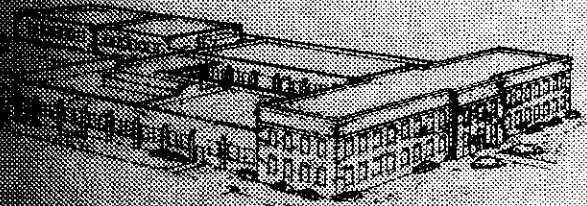
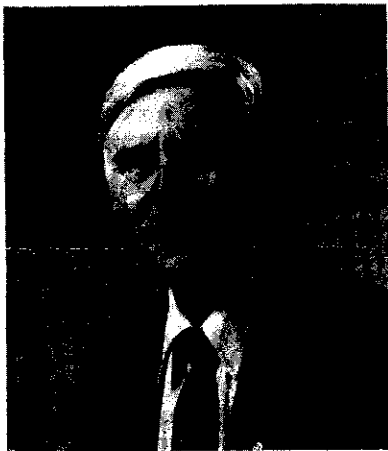


# Davidson Dialogue



Agricultural Engineering Department of Iowa State University

spring 1987



## HEAD LINES

By Howard P. Johnson  
AE Dept. Head

The 1986-87 academic year moves ahead under the leadership of our new college president, Dr. Gordon Eaton. He moved to Iowa State from Texas A and M with a measure of optimism, exuding energy, a friendly outgoing manner and with a new executive vice president, Dr. McCandless. President Eaton is visiting with department heads and faculty in all colleges. In fact, he visited Davidson Hall, listened to Carl Anderson's lecture on hydraulics for about three minutes and then observed the good and the venerable rooms of Davidson Hall and the adjacent Shed. He accepted the presidency at a challenging time; we expect some changes in a year or two under his leadership.

## Progress

When presenting the introduction to the Dialogue, the question of approach and openness often crosses my mind. I'll try to "tell it like it is" without inference.

We have made some progress. Our new computer design laboratory is now in

place; some additional equipment and software items are to arrive. More about the laboratory is presented later in this letter. The USDA-ARS laboratory erected at the Agricultural Engineering - Agronomy Research Station is nearing completion with the construction of an improved moving "soil bin" for tillage research. The Soil Tillth Laboratory, being built with funds provided by the USDA and encouragement from Senators Grassley and Harkin and Representative Neal Smith, is under construction. The "soil bin" and the Soil Tillth Laboratory should be available for cooperative research.

Capital improvements at state schools are on the "back burner" in Iowa. This includes remodeling Davidson. The current emphasis is on biotechnology. A new building for several disciplines related to biotech (\$35x10<sup>6</sup>) is being considered as is a laser facility at the University of Iowa. The buildings will be constructed with funds from Regents Bonds, if supported by the legislature.

## Faculty Changes

Several faculty changes have occurred within the last year. Bill Wilcke completed his Ph.D. and took an extension position at Virginia Polytechnic Institute. Erdal Ozkan accepted an extension position at Ohio State (Power and Machinery); David Williams, safety specialist, accepted an extension position at Missouri.

Because of budget reductions of about 13 percent, two extension positions of seven in the department are not filled. The Midwest Plan Service currently has three professionals compared to five a year ago. Their editor was transferred to the Engineering College; she (Deb Bell-Geiser) has been our Dialogue editor - the reason the letter is later this year. Twenty-two extension

positions were dropped at Iowa State. After the shake out is complete, we will likely replace one of our specialists.

Graham-Rudman law reductions along with state reversions of about four percent forced reductions in the Iowa Agriculture Experiment Station personnel. Two positions, which were to be filled July 1, 1986, continue to be held open. Teaching reversions have been smaller accumulating to about four percent in three years. So far we have not lost research assistantships (graduate student support) because other positions were held open.

## And Faculty Travels

Larry Van Fossen, extension grain processing specialist, returned after two years in Kenya where he served on a team studying grain storage techniques.

Stewart Melvin, soil and water extension specialist, returned from Silsoe, England where he was on faculty leave for a year. Two of our graduates are on the Agricultural Engineering faculty at Silsoe, John Taylor, Ph.D., 1973 and David L. G. Smith, Ph.D., 1983.

Wes Buchele was in China as lecturer and traveler for six months in 1985.

## Trends

Emphasis on new products from grain and on groundwater quality has stimulated new research efforts. Charles Hurburgh is taking leadership with work on grain quality and grain properties. Hurburgh has been appointed to a Congressional Office of Technology Assessment Committee related to control of quality of exported grain.

Jim Baker works with a team of researchers in Agricultural Engineering and Agronomy on surface and groundwater

problems. Nitrogen and pesticide movement and fate along with chemical management receives much attention. Stewart Melvin, Tom Glanville of the extension faculty and Ramesh Kanwar of the research faculty are working on similar problems. Baker recently served on a National Academy of Science Committee working on pesticides in the environment.

Governments in east Asia have a growing interest in graduate study, particularly China, Taiwan, Korea and Malaysia. At present we have a visiting scholar, Mr. Cao Ruizhang, from PRC; last year Dr. Abdelsadek was a visiting professor from Egypt. Presently we have graduate students from nine countries, most of whom have their own support. About half of our graduate students are from foreign countries.

#### Enrollment

Many ask about enrollment in the department. Both Ag Mech and Ag Engineering enrollment are down. Enrollment in the College of Agriculture is down about a third since 1978. Engineering College enrollment has finally topped out. The job market has been better than would be expected since the major machinery companies have hired few engineers since 1981. While the percent of graduates in Agricultural Engineering having job offers by graduation varies, it has averaged about 75 percent over the last several years. We used to say 70 percent were employed in Iowa. Presently it is more like 50 percent.

#### Building Fund

The Davidson Hall Remodeling Fund (528-C with the ISU Achievement Foundation) gradually continues to build. The contributions, while not sufficient to remodel Davidson, are very important and an indication of interest and endorsement as well as construction support. A long list of contributors provides useful public relations assistance when approaching those who make decisions on capital improvements. About 190 alumni, friends and industries have contributed to date.

One of our alumni made a major estate contribution which we will describe in more detail in the next newsletter after all details are available. Frankly, I am pleased with the contributions from our faculty, about \$25,000 to date. Wes and Mary Buchele contributed \$10,000. Others who contributed at the Marston Club level (have contributed \$1,000 or more) are: Dale Hull, Thomas Hoerner, Harold Mesebrink, Pat and Howard Johnson, Sherry and Dwaine Bundy, Thamon Hazen and Loren Shiers. Alumni who qualify for the Marston Club are Clarence Bockhop, Robert Dahlberg, Richard Frevert, Paul Jacobson and Don Shimon.

I am very grateful for the interest shown by alumni, friends and faculty. The remodeling may be done in phases in view of the times. The fire marshall's report keeps the project on the agenda. We will need help from the State. Those of you who live in Iowa can help by indicating your interest and concern to legislators.

#### COMPUTER DESIGN LAB - PUTTING IT TOGETHER

For several years a CAD Lab has been discussed by the department computer committee. However, hardware and maintenance costs were prohibitive. Classes used the University VAX systems in spite of slow turn-around times. Researchers were frustrated by limited operation times when some software was used. In the last year power requirements and reasonable hardware prices were available in some PCs.

Three things made our new lab possible, engineering fees, lower-cost hardware and support of Space and Schedules to clear and improve Davidson 125-D. Funds for the hardware and software were obtained from fees (40%), Department (10%), College of Agriculture (25%) and faculty donations through the Achievement Foundation (25%). The space improvements, ventilation, air conditioning and room improvements, were covered by the Space and Schedules Office.

By next summer the laboratory units should be networked with the large VAX

and NAS units. The nine Zenith 248 units will enable 16 students to attend class at one time. The lab will be available to students and faculty when not committed to classes.

#### Faculty Recognitions and Awards

Several faculty received recognition recently.

-Carl Bern was awarded the Outstanding Instructor recognition in Engineering, 1985.

-Wesley Buchele received a Faculty Citation Award from Iowa State, 1986.

-Howard Johnson was presented the Anson Marston Distinguished Professor of Engineering Award from Iowa State, 1986.

-Carl Anderson completed a term as Chairman, Anson Marston Chapter, Iowa Engineering Society, 1986.

-Thomas Colvin, USDA Collaborator, was awarded Iowa Section ASAE Young Engineer of the Year and is Chairman of the Iowa Section, 1986.

-Thomas Glanville and John Pedersen were recognized by ASAE for excellence in extension publications, 1986.

-James Baker completed a term as Iowa ASAE Section Chairman in 1986.

#### Alumni Are Recognized at ISU

Two alums recently received the Professional Achievement Citation from the College of Engineering. Mel Happe, B.S., Ag E 1941, formerly Vice President of New Holland, and now retired, received the Award in 1985. James Anderson, Ph.D., 1957, received the Award in 1986. Dr. Anderson is Dean, College of Agricultural and Natural Resources, Michigan State. He was also President of ASAE in 1984-85.

#### Students Win Awards

After receiving first place in the Mid-Central competition, Howard Lyon won second place in the National K. K. Barnes Student Paper Award competition. Mitchell Hushak, now with Kraft Foods, Inc., received first place in 1985. The

K. K. Barnes Student Paper Award was endowed by family and friends of ASAE President-elect (1977) Barnes to provide a lasting memorial to his dedication to students. Ken Barnes was a 1952 graduate (Ph.D.) of Iowa State.

The Agricultural Engineering Student Branch was second runner-up in the 1986 Farm and Industrial Equipment Institute Trophy Award Competition, Group B. The Student Branch won first place and the trophy in 1985. The awards are made in recognition of outstanding initiative and accomplishment in Student Branch activities.

#### Scholarships Awarded

The Henry Giese Scholarship was established by Mrs. Giese for a promising graduate student in the Structures and Environment area. This is the first scholarship in the department for a graduate student. Alan Luken and Shawn Shouse divided the award, fall 1986.

The Giese Scholarship is added to the Beresford, Davidson, Charity and Keeney scholarships for agricultural engineers.

The Tom Hoerner Scholarship is given to a freshman in agricultural mechanization. During the last year two additional scholarships were awarded for the College of Engineering.

We are looking for additional scholarships, especially for freshmen. If you can help, please contact H. P. Johnson, AE Department head or the ISU Development Office, Memorial Union.

#### Outstanding Graduate Student

Each year the Taiganides Award is presented to an outstanding graduate student who is on half time support or less. Pradip Dutta (now Dr. Dutta) received the Award in 1986. He has returned to India. The award is supported by Paul Taiganides, PhD '63, in honor of his father.

#### Alumni Briefs

Thanks to all who sent back news of your careers and activities; if you would like to get an address of an alum, please write to us. We will put you in touch.

#### From Overseas:

Rolando Flores-Galarza, MS '81, from Costa Rica is working on a PhD in Grain Science at Kansas State University. Mr. Ceferino L. Fallosco, MS '62, from Metro Manila, Philippines is President of Alpha Machinery and Engineering Company. Rolf Gihbsson, BS '50, Oslo, Norway is director, materials testing company. Dr. Medhat Abd Alla Hemeda, PhD '83, is assistant professor, Mansoura University, near Alexandria, Egypt. Professor A. C. Pandya, MS '49, was Head of Department of Agricultural Engineering, Indian Institute of Technology, Kharagpur, India and is now Director, Gujarat, Energy Development Agency at Baroda.

Dr. Olakayode Oje, MS '81, is assistant professor, Department of Agricultural Engineering, University of Ibrin, Ibrin, Nigeria. Dr. Paul Taiganides, BS '57, PhD '63, is Project Manager, FAO/United Nations, Petaling Jaya, Malaysia.

#### Where you live:

Name \_\_\_\_\_ Year graduated \_\_\_\_\_  
Home Address \_\_\_\_\_ Degree received \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

#### What you do:

Business Title/Profession \_\_\_\_\_ Phone \_\_\_\_\_  
Company/Institution \_\_\_\_\_  
Division/Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

News about you: (community service, board memberships, professional honors, career activities, family information)

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\_\_\_\_\_

Return to: Howard P. Johnson  
Agricultural Engineering Department  
Iowa State University  
Ames, IA 50011

**THANKS!**

1930-1960

Henry Martin, BS '39, retired, was with US Army Armament Command, Rock Island, IL; Floyd Marsh, BS '37, retired from Bureau of Land Management, Prescott Valley, AZ; Donald Evans, BS '40, retired from Corps of Engineers, Omaha, NE; Harold Jewel, BS '40, Engineer, Union Oil Co., retired; Gus Bliesner, BS '39, retired president G. B. Eng. Inc., Newberg, OR; Robert Peart, BS '49, professor Ag. E., University of FL, Gainesville, FL; Merle Esmay, PhD '51, Professor Ag. E., Michigan State, E. Lansing, MI; Harry Meinert, BS '53, retired from John Deere Des Moines Works, Largo, FL; Donnell Hunt, PhD '58, Ass't Dean Engineering, University of IL, Urbana, IL; Clark Rosenberger, BS '52, Principal QA Specialist, Carolina P and L, Raleigh, NC; William Davidson, BS '52, Vice President Design and Development, Singer Co. (Has 69 patents), Pickens, SC; Robert Reinhart, BS '59, Pocahontas Co. Engineer, Pocahontas, IA.

1960-1980

Victor Zitta, MS '64, Professor Civil Engineering, Mississippi State, Starkville, MS; Neil Goodman, BS '63, Director, Engineering Services, Texas Gas Transmission Company, Owensboro, KY; Tom Hitzhusen, Mgr. Experimental Operations and Testing, John Deere Harvester Works, E. Geneseo, IL; Roger Groth, BS '77, Farming, Battle Creek, IA; Darrell Christensen, BS '78, Soil Conservation Service, Bedford, IA; Tom Falk, BS '75, Product Specialist, Massey Ferguson,

Urbandale, IA; Curt Leaf, BS '79, project engineer, Diesel Engine Applications, Onan Corporation, Blaine, MN; Michael Ryan, BS '76, Department head, Storm Water Management, Brice, Petrides, Donahue, Waterloo, IA; Thomas Collogan, BS '77, project engineer, Deutz-Allis, Independence, MO (Tom challenges all 1977 BSAE grads to match his \$250 for the Davidson Hall remodeling project).

1980-1986

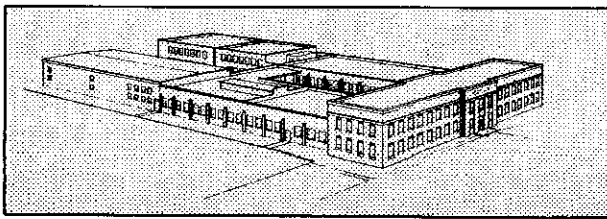
Dan Fox, BS '81, Hydraulic design engineer, White Farm Equipment, Charles City, IA; Joseph Leban, BS '85, Engineer, Ultrasonics Division, Dukane Corporation, St. Charles, IL; Jeff Janke, MS '86, Woods Division of Hesston, Oregon, IL; Gerald Wagenbach, BS '84, Design engineer, Case-IH, Hinsdale, IL; Dana Wilson, BS '81, Plant Supervisor, Butler Mfg. Co., Laurinberg, NC; Sarah Keecker, BS '85, Project Engineer, Green Builders, Inc., Denver, CO; Paul Chicoine, BS '85, Project engineer, Pioneer Hi-Bred Intl Inc., Johnston, IA; Jon Christensen, BS '84, Senior Engineer, Halliburton Services, Duncan, OK; David Wadas, BS '83, Project Development Engineer, Eaton Corporation, Kalamazoo, MI; Larry Landphair, BS '83, Market Development Mgr, Chore-Time Equipment, Milford, IN; Doug Roberts, BS '83, Project Manager, River Grain Region, Bunge Corporation, St. Louis, MO (now in graduate school, Ag. Engr., ISU)

In Memoriam

Dr. Henry Barre, PhD '38, died January 15, 1987; Dr. Ted Willrich, BS '49, PhD '61, died September 27, 1986; Franklin Zink, BS '24, died June 3, 1986; Leonard De Vries, MS '51, died June 11, 1986; David Weeks, MS '19, died March 8, 1986; Louis E. Goffey, BS '26, died March 23, 1986; Paul Linder, BS '52, died in farm accident September, 1985; Newton Hake, BS '23, died June 21, 1985; Eugene Larson, BS '25, died February 20, 1985; William Claussen, BS Ag MI '74, died August 1, 1980; Fred Eggers, BS '22, died February 1, 1985; John Mercer, BS '23, died February 27, 1985; Emil Eliason, BS '40, died January 17, 1985; David Sprague, BS '28, died September, 1984; Frank Hanson, BS '20, died December 24, 1985; Wallace Ashby, BS '13, died about May, 1986 (Mr. Ashby Awarded the Deere Medal in 1985)

ALUMNI

We can use more names and dollars to add to the Davidson Hall Remodeling Fund, (528C) ISU Achievement Foundation. Remember, your interest and support helps us get legislative support.



Agricultural Engineering Department of Iowa State University