half of the rural population not feeling an attachment to and responsibility for the land, one would expect poor land-use practices."

It was learned that landowners do not utilize marketable timber efficiently; furthermore they do not seem to be interested. Only seven of the 243 people interviewed reported attendance at woods demonstrations. "There is a waste of timber and wildlife; the recreational opportunities are used by only a few. The owners need to learn that forests can be used without damaging the wildlife producing capacity of the land. They must learn that the wildlife crop should be harvested or both the wildlife population and the habitat will suffer."

Prof. Sylvester gives considerable space to the history, structure, functions, economic benefits, and emphasizes firmly the shortcomings of the ES, SCS, PMA, and the ACP. While clarifying this alphabetical tangle he reviews the misguided programs which some of the agencies are perpetuating. He takes a dim view of conservation agencies performing the manual labor for the farmer. Such effort, he feels, fails to convey the significance of the conservation measure. "Various types of 'sugar coatings' are put on the 'pill' to make it easier for the farmer to accept. Probably the 'sweetest' of these are financial inducements, but they alone will not accomplish land use changes. ... Getting the farmers to adopt new ways of doing things is a problem of adult education. It is not simple."

A militant program for bringing these conservation practices to the farm population is then presented. First he suggests a physical inventory of all farms containing a "land-use capability map" of each farm. Secondly he advocates the extension of the demonstration farm idea, developed "through the cooperative efforts of all the farm agencies in the county to show the results of the entire agricultural program." He cautions against "face-liftings" in which the entire new farm plan is put into operation in one day with donated labor and machinery. Thirdly the author moves into an excellent discussion on sociological considerations in dealing with people. Leaning heavily on human psychology, he delineates methods for overcoming resistance and for securing cooperation.

Valuable particularly to the land-use agencies, Grass-Roots Conservation should be of import to the conservation teacher and student, the professional conservationist, public relations men in business, the farmer, and the politician. Within 210 pages of thought-provoking argument, Prof. Sylvester leaves a memorial to his searching mind and fluent pen. Conservation prematurely lost

a champion, for Prof. Sylvester died in April, 1957, only two months before his book appeared. Now the book carries on alone, "speaking" boldly for the author's grass-roots farmers and his deep love of the land.--George Becker, Wis.State College,Stevens Pt.

JOHN MILTON: COMPLETE POEMS AND MAJOR PROSE
Edited by Merritt Y. Hughes

The Odyssey Press, Inc.
New York, N. Y.
1957 $6.75

The Wisconsin Academy has reason to be proud of member Merritt Y. Hughes, UW Professor of English, who not only edited, but also supplied the scholarly introduction and notes to this one volume collection. This is an illuminating, well-written commentary on the works of Milton which not only replaced his own earlier three volume work, but, according to "Renaissance News" from the Renaissance Society of America, it "displaced all other editions of Milton for undergraduate and graduate students." Their review of this book (Summer, 1958) continues: "The text, established on sound principles, is beautifully edited and printed; the illustrative material will delight as well as help the reader; the revised introductions to the major poems offer succinct appraisals of the main areas of current research; and the notes to both the poems and the prose-selections incorporate such a wealth of fact and scholarly comment that, taken with the introductions, they virtually provide a condensed variorum for the poems. . . ." -W.E.S.

PRESENT STATE OF ARABIC STUDIES IN THE UNITED STATES
By Menahem Mansoor

Dept. of Hebrew and Semetic Studies, Univ. of Wisconsin
1958 41 p. mimeo.

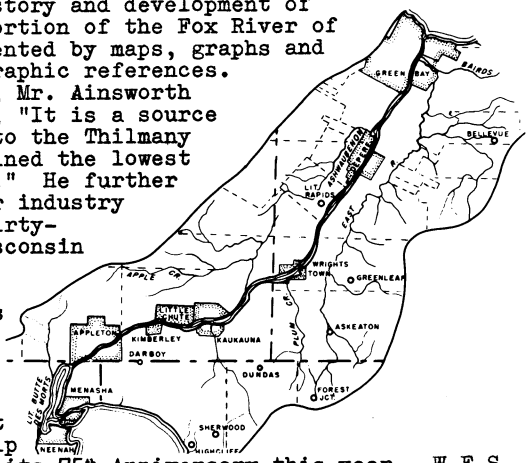
At the 168th meeting of the American Oriental Society held in New York last April, Menahem Mansoor, Chairman of the UW Dept. of Hebrew Studies, reported on this vital subject. His remarks resulted in comments in the London Times, Washington Post and editorial sections of other newspapers which generally pointed out the need for more study of this language. The study admittedly is incomplete, and it is only considered "a provisional summary of the present state of Arabic and Islamic studies." However, it is a factual statement about both University and non-university courses which also considers the general subjects of government needs and the foreign language training programs of both U. S. and Russia. A review in the Minneapolis Sunday Tribune for August 17, 1958 states: "Only 23 educational institutions in the United States ... offer courses in Arabic and fewer than 10 offer degrees in Arabic studies. There are fewer than 30 instructors in the United States qualified to teach Arabic and only about 10 are exclusively engaged in teaching Arabic and Islamic Studies." As a result of this survey report the American Council of Learned Societies has given the University of Wisconsin a grant of $4,100 to prepare five volumes of newspaper and radio Arabic and a dictionary of technical terms through the Department of Hebrew and Semitic Studies. -- W.E.S.

THE LOWER FOX — A RIVER OF PAPER
By J. H. Ainsworth

Thilmany Pulp and Paper Co.
Kaukauna, Wisconsin
1957 57 p. processed

This discussion of pollution, plankton and paper no doubt was published by the Thilmany Pulp and Paper Company to help express their point of view on a controversial question. Nevertheless, it is significant that the author sticks quite close to the facts while showing the progress made by this company in helping

to solve the problem. The author uses clear, concise language to summarize the history and development of this highly industrialized portion of the Fox River of Wisconsin. His text is augmented by maps, graphs and photos as well as 65 bibliographic references. In this non-technical report, Mr. Ainsworth concludes with the statement, "It is a source of not-unjustifiable pride, to the Thilmany organization, to have maintained the lowest pollution ratio on the river." He further comments: "Wisconsin's paper industry leads the nation. Of the thirty-eight papermaking states, Wisconsin leads in number of people employed, dollars invested, total sales volume, and taxes paid. ... In 1956 the paper industry did a far larger business than the state's more widely publicized dairy industry." It is of interest to note that the Thilmany Pulp and Paper Co. is celebrating its 75th Anniversary this year.--W.E.S.



EXPLORING THE UNKNOWN
James A. Larsen, Editor

Free from U.W. News Service
Observatory Hill Ofc.,Madison 6
1958 94 p. - 116 pictures

This beautiful book is a pictorial story of research at the University of Wisconsin. It is especially significant because it contains the pictures of 26 members of the Wisconsin Academy, evenly divided between the research and administrative fields. Academy member James Larsen has done a fine job in editorial direction and preparation of the text devoted to some of the fields of research in which work presently is under way at the UW. Although this report frankly admits omission of the large areas of agriculture and engineering, it does include major sections entitled: "Earth, Sky and Water," "Basic Life Sciences," "The Life of the Mind" and "Man and Society." A final section discusses the all-important subject of research support. In expressing the purpose of this publication, the editor states, "It is hoped the volume will convey some idea of the meaning of research, its application to all fields of intellectual endeavor, and its value in terms of human welfare and satisfactions." -- W.E.S.

THE STORY OF MEDICINE IN WISCONSIN
By Walter Harris

Walter J. Harris, Publisher
4317 Bliss st., El Paso, Texas
1957 175 p. $3.75

The author of this "capsule" summary of Wisconsin's medical history is a former staff writer on the Ashland Daily Press, Superior Evening Telegram, and Chicago Evening Post. He was chief committee coordinator and statewide newspaper publicist of the Territorial Wisconsin Centennial Corporation in 1936 and it was then that he discovered the wealth of interesting historical material in the State's early history. The author's purpose was to pay tribute to Wisconsin's medical men while covering centuries of colorful facts concerning health, epidemics, medicine, surgery and drugs. In keeping with his reporter experience, the style of this book is concise and swift moving. The book also contains an introductory section and index. ---W.E.S.

MILWAUKEE — CITY AND COUNTY
A Statistical History
By Milwaukee Public Library

Milwaukee Public Library
Milwaukee 3, Wisconsin
1958 90 p. processed $2.00
(+ 15¢ on mail orders)

PETER J. McCORMICK, Coordinator of Generals Materials and Services for the Milwaukee Public Library, edited this book in cooperation with the Research Clearinghouse of Milwaukee. Its pages are chuck full of tables, indexes and maps relating to the following subject titles: geography, land use and climate;population; housing; the economy; government; education; recreation; religion; vital statistics and health and welfare. The maps show City of Milwaukee ward boundaries, the Milwaukee County Park System, the "Greater Milwaukee Million Area," Urban Renewal Activity, Milwaukee County Expressway System and School Districts of Milwaukee County. City Librarian Richard E. Krug points out in a Foreword that this is the first such summary since the pioneering report, "Milwaukee Today and Yesterday" was published by the Milwaukee Journal seven years ago. He also predicts that "Milwaukee is on the threshold of a great future. The burgeoning city is busy with civic, educational and industrial projects that will greatly benefit the community." Here is a useful tool for researchers and others interested in making Milwaukee a good place in which to live. --- W.E.S.

WONDERLAND
By John M. Scott, S.J.

Loyola University Press
3441 N. Ashland ave., Chicago 13
1958 197 p. $3.50

In this, his first book, Father Scott of Campion Jesuit High School, truly creates a "wonderland" with beautiful words and many photographs selected with imagination making the best possible use of such visual aids. The 22 chapters cover a wide range of subjects including the biological, astronomical, chemical, physical, geological and many other broad aspects of the world. Father Scott has faith in the magic of words and believes that books are doors to wide new worlds. He opens the introduction to this example with these words: "Fascinating wonder breaks in golden rays across the sky of every dawn, and magic stands tiptoe by your window to make each hour a glittering ruby sparkling with mystery and enchantment. From the sunlight you eat, to the clouds that wash your eyes, there are uncounted marvels in your day." --- W.E.S.

KENOSHA — FROM PIONEER VILLAGE TO MODERN CITY
By Carrie Cropley

Kenosha Co. Historical Society
County Court House, Kenosha
1957 182 p.(processed) $2.50

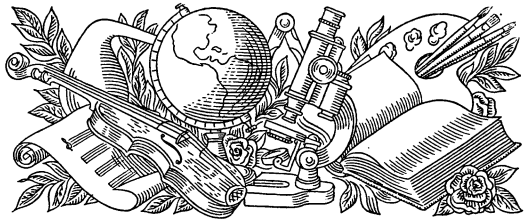
Miss Carrie Cropley, Curator of the Kenosha County Historical Museum and member of the Wisconsin Academy, has done a splendid job of reviewing the history of Wisconsin's fourth largest city covering the century 1835-1935. Not a formal history, this story of Kenosha tells of the yearly growth from pioneer times and some of the people who contributed significantly to its development. While industrial aspects of this growth have been only lightly touched upon, the book is aimed at answering questions most often asked--especially by students. The first 20 pages refer mostly to "Old Southport" which was changed to "Kenosha" in 1850 when it was incorporated by Legislative charter on February 8. It is illustrated by 29 photos and a map and contains not only valuable footnotes but also a bibliography and index. The appendix contains a two-page summary which briefs the years 1936-1957 and a complete list of mayors and city managers. --- W.E.S.

MISCELLANEOUS BOOKS AND BOOKLETS

These recent publications of interest are free from the sources listed unless otherwise indicated. Asterisk (*) indicates that one or more of the authors or editors is a Wisconsin Academy member. From Wis. Conservation Dept., State Office Bldg., Madison 1: "Field Techniques for Sexing and Aging Game Animals"* by DONALD R. THOMPSON and Edited by RUTH L. HINE; "Pond Culture of Muskellunge in Wisconsin"* by LEON D. JOHNSON; "The Wisconsin Muskellunge - Its Life History, Ecology and Management"* by ARTHUR A. OEHMCKE, LEON JOHNSON, JOHN KLINGBIEL and CLARENCE WISTROM; "Smallmouth Bass Streams in Wisconsin;" "The 1957 Deer Kill"* by OTIS S. BERSING, JOHN M. KEENER and JAMES B. HALE; "Wisconsin Mammals" by N. R. BARGER (revised); "Water, Watersheds..and You"* by D. JOHN O'DONNELL (reprt); "Directory--Conservation Dept. Field Personnel Available to Assist School Programs" (revised); "Wisconsin's Way of the Outdoors" by E.N. HEIN; "Yellowstone Conservation Area"* leaflet edited by RUTH L. HINE; "Mauthe Lake Nature Trail" (mimeo); "Annual Report Forest Pest Control Conditions in Wisconsin 1957"; "Forest Resources of Lincoln County" (no.31); "Forest Resources of Price County" (No.32) and "Forest Resources of 32 Northern and Central Wisconsin Counties --Statistical Report" (No.33). Also available now free is "Soils in Relation to Silviculture"* a 171 p. book by S. A. WILDE, F. G. WILSON and D. P. WHITE.

From other State agencies or institutions as indicated: "Publications of the U.W. Geological and Natural History Survey"* Revised 1958 list by GEORGE F. HANSON, State Geologist (Science Hall, Madison 6); five from U.W. Coll.of Agr.Bulletin Mailing Room: "What's New in Farm Science" Jan. & July 1958; "Insect Control in 1958"* by E. H. FISHER and J.M. WRIGHT; "The Co. Agent in Wis." by EUGENE A. WILKENNING and "How Good is Your Land?"* by I.O. HEMBRE, DALE C. AEBISCHER, FRANCIS D. HOLE and MARVIN T. BEATTY (rev.); six from State Historical Society (816 State st., Madison 6): "Report of Planning Committee of the Board of Curators;" "A Guide to Wis. Historical Markers" by Historical Markers Comm.; "Publications and Materials on Wisconsin"--(rev.price list); leaflets by JAMES I. CLARK (25¢ ea.) entitled "Father Claude Allouez--Missionary," "Robert M. LaFollette--Progressive" and "Henry Dodge--Frontiersman;" three from U.W. Extension Div.: "University of Wisconsin Extension Centers" by FELICE GOODMAN, "Community Industrial Development in Wisconsin--How? Why?"* by R. J. COLBERT and "12th Annual Rpt., Bur.Comm.Devel.;" four from Coordinating Committee for Higher Education (State Office Bldg., Madison): "Report on Wis. County Teachers Colleges" by G. E. WATSON, R. F. LEWIS and E. G. WIPPERMAN, "Academic Programs Currently Offered by Wis. Colleges and Universities," "Education--Key to Wisconsin's Future" and "Higher Education Beyond High School (June 1958 Semi-Ann.Rpt.); two from Wis. State Dept. Agr. (State Capitol): "Cranberries of Wisconsin" by VERE E. BUFTON and "1958 Wis. Farm Facts (Production and Marketing)"; from State Dept. of Public Instruction (State Capitol): "Guide to Conservation Education in Wis. Schools--Bibliography;" from State Bd. of Health (State Office Bldg.): "1957 Public Health Statistics;" from State Planning Div. of Bur. of Engineering (State Office Bldg.): "Rural Planning and Zoning" (rev.); from Div. of Ind. Devel., Executive Office (Capitol): "Wisconsin DID Newsletter" edited by PHILIP SANDAL; from U.W.Dept. of Hebrew Studies (Madison 6), reprint on "Some Linguistic Aspects of the Qumran Texts"* by MENAHEM MANSOOR.

From other sources: by Miss. Flyway Council (contact CYRIL KABAT, Wis.Cons.Dept.)--"Wis. Waterfowl Identification Guide" and "A Guide to Miss.Flyway Waterfowl Management." (Continued inside Back Cover)



STATE AND ACADEMY NEWS

REPORT FROM THE SECRETARY

By Roger E. Schwenn
Secretary-Treasurer

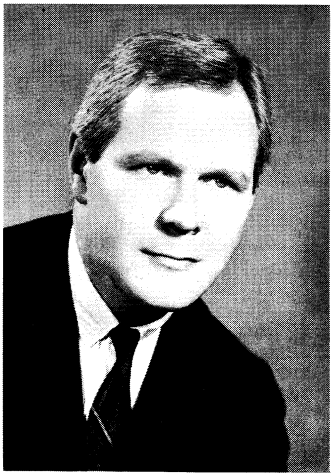
The Council's fall meeting in Madison was held in the Wisconsin Union Board Room, on September 27, 1958. After lunch President ROBERT J. DICKE called the meeting to order with the following present: JOSEPH G. BAIER, HASKELL M. BLOCK, ROY J. CHRISTOPH, OTTO L. KOWALKE, FREDERICK M. LOGAN, HENRY MEYER, KATHERINE G. NELSON, LOWELL E. NOLAND, CYRIL C. O'BRIEN, A. W. SCHORGER, H. A. SCHUETTE, ROGER E. SCHWENN, WALTER E. SCOTT, JOHN W. THOMSON.

Items of business transacted and discussed are summarized as follows:

1. Minutes of the May 2, 1958 Council meeting were approved with a minor change.

2. Editor of the Academy Review reported on the material planned for the Fall 1958 issue and explained that it may be slightly late because of the inconvenience of working with a broken left arm. (Now much better.--Ed.)

3. The Librarian read a report reviewing the fine response secured from Wisconsin libraries which accepted the Academy's offer of TRANSACTIONS back issues and explained plans for continuing this project. He also discussed in detail the implications of a proposed written agreement with the University of Wisconsin Library "to formalize what currently is being done by them cooperatively in connection with the Academy's library and exchanges, and



INTRODUCING - ROGER E. SCHWENN

The Wisconsin Academy's new Secretary-Treasurer, Roger E. Schwenn, is Chairman of the Department of Library Science, U. W. Extension Division (Madison). He was a Librarian in the Extension Division from 1949 until appointment to his present position in 1956.

Professor Schwenn is a native of Madison and was educated at the University of Wisconsin, from where he received an M.A. degree in Library Science. He was Social Studies Librarian in the Stephens College Library (Columbia, Missouri) from 1939-41 and both Reference Librarian and Assistant Librarian for the Ann Arbor Public Library from 1941-49. He is a member of both the Wisconsin and American Library Associations.

possibly to arrange for financial considerations to help bolster the Academy's budget." He received Council approval to prepare a fully documented record of legislative and Academy actions regarding our library together with a statement of the library's value and the need for maintaining it adequately. This then would be presented to the State Budget Director who should be urged to "reconsider his attitude that we are not an official state organization deserving adequate support. Only if they will not give us adequate funds should we ask for a financial arrangement with the University."

4. Unanimous approval was given to a motion calling for a letter of commendation recognizing the excellent and unselfish services of former Secretary-Treasurer FRANCIS D. HOLE.

5. After a brief Treasurer's report and a general discussion of the Academy's budget and financial needs, a motion to the following effect was adopted: that a committee should approach the Budget Director with the goal of securing a legislative appropriation covering full costs of publishing the TRANSACTIONS as determined on the basis of estimates secured from the State Printer (Democrat Printing Company); and, that if our appeal for state government funds is unavailing or the funds inadequate, we should then seek help from University of Wisconsin sources through an agreement for TRANSACTIONS purchase in their exchange program. The President appointed the following members (plus himself) on this Budget Committee: ROGER E. SCHWENN, Chm., A. W. SCHORGER and W. E. SCOTT.

6. As directed by previous Council action, the President appointed a committee to investigate the feasibility of holding joint meetings with other scientific, art or literary groups in the state and to report back to Council. Members are: H. A. SCHUETTE, Chm., STEPHEN F. DARLING and KATHERINE G. NELSON.

7. After clarification by the Council of the function of the Program Committee as a long-range planning group, the President appointed these members to prepare for meetings in 1959 (Platteville), 1960 (Madison) and in 1961: HENRY MEYER, Chm., ROY I. CHRISTOPH, CYRIL C. O'BRIEN, HASKELL M. BLOCK, HAROLD GODER, and Miss ELLA M. MARTIN. The latter two, Professors at Wisconsin State College (Platteville), will be Co-Chairmen of the Local Committee of Arrangements in 1959. The Secretary was directed to reserve use of the new Wisconsin Center Building by the Academy for its 1960 Annual Meeting in Madison the first Saturday in May.

8. Application for membership by the following 17 new members not previously listed (plus 25 others announced on page 144 of the Summer 1958 Academy Review) were accepted:

RICHARD D. BAYENS, Madison
Mrs. MARION EARNSHAW, Milwaukee
HARLEY E. ERICKSON, Superior
WM. J. GREDE, Milwaukee
C. L. R. HOLT, Jr., Madison
Mrs. DOROTHY L. HUCK, Whitewater
Mrs. FRED R. JONES, Madison
J. KENNETH KADDOTZ, Ft.Atkinson
JAMES P. KAYSEN, Cedarburg
ROBERT G. LARSON, West Bend
CHARLES W. LEMKE, Madison
ORVILLE C. LEONARD, Kenosha
EMORY M. PITTENGER, Madison
Miss NINA STROMGREN, Madison
WILLIAM A. TYLER, New London
BJARNE R. ULLSVIK, Platteville
Mrs. RAY J. WOULF, Ft.Atkinson

9. The President appointed a Public Relations Committee in order to improve publicity and understanding of the Academy's program as follows: CLARENCE A. SCHOENFELD, Chm., JAMES A. LARSEN, and another Academy member (news or press service writer) to be selected by them.

10. As a result of discussion regarding the Academy's affiliation with the American Association for the Advancement of Science (A.A.A.S.), plans were made for payment of our $17.00 annual membership assessment and to comply with their request, the President was authorized to appoint a second official representative to that group (not yet done).

11. Vice-President (Sciences) ROY J. CHRISTOPH, who recently was in charge of the Wisconsin Science Talent Search, urged improvement in this program as follows: Personnel: Council should study better support of Talent Search as not enough competitors are reached. Special letterheads should be provided. Activities should be conducted from some central location and the possibility of providing an executive secretary was mentioned. Timing of the return of papers: 8-weeks is too long a period for circulation of papers and a more efficient method should be worked out. JOHN THOMSON, in Charge of the Junior Academy, suggested we should have a committee which will approach corporations and foundations for prize money and he reported on Junior Academy matters. After citing the Minnesota Academy's success in securing an annual $20,000 operating budget (half from the legislature and half from private industries) he stated his conviction that we, too, must seek a parallel goal of adequate funds which will provide the assistance of an Executive Secretary upon whom the increasing administrative burdens of both Junior and Senior activities can be shifted.

12. To assist the Membership Committee, it was agreed that new applicants for membership applying prior to January 1, 1959 should be given the $3.00 rate applicable to 1959 membership and also a free copy of the latest TRANSACTIONS and Academy Review issues. Also, when dues notices are mailed for 1959, members should be urged (by a note from the Secretary-Treasurer) to support the Academy with sustaining memberships if they can afford to do so.

13. Vice-President (Letters) HASKELL M. BLOCK initiated what proved to be a long and fruitful discussion revolving about the matter of increased participation in the affairs of the Academy by scholars in the field of the humanities and of a raising of the quality of contributions to the TRANSACTIONS by members in this area. He proposed that such papers be separately bound though issued as a part of the same volume of the TRANSACTIONS, but no decision was made on this matter. The President appointed a committee to further consider this matter along with the idea proposed by JAMES LARSEN, previous TRANSACTIONS editor, for study of the Academy's publications as to content and format. The new TRANSACTIONS editor also was to be selected by this committee and then he would become a member of the group. With F. D. HOLE as Chairman, the committee consisting of HASKELL M. BLOCK, ROGER E. SCHWENN and WALTER E. SCOTT selected STANLEY BECK, Chairman of the Editorial Committee of the UW Department of Entomology, as TRANSACTIONS editor, and this committee now will continue studies and recommend action on these matters.

14. It was agreed that the Secretary-Treasurer, as usual, should send out the call for papers and annual meeting announcements. Also, as authorized earlier by the Council, the President will appoint a Committee on Financial Planning for study of budget needs, on a long term basis. - - -

The Secretary reports that the following have been proposed for membership since the Council meeting: REGINALD G. NASH of Whitewater and FRANCIS T. SCHAEFER, Madison. Also, library subscriptions have been received from all UW Extension Centers at Green Bay, Kenosha, Madison, Manitowoc, Marinette, Menasha, Racine, Sheboygan, and Wausau. # # #

The Board of Trustees of the Milwaukee Public Museum has selected Stephan F. deBorhegyi, director of the Univ. of Oklahoma's Stovall museum, to be its new Director. ... Retired Director W. C. McKERN (an Academy past president) has moved to 1786 Spruce st., Apt. 104, Berkeley 9, Calif. ... Two new MPM publications are "The Menomini Powwow" by JAMES S. SLOTKIN, U. Chicago (Scientific Series, 166 p., $4) and "Kachina Dolls" by W. BEN HUNT (Pop.Sci.Handbook, 36 p., $1) ... Recent feature articles of significance in the Museum's Lore magazine by Academy members include "The Wisconsin Glacier National Forest Park" by RAYMOND T. ZILLMER (Spring 1958) and "Wisconsin Orchids--A Picture Story" (Summer 1958) by ALBERT M. FULLER,Acting Director.

On May 16, 1958 the Milwaukee Section, American Chemical Society had representatives of 15 high schools and colleges present at their meeting highlighting chemical education. Two outstanding high school science teachers presented letters of commendation were Academy member Mrs. MARY DOHERTY (Kenosha) and Sister ANTHELMA of Notre Dame H.S.,Milwaukee. ...Recipient of the first Milwaukee Section Award Medal for "distinguished service to the profession of chemistry in the Milwaukee area" was J. VERNON STEINLE, Research and Development Vice-President of S. C. Johnson & Son, Inc. (Racine). ... The Milwaukee Section now has approximately 500 members.

The Wisconsin Archeological Society's annual dinner on June 16, 1958 was held in honor of WILL C. McKERN, retiring Director of the Milwaukee Public Museum. ...The W.A.S. now has almost 500 members and continues to grow steadily. ... The Wisconsin Archeologist (edited by Academy member ROBERT RITZENTHALER) for Dec. 1957 and March 1958 are veritable "books" with well over 100 pages each concentrating respectively on "The Old Copper Culture of Wisconsin" and "Aztalan--Exploration and Reconstruction." Annual membership in Wis. Arch. Soc. is $2 to Phil A. Wiegand, 1276 N.63rd Ct., Wauwatosa 13.

The Wisconsin Regional Writers' Association,Inc. celebrated its 10th anniversary at their annual conference (American Baptist Assembly, Sept.26-28, 1958). In the Autumn 1958 issue of their Creative Wisconsin, Editor-in-Chief (and Academy member) Mrs. NEITA O. FRIEND reviews their history including the fact that they had almost 2,000 members after their first five years of growth and now have 23 affiliated district clubs. ... Among the winners in the latest W.R.R.A. writing contest was Academy member ALVIN M. PETERSON (Onalaska), who took first place for articles with his "Pathway to Enchantment" plus an honorable mention in the same class. ... Mrs. EDNA K. MEUDT (Dodgeville) recently took first place in a nation-wide poetry contest of the American Poetry League with her poem, "Young and Fair is Christopher."

New President of the State Historical Society is ROBERT B. MURPHY (Madison). Mrs. HOWARD GREENE (Genesee Depot), wife of an Academy member, was elected second Vice-President and Academy member Dr. WILLIAM STOVALL (Madison) was elected to the Board of Curators. ... At their annual meeting in Sturgeon Bay June 27-28, 1958, the Society honored with citations two members of W.A.S.A.L.--Miss CARRIE I. CROPLEY (Kenosha) for her new book, "From Pioneer Village to Modern City" and WILL C. McKERN (Milw.) for his record of service and studies of Wisconsin pre-history. ... Former Society Director CLIFFORD L. LORD now is Dean of the College of General Studies at Columbia University and has been re-elected recently a President of the American Assn. for State and Local History. ...ALICE E. SMITH, Chief of Research, has been appointed a fellow in the

Society of American Archivists. ... The Brisbois House in Prairie du Chien recently was deeded to the Society by Mrs. Louise E. Root. ... CLIFFORD LORD's "Swan Song" editorial in the Summer 1958 Wisconsin Magazine of History calls attention to the recent report of the Society's Planning Committee outlining needs and plans for the future. Meanwhile, the search continues for a new Director.

The Wildlife Society cited "A Guide to Prairie Chicken Management" by Academy members FRANCES and FREDERICK HAMERSTROM and Oswald E. Mattson to share its Terrestrial Wildlife Publication Award with a similar book, "The Prairie Grouse in Michigan." ... Chief State Forester JOHN A. BEALE recently was appointed by Ezra Taft Benson to the National Forest Tree Research Advisory Committee. He also is Chairman of the Cooperative Forest Fire Prevention Committee of the U.S. Forest Service. ... Academy members LAURENCE A. JAHN and RICHARD A. HUNT, both of Horicon, recently completed their M.S. degrees at the U.W. Dept. of Forestry and Wildlife Management with theses on road-killed deer as population indices in Wisconsin and Artificial propagation of mallards respectively. ... RUTH L. HINE is editor of The Conservationist, a new monthly publication replacing the Conservation Department's Activities Progress Report.

STANLEY POLACHECK (Milw.) is the new President of W.S.O. and R. P. HUSSONG (Green Bay) was elected Vice-President. He will be in charge of the Society's 20th anniversary meeting at Green Bay, May 8 to 10, 1959.... Other Academy members who are W.S.O. officers include Associate Editor HAROLD G. LIEBHERR (Milw.), Publicity Director Mrs. R.P. HUSSONG (Green Bay), Legal Counsel J. ALLAN SIMPSON (Racine), Conservation Director Dr. CHARLES A. KEMPER (Chippewa Falls), Research Director HOWARD YOUNG (LaCrosse) and Supply Dept. Mgr. HAROLD G. KRUSE. ... Mrs. F.L. LARKIN, formerly a W.S.O. Director, recently was honored by the State Federation of Women's Clubs "in recognition of outstanding work in the field of wildlife and ornithology." This was one of their conservation awards in six major areas of conservation.

The State College Regents have approved a budget of $12,037,191 for operating the 10 colleges this year. Largest item is the salaries for 814 teachers during the academic year and 500 during the summer session. There was an increase of 42 new positions planned to handle a predicted enrollment rise of 1,000 students, but the actual fall semester enrollment rose to 13,686 for a 13% increase over last year, forcing the Regents to ask for additional teachers and funds. ... The colleges graduated a total of 1,917 teachers last year and enrolled 5,252 freshmen in the fall semester. Generally, enrollment has doubled since 1952. ... The Regents also are considering a long range building plan which would total almost 71 million dollars and adopted a resolution favoring the merger of Platteville State College and the Wisconsin Institute of Technology also located there. This latter school now is the second largest college for mining engineers in the country. ... The new ASA M. ROYCE men's residence hall was dedicated recently at Platteville honoring the former college president from 1916 to 1942. ... Honors came to two other Academy members from this school when President BJARNE ULLSVIK was featured in a "profile" story by the Wisconsin State Journal and LUTHER ZELLMER received an Award of Merit from the American Association for Conservation Information.

President PERCY L. DUNN, in a recent address to the Milton College alumni, stated that preliminary forecasts of their Central Planning Committee indicated a possible student enrollment of 500 in five years. This committee's surveys also indicate an increasing need for additional

facilities especially in the fields of Business Administration, Science, Library, and both housing and school offices. Serious efforts in faculty "Self Study" continue in preparation for a second filing for accreditation with the North Central Association of Colleges and Secondary Schools.

Beloit College recently honored two Academy members, U.W. President CONRAD A. ELVEHJEM and Beloit Professor Emeritus PAUL W. BOUTWELL, with Doctor of Science degrees in connection with an Institute on Chemistry's Contribution to Mankind. ... A new course in Physics-Chemistry was started this fall designed to replace the conventional first-year courses in both of these subjects. This "integrated course" is entitled "Basic Concepts of Physics and Chemistry" and will be taught cooperatively for a full year by the faculty of both departments. It is believed that students will obtain a better foundation for further study in these fields because the subject matter can be developed in a more logical manner and duplication eliminated.

Marquette University operated a summer Institute in Biology for High School teachers awarded stipends by the National Science Foundation. Academy member Professor REZNEAT DARNELL was Director and 16 Wisconsin H.S. teachers participated. ... Professor James M. Barrett was awarded a research grant of $28,362 from the U.S. Public Health Service for a three-year study of cell division in protozoa. ... Prof. Ralph L. Dix has received a $13,000 grant from the National Science Foundation for a three-year project entitled "Phytosociological Study of Grasslands." ... Last year's Southeastern Wisconsin Science Fair sponsored jointly by Marquette U. and the Milwaukee Journal set a new attendance record of 27,500 topping the previous year by more than 5,000.

University of Wisconsin professors who are Academy members recently received the following honors and awards: A. W. SCHORGER, the American Ornithologists' Union William Brewster Medal for his book "The Passenger Pigeon--Its Natural History and Extinction;" MARION L. JACKSON, the American Society of Agronomy's Soil Science Achievement Award; JOHN D. FERRY, a Guggenheim Fellowship to study viscoelastic properties of macromolecular systems; Dr. H. H. REESE, honorary membership in the New York Neurological Society; GEORGE URDANG, the Italian Association of the History of Pharmacy "Lauri del Palatino 1958" Award; HELEN C. WHITE, the Cardinal Newman Award for intellectual, cultural and social contributions to American Life; M. STARR NICHOLS, the American Water Works Association George Warren Fuller Award (Wis. Section) for distinguished work in this field; JOHN F. VOZZA (Chemistry Extension at Racine), a grant for doing organic research on Madison campus; WILLIAM B. HESSELTINE, the American Association for State and Local History Award for his part in preparing the book, "In Support of Clio;" ROBERT E. GARD, the University of Kansas Department of Speech and Drama Honor Award for developing regional and community theater groups in the Midwest; Dr. WILLIAM S. MIDDLETON, the Wisconsin Medical School Alumni Association Library Fund in his name, and posthumously, new U.W.(Madison) dormitory houses were named after GEORGE S. BRYAN and ALDO LEOPOLD for significant contributions to the U.W., and L. R. INGERSOLL, the new physics museum in Sterling Hall (Madison) named in memory of his service.

New positions resulting from elections or appointments include: HASKELL M. BLOCK, Secretary for North and South America during Congress of the International Comparative Literature Association; HELEN C. WHITE, National Senator to triennial Phi Beta Kappa meeting; Dr. H. H. REESE, five year term on Council of Medical Physics of American Medical Association; (continued on page 177)

INDEX TO SUBJECT TITLES

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INDEX TO AUTHORS

Index to Authors (Continued)

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Miscellaneous Books and Booklets (continued from p. 183)
"Adventure in Paperland" by Wausau Paper Mills Co. (Brokaw,Wis.); "Portrait of a Paper" by The Milwaukee Journal (75th Ann.Series); also from The Milwaukee Journal, "Favorite Fishing Spots Near Milwaukee" (rev.1958, 60¢ + post) and "Hunter's Logbook"* by RUTH L. HINE, CHARLES LEMKE and CYRIL KABAT (25¢ + post); from Lake States Forest Expt. Station (St. Paul 1, Minn.): "Annual Report, 1957," "The Forest Insect and Disease Situation, Lake States, 1957" by DONALD C. SCHMIEGE and RALPH L. ANDERSON; "Incidence of White Pine Blister Rust Infection in the Lake States" by D.B. KING; "Michigan-Wisconsin Forester" Vol. I, No. 1 for Oct.1958, Pub.Semi-ann. by Wis.-Mich. Section of Soc. of American Foresters; printed leaflet "Fire and Taxes"* from ROBERT A. BAILEY (Sarona, Wis.); "Scientific Activities of Six Governments" (Summary 1954 fiscal year survey incl. Wis.) by Nat'l Sci. Foundation (Govt.Prtg.Office, 40¢); by a UW alumnus, MARY ELIZABETH REID, now with Lab.of Nutrition and Endocrinology, Nat.Inst. of Health, "The Guinea Pig in Research--Biology, Nutrition, Physiology" ($2 from Human Factors Research Bureau, Inc., Washington 4, D.C.). END OF VOLUME 5.

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OFFICERS OF THE WISCONSIN ACADEMY OF SCIENCES, ARTS AND LETTERS

PRESIDENT: Robert J. Dicke, King Hall, Univ. of Wis., Madison
PRESIDENT-ELECT: Henry Meyer, Wis. State College, Whitewater
VICE-PRESIDENTS: Sciences: Roy J. Christoph, Carroll College, Waukesha; Arts: Cyril C. O'Brien, Marquette Univ., Milwaukee; Letters: Haskell M. Block, Univ. of Wis., Madison
LIBRARIAN: Walter E. Scott, Madison
SECRETARY-TREASURER: Roger E. Schwenn, Univ. of Wis., Madison
THE COUNCIL: The above-listed officers and the Past-Presidents: Paul W. Boutwell, A. W. Schorger, H. A. Schuette, L. E. Noland, Otto L. Kowalke, W. C. McKern, E. L. Bolender, Katherine G. Nelson, C. L. Fluke, Ralph N. Buckstaff, Joseph G. Baier, Jr., Stephen F. Darling and Rev. Raymond H. Reis, S. J.
COMMITTEES: Publications: The President and Secretary, ex officio, and the Editor of the TRANSACTIONS, Stanley Beck
Membership: Harold A. Goder, Chairman, Berenice Cooper, Otto L. Kowalke, Fred Kaufmann, John F. Vozza, and Frederick W. Hainer
REPRESENTATIVE ON COUNCIL OF A.A.A.S.: Stephen F. Darling,Appleton
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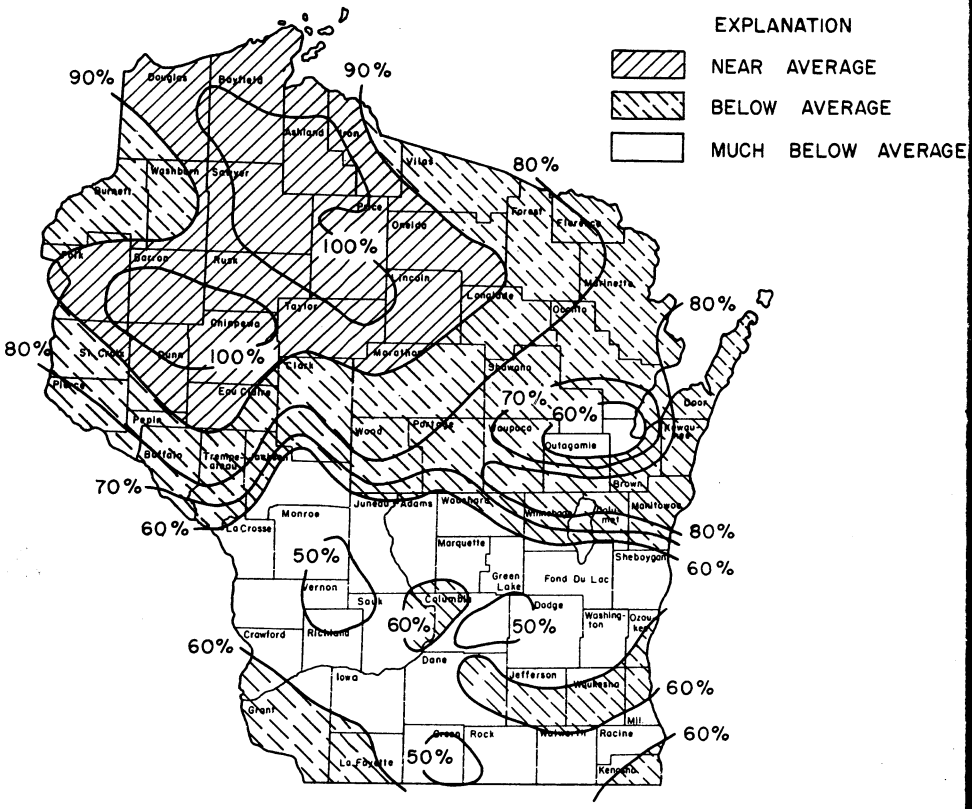
EDITOR, WISCONSIN ACADEMY REVIEW: Walter E. Scott, Madison
EXCHANGE LIBRARIAN: Miss Laurel Nelson, Memorial Library, UW



The U. W. News Service distributed this map on October 15, 1958 along with a coordinated report by the U. S. Weather Bureau, U. S. Geological Survey, University of Wisconsin and State Geological and Natural History Survey showing that this year's lack of moisture in most southern and central Wisconsin counties is comparable to some of the most severe dry periods in the state's history, the early 1930's, 1910, 1895, and 1860. (See also first article inside on this subject by Francis T. Schaefer of the U. S. Geological Survey).