

UPDATE

News from the School of Civil
and Environmental Engineering

Cornell University Hollister Hall Ithaca, New York 14853

Spring 1981

R. N. White, editor

WITH THIS ISSUE: An Exchange of Information

As you glance over this issue of *UPDATE*, you will notice a different emphasis: this spring we are featuring alumni news. Of course, there are a couple of items about aspects of the life of the School, along with some news of faculty and student activities.

Two important news items are the appointments of James J. Bisogni as associate director of the School of Civil and Environmental Engineering in January, and of Arnim H. Meyburg as chairman of the Department of Environmental Engineering in July of 1980. Both are continuing to be active in research and teaching - Jim in the area of environmental quality (sanitary engineering to us old-timers) and Arnim in transportation - while they take on the vital responsibilities of administrative leadership.

Bisogni



Meyburg



MASTER OF ENGINEERING (CIVIL): A Unique Graduate Program

Since our School's innovative restructuring of the professional degree of Master of Engineering (Civil) was introduced in 1972, 328 young engineers have received the degree and entered the challenging world of civil and environmental engineering design. The use of real design projects, furnished by eminent practicing engineers, is the heart of the program, and the single most important feature that distinguishes it from the more traditional Master of Science degree program.

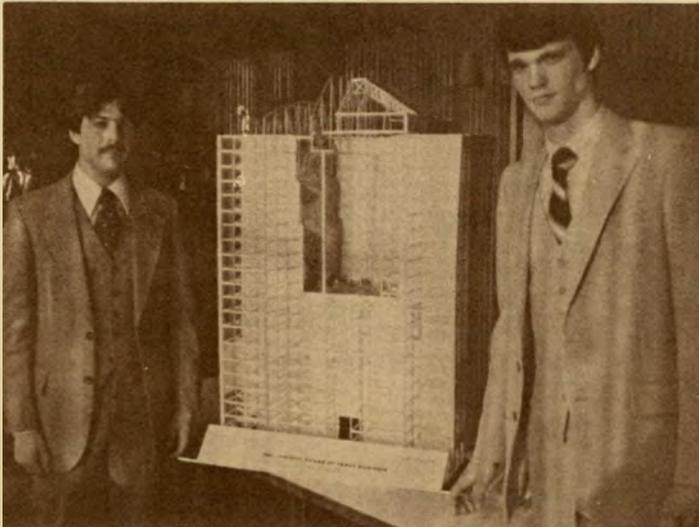
The design project, which accounts for a fifth of the credit requirements for the one-year program, begins with preliminary design during the fall term and culminates in an intensive, full-time final design session during three weeks between the fall and spring terms. The remainder of the program is made up of course work in a major area and a supporting area, plus a single course in professional practice. This professional-practice course covers topics that are too often neglected in the education of engineers: topics such as ethics; the relationship among owners, engineers, architects, and contractors; public financing of major projects; and the organization of consulting engineering firms.

In a typical year we arrange two major design projects, one in environmental quality (sanitary) engineering, and one in structural and geotechnical engineering (see the listings on the inside page). Smaller projects in areas such as transportation, environmental systems, hydraulics, and remote sensing are also offered, depending on the numbers of students who wish to work in those fields. Outstanding practicing engineers are invited by our faculty to sponsor student projects that correspond exactly to actual design problems - projects that the consultants are either working on or have recently completed. After an initial visit by the consultant in early September, the students

NEED AN ENGINEER? *Job opportunities for our students often come through alumni-faculty contacts. Write us any time you need some top-notch talent and we'll pass the word.*

organize into teams and work on the conceptual design of a series of feasible alternative solutions. This highly creative (and difficult) preliminary design work culminates in end-of-the-term formal presentations of design concepts before the consultant, faculty members, and other interested people. Final designs are done during the mid-year intersession in January; the consultant returns to campus to assist in this phase of the project, and visits are supplemented by frequent telephone contacts. By the end of the month, most of the final design is completed. This generally includes the design and analysis of all the major components, the design of typical details (such as connections in a structure), planning of construction, cost estimates, and a fairly complete set of engineering drawings. Another formal presentation is made early in the spring term, and this is followed by publication of a major design report.

There is no question in our minds that the M.Eng. (Civil) degree program offers a distinctive alternative to the more research-oriented M.S. degree program. By focusing on the realities of state-of-the-art design without sacrificing intensive instruction in analysis and behavior, we are able to turn out engineers who are equipped both practically and intellectually to come to grips with tough design situations. Expressed more simply, the M.Eng. (Civil) curriculum puts engineering back into engineering education, and we are proud to be at the forefront in this highly successful approach.



Left: The M.Eng. project in structural engineering for 1980-81 was the design of an addition to the Chicago Board of Trade Building. Shown with the model built for the project are Mike Rolband (at left) and Dan Dyckman, both of whom received their M.Eng. (Civil) degrees last May. (Mike is now a Knight Scholar at Cornell, working on his master's degree in business administration as the final part of a special program in which both the M.Eng. and the M.B.A. degrees are earned in two years of graduate study.)

Below: Consultant Richard Tomasetti, vice president of Lev Zetlin Associates, participated in the final project presentation.

The response to this program from professionals in the field has been outstanding, both in their reception of the graduates and in their willingness to assist in the design projects.

If you would like to become involved in this program, please drop us a line or give us a call. We are always looking for appropriate projects, and experience has shown that the consultants not only have a great time working with the students - they also have a good opportunity to recruit outstanding young engineers.



BUILD AN ENGINEER: An organized way of getting to know the capabilities of student engineers and participating in their education is available through the College's Engineering Cooperative Program. We have details.

M.ENG. PROJECTS IN ENVIRONMENTAL QUALITY ENGINEERING

- Facilities Plan and Final Design Reports for Upgrading of Existing Wastewater Treatment Facilities for Canadaigua, New York.* 1980-81. Consultants: Wayne P. Ackart and Thomas J. Lawson, Lozier Architects/Engineers, Rochester, N.Y.
- Upgrading the Village of Herkimer Water Pollution Control Plant, Herkimer County, New York.* 1979-80. Consultant: William Anderson, Pickard and Anderson, Auburn, N.Y.
- Design of Wastewater Treatment Facility for the Wetzel Road District in Onondaga County, New York.* 1978-79. Consultant: Thomas R. Milnes (Ph.D. '72), Milnes Engineering, Inc., Tunkhannock, Pa.
- Wastewater Treatment Plant for Ithaca, New York.* 1977-78. Consultant: A. Gordon Wheler, partner in Stearns & Wheler, Cazenovia, N.Y.
- Wastewater Treatment and Ground Water Recharge in Suffolk County, Long Island.* 1976-77. Consultants: Consoer Townsend Associates, Chicago, Ill., and Stearns & Wheler, Cazenovia, N.Y.
- Development of an Economical Waste Water Treatment Plant for the Doe Run Effluent, Olin Chemicals Group, Brandenburg, Ky.* 1975-76. Consultant: H. H. Hogeman, Olin Chemicals Group.
- Design of a Radioactive Waste Treatment System for the Off-Shore Atlantic Generating Station.* 1974-75. Consultant: Robert Cherdack, Burns and Roe, Inc., Paramus, N.J.
- Municipal Wastewater Treatment by Automatic and Computer Control.* 1974-75. Consultant: Elmer Ballotti, Greeley and Hansen Engineers, Chicago, Ill.
- Upgrading the Binghamton-Johnson City New Joint Sewage Treatment Plant.* 1973-74. Consultant: Paul Busch, Malcolm Pirnie & Associates, White Plains, N.Y.
- The Evaluation and Preliminary Design of the Bolton Point Water Treatment Plant.* 1972-73. Consultant: Arthur Adams (B.C.E. '65, M.Eng. '66), Greeley and Hansen Engineers, Chicago, Ill.

M.ENG. PROJECTS IN STRUCTURAL OR GEOTECHNICAL ENGINEERING

- Chicago Board of Trade Building Addition.* 1980-81. Consultant: Richard Tomasetti, Lev Zetlin Associates, New York, N.Y.
- High-Rise Building - New York, N.Y.* 1979-80. Consultant: Leslie Robertson, Skilling Helle Christiansen Robertson, New York, N.Y.
- Offshore Oil Platform in Gulf of Alaska.* 1978-79. Consultant: Robert G. Bea, Woodward-Clyde Consultants, Houston, Tex.
- Olympics Facilities.* 1977-78. Consultants: Elio D'Appolonia, D'Appolonia Consulting Engineers, Inc., Pittsburgh, Pa., and Anton Tedesko, consulting engineer, Bronxville, N.Y.
- Churchill Falls Power Project.* 1976-77. Consultants: Charles Atkinson, Dougal McCreath, and David Willett, ACRES American, Inc., Buffalo, N.Y. (This project also involved students in hydraulic engineering.)
- Liquefied Natural Gas Terminal at Cove Point, Chesapeake Bay, Maryland.* 1975-76. Consultant: M. I. Esrig, Woodward-Clyde, Clifton, N.J.
- Design of Bridge Across Piscataqua River (Portsmouth, N.H., to Kittery, Me.).* 1975-76. Consultant: Richard Christie, Hardesty and Hanover, New York, N.Y.
- Offshore Floating Nuclear Power Station - Structural and Foundation Site Aspects.* 1974-75. Consultants: Eugene Harlow, F. R. Harris, New York, N.Y., and H. Singh (Ph.D. '71), Dames and Moore, Washington, D.C.
- Boeing 747 Hangar and Maintenance Facility for LaGuardia Airport, New York.* 1973-74. Consultant: Lev Zetlin (M.C.E. '51, Ph.D. '53), Lev Zetlin Associates, New York, N.Y.
- Design of a Cable-Stayed Bridge over Milwaukee Harbor.* 1972-73. Consultant: Gerard Fox (B.C.E. '48), Howard, Needles, Tammen & Bergendoff, New York, N.Y.



McMANUS LOUNGE: The dedication of this newly refurbished lounge in Hollister Hall was held during Homecoming last fall. The project was paid for with gifts of alumni and others; a complete list of contributors will appear in the next issue of UPDATE.

JOHN F. McMANUS, 1914-1980

The name of John F. McManus (CE '36) brings forth simultaneous sadness and joy. We mourn his untimely death in October, 1980, shortly after his retirement from the College of Engineering. But we rejoice in the realization of the John F. McManus Lounge in Hollister Hall. The lounge, which was completely refurbished with funds contributed by many alumni and friends of the School and the College, is one of the most attractive and comfortable on the Cornell campus, and is much used by students, faculty members, and guests.

John wrote to me from his hospital bed on June 10, 1980, telling me that he would not be able to attend the CEE breakfast during Alumni Reunion. We had planned to dedicate the lounge on that occasion and hoped that John could be there. Parts of his letter will have great significance to many of you:

...Although I have been in exile in the Dean's Office for many years, I have always felt a close affinity to the School of Civil and Environmental Engineering, and have observed its great progress with interest and pride.

But surely this is a time also for reminiscing. I know this can be a bore, but I think some of the great names I will mention, out of the time of my student days in Lincoln Hall, will ring a chord with many of you here. I think of John Perry and of Johnny Parsons; of C. E. O'Rourke and of Deacon Burroughs; of Carl Crandall, Heini Ogden, Spike Pendleton, Walter Conwell, Rym Thatcher, Froggy Pond, Boothy Boothroyd, Fred Asa Barnes and P. H. Underwood; and Shoder and Scofield and Seery; and of Doc Rettger, who was a special pleasure for us since he was the living, honest-to-God personification of the absent-minded professor to whom every absent-minded professor story you've ever heard could be applied.

They were all part of my beginnings at Cornell, and in civil engineering.

So on this occasion I salute those out of the past as well as the fine faculty who today are making this one of the great schools for this era...."



John and Betty McManus posed with an artist's rendition of the proposed McManus Lounge in Hollister Hall. The occasion was a recognition luncheon for John in the spring of 1980.



Jim Norris (BCE '25) and Ed Proctor (also BCE '25) enjoyed breakfast in Hollister Hall during their 45th Cornell reunion in June, 1980.

THE CHINA CONNECTION: A report of last summer's visit to the People's Republic of China by ten Cornell administrators and professors (including President Frank H. T. Rhodes and Engineering Dean Thomas E. Everhart) appears in the Spring 1981 issue of ENGINEERING: Cornell Quarterly. Write us for a complimentary copy.



GRADUATE STUDENTS AND VISITORS: An International Flavor in CEE

Cornell civil engineering has always enjoyed a high international reputation and a rich association with students from foreign nations. This year, with 48 percent of our graduate students from other countries, that tradition is continuing. Our graduate enrollment includes students from 33 countries, as well as seventeen states and Puerto Rico. A tabulation giving the numbers of foreign graduate students is: Taiwan - 12; Canada - 5; Egypt - 4; Brazil - 3; France - 3; Nigeria - 3; South Korea - 3; Costa Rica - 2; England - 2; Greece - 2; Hong Kong - 2; India - 2; Iran - 2; Japan - 2; Panama - 2; and one student each from Australia, Ethiopia, Gambia, Ghana, Italy, Jordan, Kenya, Libya, Malaysia, New Zealand, Saudi Arabia, Scotland, Sudan, Turkey, Venezuela, Wales, and West Germany. We also have two visiting scholars from the People's Republic of China and several more on the way.

STUDENT NEWS: Winners and Workers

Our undergraduate and graduate students continue to set a very strong pace, both in the classroom and in extracurricular activities. Stephen G. Ritchie, a graduate teaching assistant in environmental engineering, won first place in the annual Student Paper Contest of the Transportation Research Forum. And our students once again did extremely well in the national Engineering Student Design Competition conducted by the Lincoln Arc Welding Foundation. The team of Timothy P. Swenk, Craig S. Moller, and Jan Testarmata won first place in the 1980 competition, and another team consisting of Clifford Lau, Scott Damesek, Jeffrey Russell, and James Wholly won fourth place. These students, all B.S. degree graduates last spring, did their design work in the advanced course in structural engineering under the supervision of Professor Teoman Peköz and Visiting Professor Alex Heaney from Australia.



The big "outside" project being undertaken this spring by students in the ASCE chapter is the construction of a covered 1,000-square-foot timber shelter for the local YMCA. Work begun in Hollister Hall (left above) proceeds at the site in Treman State Park (right above).

Right: Co-chairmen of the student project are Sue Wyler, shown going over the plans with an ASCE member, and Al Wooden (not in the picture).



REUNION: Mark your calendar now for the annual breakfast for CEE alumni and friends on Saturday, June 13, from 7:30 to 9:30 a.m. in Hollister Hall. Our breakfast is always one of the real highlights of Alumni Week, and we hope to see you there.

FACULTY NEWS

Jirka



We are pleased to announce the promotions of Gerhard Jirka and Thomas O'Rourke to associate professor, and the appointment of Leonard Lion, a recent Ph.D. from Stanford, as assistant professor in the Department of Environmental Engineering. Jirka is a specialist in fluid mechanics, hydraulics, and thermal pollution; O'Rourke's specialty is underground structures, include the study of soil-structure interaction and the use of geotechnical instrumentation; Lion's special interests are water quality and marine systems, and biogeochemical fate of pollutant trace metals.

O'Rourke



Gergely



Professor Peter Gergely received the Delmar L. Bloem Award from the American Concrete Institute for his "noteworthy service as chairman of ACI Committee 408, Bond and Development of Reinforcement." The award was presented at the annual meeting in Dallas in February.

Lyon



Professor George Lyon has returned to full-time professorial duties after nearly a decade of service to the School as assistant director.

Loucks



Professor D. P. (Pete) Loucks is now associate dean of the College with general responsibilities for graduate education and research. He is continuing his research and some teaching in environmental engineering.

Lynn



Professor Walter Lynn, former director of the CEE School, became director of the University's Program on Science, Technology and Society last July. He also continues many of his activities at the School. Those of you who read *U.S. & World Report* will have seen his article, published in March, 1981, on risks involved in engineering projects.

ALUMNI NEWS

Your response to our first two issues of *UPDATE* (in the spring of 1979 and the spring of 1980) was great; we received dozens of letters and nearly 200 cards. We hope this issue will inspire even more of you alumni to send us your news and comments.

William O. Lynch, a "faculty alumnus," was elected to the vice presidency of the American Water Works Association in January. Dr. Lynch, who is now a partner of Stearns & Wheler in Cazenovia, N.Y., served for eleven years on the CEE faculty. Lloyd L. Conable (B.C.E. '50) is a senior consultant with Hatch Associates Consultants, Inc., of Buffalo and Toronto. (He was once a roommate of Professor Arthur Nilson.) Ang Ban Seng (B.S. '76, M.Eng. '77) has been designing structures in Malaysia since 1977. He reports an urge to return to graduate school in structural engineering in either Australia or the United States.

Phil Carskaddan (B.C.E. '61, M.C.E. '62) and Michael Grubb (M.Eng. '79) are working together at the U.S. Steel Corp. Research Laboratory in Monroeville, Pa. They presented a paper, "Autostress Design of Steel Bridges," at the fall 1980 ASCE national convention in Florida.

HOME COMING: *The School will hold its fourth annual coffee-and-danish hour from 9 to 11 a.m. in the John F. McManus C.E.'36 Lounge on Saturday, November 7, just before the Homecoming game. Bring your family for a morning of refreshments and talk with old friends and faculty.*

- James N. Keenan (C.E. '09) wrote to us from Lakeland, Fla., after seeing the tribute to retired Dean S. C. Hollister in the Autumn 1980 issue of *ENGINEERING: Cornell Quarterly*.
- Raymond J. Hodge (M.C.E. '48), a partner with Tippetts-Abbett-McCarthy-Stratton in Washington, D.C., visited the CEE School last fall.
- Jeffrey Holcomb (B.S. '79), a structural engineer in the Power Division at Gilbert Associates in Reading, Pa., is planning to return for the M.Eng. degree in the fall of 1981. Currently he works for Carl Rentschler (M.Eng. '73).
- John W. Cutler (B.S. '74) recently completed his M.S. studies in ocean engineering at the University of Rhode Island.
- Clay Hines (B.S. '79, M.Eng. '80) and Edward Betz (B.S. '70, M.Eng. '80) are employed by Weiskopf and Pickworth in New York.
- Lowell P. Bassett (C.E. '28) writes from Albany, N.Y., promising to be at the 1983 CEE Alumni Breakfast.
- K. T. Mao (B.C.E. '65, M.Eng. '65), vice president of Woodward-Clyde Consultants in San Francisco, writes of his fall 1980 meeting with John Felleman (B.C.E. '66, M.Eng. '66), who was on a one-semester sabbatical leave from Syracuse University. Mao says that Felleman's visit "prompted the two of us to engage in endless reminiscing and catching up." They resurrected "a lot of old, fond memories of Hollister Hall, classmates, faculty, and fraternity brothers."
- Terry A. Louderback (B.S. '70) has been a principal with Souza and True, Inc., in Cambridge, Mass. since 1977. The firm employs several other Cornell CEE graduates, including Jonathan Buhl (B.S. '73, M.Eng. '74) and Richard Roberts (B.S. '76).
- Robert C. Findlay (B.C.E. '72), managing director of prOWL in Eaton, N.Y., was one of many CEE alums who had a great time at our annual Alumni Breakfast last June. (Why don't you join us this year on Saturday, June 13?)
- William L. Hagan (B.C.E. '47) is manager of construction for the Fuller Co. in Bethlehem, Pa.
- John D. Rees (B.S. '69, M.Eng. '70) is commercial development manager of the Quadrant Corp. in Hillsboro, Ore.
- Rick Schwartz (B.S. '78) is working on a Ph.D. in the area of probabilistic analysis at Stanford University. He got his M.S. in the engineering-economics systems department at Stanford.
- William L. Catto (B.S. '59) is executive director of the Cayuga Water Resources and Environmental Control Agency in Auburn, N.Y.
- Iqbal Qamar (B.S. '74, M.S. '76) is a consulting structural and geotechnical engineer in Karachi. He is also developing Qamar Architects/Engineers, a construction and development firm, in conjunction with his brother.
- J. Randolph Kissell (B.S. '76) is chief engineer at Conservatek, Inc., in Conroe, Tex.
- Rob Ferry (B.S. '74, M.Eng. '75) is vice president for engineering and sales for the same firm.
- Robert S. Wohlsen, Jr. (B.S. '70) of Wohlsen Construction Co., Lancaster, Pa., has written to encourage our further exploration of the introduction of construction engineering into the Cornell CEE curriculum.
- Christopher N. Iversen (B.S. '75) is with Iversen Construction Corp. in Gorham, N.Y.
- Neal FitzSimons (B.C.E. '50) recently sent the School a copy of the Cornell commencement program for 1898. It listed an entire week of activities, ending with commencement on June 16. (We hope that some of you can join us for this year's commencement on Sunday, May 31.)
- Edward F. Watson (B.C.E. '51) is city engineer in Rochester, N.Y.

STOP IN AT HOLLISTER HALL: See the exciting new Computer-Aided Design Instructional Facility on the first floor, and the new laboratory facilities in hydraulics and geotechnical engineering on the basement level.

Robert A. Rubin (B.C.E. '61) recently gave two lectures to CEE students at Cornell.

A partner in the law firm of Postner & Rubin in New York, Bob also serves on the National Academy of Sciences Committee on Management of Urban Construction Programs.

Robert M. Bocchino (B.S. '77, M.Eng. '78, M.B.A. '79) is a project engineer with Energy Impact Associates, Pittsburgh, Pa.

Ralph Verrastro (B.S. '76) is a structural design engineer with McFarland-Johnson Engineers, Inc., Binghamton, N.Y.

Kenneth Wilson (B.S. '79) is designing bridges with Modjeski and Masters in Harrisburg, Pa.

John Zehner (C.E. '26) is enjoying retirement in Nyack, N.Y. He was with the Turner Construction Co. during his entire career, until retirement in 1971.

Malcolm McLaren (B.S. '73) has his own consulting firm, McLaren Associates, in Spring Valley, N.Y.

Thomas S. Rooney (B.C.E. '56) is the new president of Raymond Technical Facilities, Inc. (Raytech).

Clifford Evans (B.C.E. '54) is executive vice president of the Henderson Construction Co., Raritan, N.J.

George Weiss, Jr. (B.S. '65) is Northeast regional manager for Spectr-Physics in Boston. His company produces laser equipment for alignment and leveling.

Robert A. Nevers (B.C.E. '49) has been involved with a variety of structural engineering projects in the Boston area.

Jackson Durkee (M.C.E. '47) specializes in consulting on the construction of major structures from his own office in Bethlehem, Pa.

Wesley S. Jacobs (B.C.E. '59) writes from Houston, where he is involved with U.S. and international engineering activities with Fluor Engineers and Constructors, Inc.

Thomas C. Ames (B.S. '72, M.Eng. '77) is a civil engineer at the Naval Facilities Engineering Command in Philadelphia.

Geoffrey Hunt (B.S. '76, M.Eng. '77) is doing advanced analysis in graphite/epoxy laminates at Boeing in Seattle.

Indra Widjaja (M.Eng. '78) is a structural engineer and site manager for the P. T. Encona Engineering Co. in Jakarta, Indonesia.

Clifford Argue (B.C.E. '64, M.Eng. '66) has been with Continental Airlines in Los Angeles since 1970; he is responsible for acquisition of ground facilities.

Alan H. Schultz (B.C.E. '58) has been named as associate of the Harza Engineering Co. in Chicago. He has been with Harza for more than 20 years and is head of the Water Resources Division.

John Grosskurth (B.S. '71, M.S. '73) is doing aircraft analysis and design at Grumman Aerospace on Long Island.

John S. MacNeill, Jr. (B.C.E. '50), consulting engineer from Homer, N.Y., served last year as secretary of the Consulting Engineers Council of New York State.

Donald E. Henn (B.C.E. '52) has his own contracting firm, Bingham & Henn, Inc., in Plainview on Long Island.

J. A. Mawdsley (Ph.D. '76) is on the faculty of the Division of Hydraulics and Hydrology at the University of Newcastle upon Tyne.

Bruce Spear (Ph.D. '73) is a staff member of the Transportation Systems Center in Cambridge, Mass.

Fred Matthies (B.C.E. '47) is vice president of Leo Daly Co. in San Francisco.

We regret to report the death of John E. Walker (B.C.E. '54), who was head of Remote Sensing at Calspan.