AEESP Newsletter
Association of Environmental Engineering and Science Professors
Volume 39, No. 1 Published three times yearly by the Association of Environmental Engineering & Science Professors January 2004

President's Letter

AEESP–saving mankind from itself for 40 years (and counting)

2003 AEESP Awards

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Happy New Year!

Marc Edwards

In seeking to concisely define the work of an environmental engineer, graduate students at Virginia Tech recently settled on the phrase "Saving Mankind from Itself." This phrase pleased me greatly and has resonated frequently in my thoughts. It captures our past success and the increasing importance of our work. The phrase also temporarily refuted my mid-semester opinion that modern students actually lived by the motto "Saving Myself for Happy Hour."

Our association of environmental engineering and science professors is now 40 years old. We recently passed a trivial milestone in its history, since I am the first president who was not yet born when it was first conceived. In the process of studying the archival communications between the original "Framers," I began to appreciate the achievement of creating an organization that can continually re-orient itself to solve mankind's most urgent problems.

The greatest threat to civilization has historically been the danger of choking indirectly on its own excrement, and in dealing with this priority, it was natural to first call our organization the American Association of Professors in Sanitary Engineering. In the earliest days we learned to revel in doing the work necessary to protect both man and the environment, no matter how distasteful the task appeared to others. Later, this spirit proved helpful in solving other emerging environmental problems, in other countries, and through more frequent application of fundamental science. Each of these changes led us to a name change, but the basic mission of environmental engineering has remained constant.

What are the greatest challenges ahead? Assuming our members continue to be successful at problem solving, the priority problems of the past will not be the problems of the future. Continual assessment is therefore necessary to assess emerging problems, but given the growing diversity of problems addressed and specialty areas represented, we face barriers to broad exchanges that were once routine. Specifically, we no longer have a single scientific conference that is attended by a high percentage of our membership. In spite of this our association grows stronger than ever, mainly because of our members' wholehearted commitment to the profession.

AEESP is taking action to strengthen our sense of community. First and most importantly, we are moving to more frequent conferences, building on the recent success of events in Toronto and Minnesota. This most important effort is led by Chuck Haas, a committee of dedicated volunteers, and AEESP members who will make a major sacrifice to host the event.

I also believe it is possible to modify our web site to facilitate immediate links between environmental engineers interested in discussing problems on and off the beaten path. We can enhance productivity of our membership by exchanging lecture notes, innovative homework problems, and teaching ideas, while simultaneously achieving the more important goal of improving our students' learning experiences. We can use discussion forums to establish links between potential collaborators in research and teaching, partly countering the reality of less frequent opportunities for face to face meetings among our members. We can help match our graduating students with job opportunities offered by our sustaining members. In short, we can try to establish a virtual community on the web that can partly compensate for less frequent opportunities to meet regularly.

Through these efforts and others, AEESP will be positioned to assist future generations of environmental engineers in their noble endeavor to "Save Mankind from Itself."

Marc A. Edwards
President, AEESP

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The AEESP Newsletter online:

www.uidaho.edu/aeesp

Board members, left to right, front row: Catherine Peters (past president), Marc Edwards (president), Pedro Alvarez (vice president). Middle row: Paige Novak, Kim Jones, Lisa Alvarez-Cohen, Lynn Katz (treasurer). Back row: Phil Singer, Mike Aitken, Chuck Haas, Kim Hayes, Joan Rose. Not shown: Amy Zander (secretary).

AEESP Fall 2003 Board Meeting Highlights

The AEESP Board held their fall meeting on October 11-12, 2003, at UCLA in Los Angeles, California. Mike Aitken, Catherine Peters, Marc Edwards, Chuck Haas, Amy Zander (by phone), Lisa Alvarez-Cohen, Kim Hayes, Lynn Katz, Joan Rose, Pedro Alvarez, Phil Singer, Paige Novak, and Kimberly Jones attended.

New officers were elected for 2004: Marc Edwards, President; Pedro Alvarez, Vice-President; Amy Zander, Secretary (continuing); and Lynn Katz, Treasurer.

Chuck Haas gave the treasurer's report. The Association is deeply appreciative of the efforts and resourcefulness of Phil Singer, whose Distinguished Lecture series was very popular and led to generation of a surplus. The Association anticipates a breakeven or slight surplus in 2003, and is therefore making continued progress toward achieving financial reserves within accepted norms.

Haas reported on the progress of the conference planning committee, who has targeted Summer 2005 as the date for the next AEESP conference. The committee is requesting proposals from members who wish to host this conference or the next biennial one in 2007. The location of the 2005 conference will be selected early in 2004.

New committee chairs were appointed: Mirat Gurol, Awards Committee; Philippe Baveye, Publications Committee; and Sharon Jones, Demographics and Diversity Committee. Kurt Pennell will chair the new AEESP Mission Committee. Other committee chairs who continue to serve are listed on the AEESP web site (www.aeesp.org) along with their corresponding Board contacts.

The name of the Student Organizations Committee, which is chaired by Joel Burken, was changed to Student Services Committee, and one of the next projects of this committee will be to develop a sub-site for students on the AEESP web site, which would provide an umbrella for information from several environmental engineering organizations. Information about scholarships, etc., would be posted to this site. The Board allocated start-up funds to the committee for this purpose, and it is hoped that the site will begin providing these services to students in the near future.

The Association is deeply indebted to Professor Mike Stenstrom at UCLA, who provided meeting facilities to the Association at no cost and assisted in making the local arrangements for the Board. The next meeting of the Board will be May 15-16, 2004, at Rice University, in Houston.

2003 AEESP Awards

The following awards were presented at the 2003 AEESP Meet & Greet, held October 13 during WEFTEC in Los Angeles, CA. Congratulations to all of the award winners. Please note that nominations for the 2004 awards are due March 15, 2004. Instructions for making nominations can be found on the AEESP web site, and should be sent to Syed Hashsham (M.S. Theses), Tom M. Young (Ph.D. Dissertations), or Mirat Gurol (all other nominations).

AEESP/CH2M Hill Outstanding Doctoral Dissertation Award

Dissertation: "Biotic and Abiotic Transformations of Alkyl Halides in Iron-Reducing Environments"
Student: Michael McCormick
Advisor: Peter Adriaens (University of Michigan)

AEESP/Parsons Engineering Science Outstanding Doctoral Dissertation Award

Dissertation: "Competitive Adsorption of Trace Organic Compounds by PAC Membrane Filtration Systems"
Student: Qilin Li
Advisors: Vernon L. Snoeyink and Benito J. Marinas (University of Illinois)

AEESP/Montgomery-Watson-Harza Master's Thesis Awards

First Place: "The Photochemical Fate of Pharmaceuticals in the Environment"
Student: Jennifer L. Packer
Advisor: William A. Arnold (University of Minnesota)
Second Place: "Effects of Ethanol on the Migration and Distribution of Gasoline in the Vadose Zone"
Student: Cory McDowell
Advisor: Susan Powers (Clarkson University)

AEESP/Wiley Interscience Award

for Outstanding Contributions to Environmental Engineering and Science Education

Michael J. Semmens (University of Minnesota)

Outstanding Publication Award

for a landmark Environmental Engineering and Science paper that has withstood the test of time

"A Model of Substrate Utilization by Bacterial Films," **J. Water Poll. Control Fed.**, 48:9-24 (1976)
Kenneth J. Williamson (Oregon State University) and Perry L. McCarty (Stanford University)

Walt Bishop (right) of Carollo Engineers, the long-standing sponsor of the meet-and-greet reception at WEFTEC, with Marc Edwards (left), AEESP President, and Catherine Peters (center), Past President, during the reception.

Malcolm Pirnie/AEESP Frontier of Research Award

Frederick G. Pohland (University of Pittsburgh)

AEESP Founders' Award

for Sustained and Outstanding Contributions to Environmental Engineering and Science Education and the Profession

C. P. Leslie Grady Jr. (Clemson University)

AEESP Distinguished Service Awards

Lisa Alvarez-Cohen – for outstanding service as a Board Member of AEESP.

Kim F. Hayes – for outstanding service as a Board Member and Secretary of AEESP.

Patrick L. Brezonik – for outstanding service as Organizer of the Frontiers in Assessment Methods for the Environment Symposium.

Philip H. Byer – for outstanding service as Organizer of the AEESP/AAEE 2003 Education and Research Conference.

Morton Barlaz – for outstanding service as Chair of the Government Affairs Committee.

Brian A. Dempsey – for outstanding service as Chair of the Awards Committee.

Keri C. Hornbuckle – for outstanding service, AEESP Dissertation Committee.

Say Kee Ong – for outstanding service, AEESP Thesis Committee.

Catherine A. Peters – for outstanding service as the AEESP President.

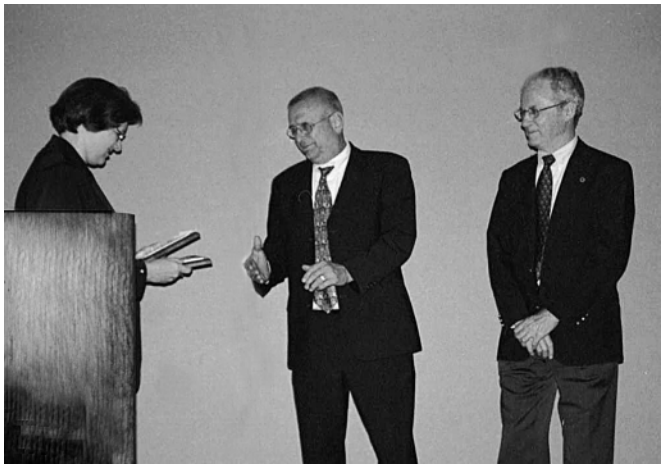
CH2M Hill and Parsons Engineering Science Doctoral Dissertation Awards

Entries are sought for the 2004 AEESP Outstanding Doctoral Dissertation Awards. Two awards will be given, each consisting of a plaque and a cash prize of $1000 for the student, and a plaque and a cash prize of $500 for the faculty advisor. Faculty advisors wishing to nominate a student should send three copies of the dissertation to:

Thomas M. Young
Chair-AEESP Ph.D. Dissertation Committee
Civil & Environmental Engineering
University of California
Davis, CA 95616
tyoung@ucdavis.edu

The submission should be accompanied by a simple letter of transmittal stating 1) the current address, e-mail, and phone number for the student and advisor, 2) an indication as to when the dissertation was completed, and 3) a concise statement defining the student's intellectual contribution to the work. The latter statement is especially important if multiple authors contributed to the work under consideration. The copies will not be returned, so inexpensively bound xerographic copies are recommended. The deadline for submission is March 15, 2004 for dissertations completed during the 2003 calendar year. Faculty advisors are urged to limit themselves to a single entry (which will be considered for both awards); self-nominations by students will not be accepted.

A selection committee of three AEESP members will read and judge each dissertation. Each dissertation is evaluated based on 100 points allocated to the following major categories: Scientific and Technical Merit (30 pts), Originality of Research (30 pts), Contribution to the Advancement of Environmental Engineering and Science (30 pts) and Clarity of Presentation (10 pts). Selections will be made by September so that the recipients and their advisors can be invited to the AEESP annual meeting at WEFTEC in October. Our thanks to CH2M Hill and Parsons Engineering Science for their generosity in sponsoring these awards and to the members of the 2003 Doctoral Dissertation Review Panel: Keri Hornbuckle (Chair), Thomas M. Young, and Paul T. Imhoff.



Ken Williamson (center) and Perry McCarty (right) were presented the Outstanding Paper Award for their 1976 JWPCF publication titled "A Model of Substrate Utilization by Bacterial Films."

Montgomery-Watson-Harza Master's Thesis Awards

Entries are sought for the 2004 AEESP Masters Thesis Awards. First and second place awards will be given, each consisting of a plaque and a cash prize for both the student and the faculty advisor. The cash prize for the first place award is $600 for the student and $300 for the faculty advisor, while the cash prize for second place is $400 and $200, respectively. Faculty advisors wishing to nominate a student should send three copies of the thesis to:

Syed Hashsham
Chair-AEESP M.S. Thesis Committee
A126 Research Complex-Engineering
Michigan State University
East Lansing, MI 48824
hashsham@egr.msu.edu

The submission should be accompanied by a simple letter of transmittal stating 1) the current address, e-mail, and phone number for the student and advisor, 2) an indication as to when the thesis was completed, and 3) a concise statement defining the student's intellectual contribution to the work. The latter statement is especially important if multiple authors contributed to the work under consideration. The copies will not be returned, so inexpensively bound xerographic copies are recommended. The deadline for submission is March 15, 2004 for theses completed during the 2003 calendar year. Faculty advisors are urged to limit themselves to a single entry; self-nominations by students will not be accepted.

A selection committee of three AEESP members will read and judge each thesis. Each thesis is evaluated based on 100 points allocated to the following major categories: Scientific and Technical Merit (46 pts), Originality of Research (15 pts), Contribution to the Advancement of Environmental Engineering and Science (15 pts) and Clarity of Presentation (24 pts). Selections will be made by September so that the recipients and their advisors can be invited to the AEESP annual meeting at WEFTEC in October. Our thanks to Montgomery-Watson-Harza for their generosity in sponsoring these awards and to the members of the 2003 Masters Thesis Review Panel: Say-Kee Ong (chair), Syed Hashsham, and Shankar Chellam.

AEESP/Wiley Interscience Awards for Outstanding Contributions to Environmental Engineering and Science Education

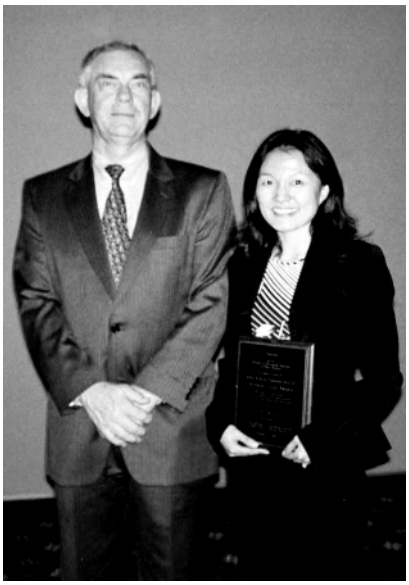
The purpose of these awards is "to honor individuals who are making outstanding contributions to the teaching of environmental engineering, both at the individual's home institution and beyond." The selection process for the "Outstanding Teaching in Environmental Engineering and Science" award favors faculty at the assistant and associate professor level who teach large undergraduate classes and especially those who are developing innovative instructional methods. The selection process for the "Outstanding Contribution to Environmental Engineering and Science Education" award places less emphasis on academic rank and more emphasis on the development of innovative methods, including the dissemination of methods to peers. Only AEESP members are eligible to receive these awards and an individual may receive either award only once. Each award winner receives a plaque and a check for $1000 to be presented at the AEESP annual meeting at WEFTEC in October.

The nomination package should include the following items: a) a resume, tailored to highlight contributions to environmental engineering education; and b) relevant information related to teaching not included in the resume. Some of the following additional materials will be helpful in judging the candidate's qualifications for these awards: a) input from undergraduate and graduate students; b) summary teaching evaluations by faculty and/or students, c) supporting letters from colleagues intimately familiar with the nominee's contributions to environmental engineering education, d) demonstrated innovation and success in teaching; and e) demonstrated effort at dissemination of methods to the academic community. Letters from colleagues outside the nominee's home institution documenting application of software, innovative teaching ideas, textbooks, course notes, mentoring, or other significant contributions will be given special consideration.

The deadline for nominations is March 15, 2004. Nominations can come from former students or from professional colleagues and should be sent to: Mirat Gurol, Chair, AEESP Awards Committee; Civil & Environmental Engineering; San Diego State University; 5500 Campanile Drive; San Diego, CA 92182-1324. Mirat's e-mail address is: mgurol@mail.sdsu.edu.

AEESP Outstanding Publication Award

Nominations are sought for the 2004 AEESP Outstanding Paper Award for a "landmark paper that has withstood the test of time." Nominations must be made by members of AEESP who are not an author or co-author of the paper. The deadline for nominations is March 15, 2004. Nominators should send a copy of the paper and a letter (two pages maximum) to the chair of the awards committee: Mirat Gurol, Chair, AEESP Awards Committee; Civil & Environmental Engineering; San Diego State University; 5500 Campanile Drive; San Diego, CA 92182-1324. Mirat's e-mail address is: mgurol@mail.sdsu.edu. The letter should give the citation, the reasons why the paper has been considered a "landmark," and a description of the influence the paper has had on the practice of environmental engineering and science.



Qilin Li (right) was presented the Outstanding Doctoral Dissertation Award by John Koon of Parsons (left). Her advisors at the University of Illinois were Vern Snoeyink and Benito Marinas.

Any author of a winning paper is ineligible in the competition for a period of three years, and at least one of the authors must be living. The most recent winners are:

2001 E. L. Thackston and P. A. Krenkel. "Reaeration Prediction in Natural Streams", J. Sanit. Engrg. Div., ASCE, (95) 65 (1969).

2002 M. Elimelich and C.R. O'Melia. "Kinetics of Deposition of Colloidal Particles in Porous Media", Environ. Sci. Techn. (24) 1528 (1990).

2003 K.J. Williamson and P.L. McCarty. "A Model of Substrate Utilization by Bacterial Films", J. Water Poll. Control Fed, (48) 9 (1976).

Les Grady accepts the Founders' Award, one of AEESP's highest distinctions.

Mike Semmens (right) was presented the Award for Outstanding Contributions to Environmental Engineering & Science Education by Jim Harper (left) of John Wiley & Sons.

Marc Edwards (left) presents an Award for Distinguished Service to Catherine Peters (right) for serving on the AEESP Board and as President in 2002-03.

AEESP members:

Have you moved or has your address changed?
Send address changes to:

Joanne Fetzner
AEESP Business Office
2303 Naples Court
Champaign, IL 61822

Please reflect on the papers that you think have had the greatest impact on environmental engineering and science and consider nominating one for this award. Note that papers in all areas of environmental engineering and science, including air pollution, water quality, solid waste, hazardous waste, etc., are eligible.

Malcolm Pirnie/AEESP Frontier of Research Award

The purpose of the Frontier Award is "to honor an individual who has advanced the environmental engineering and science field through recognized research leadership and pioneering efforts in a new and innovative research area." All AEESP members are eligible for this award. The award consists of a plaque and a cash prize of $1000 to be presented at the AEESP annual meeting at WEFTEC in October. Only AEESP members are eligible to nominate candidates. The deadline for nomination is March 15, 2004. Nominations should be submitted to: Mirat Gurol, Chair, AEESP Awards Committee; Civil & Environmental Engineering; San Diego State University; 5500 Campanile Drive; San Diego, CA 92182-1324. Those making nominations must submit a supporting statement plus selected literature citations detailing the nominee's contribution to the new and innovative research achievement for which the nominee is being nominated.

AEESP Founders' Award

The AEESP Founders' Award is given annually to recognize an AEESP member who has made "sustained and outstanding contributions to environmental engineering and science education and the profession." Previous recipients of the Founders' Award are listed below.

1991	E. Robert Baumann, Iowa State University
1992	Perry L. McCarty, Stanford University
1993	Richard Engelbrecht, University of Illinois
1994	Daniel A. Okun, University of North Carolina-Chapel Hill
1995	Charles R. O'Melia, Johns Hopkins University
1996	Earnest F. Gloyna, University of Texas at Austin
1997	Linvil G. Rich, Clemson University
1998	Richard I. Dick, Cornell University
1999	Vernon L. Snoeyink, University of Illinois
2000	Walter J. Weber, Jr., University of Michigan
2001	John L. Cleasby, Iowa State University
2002	Thomas M. Keinath, Clemson University
2003	C.P. Leslie Grady Jr., Clemson University

To make a nomination for the 2004 AEESP Founders' Award, contact the chair of the awards committee: Mirat Gurol, Chair, AEESP Awards Committee; Civil & Environmental Engineering; San Diego State University; 5500 Campanile Drive; San Diego, CA 92182-1324. Mirat's e-mail address is: mgurol@mail.sdsu.edu. The award will be presented at the AEESP annual meeting at WEFTEC in October.

AEESP members may submit 'Member News' items to Amy E. Childress, AEESP Newsletter Editor, amyec@unr.edu.

University of Arizona

John Crittenden, a national leader in water quality research and environmental engineering and a member of the National Academy of Engineering, joined Arizona State University (ASU) to continue his cutting-edge research in the area of sustainability.

Crittenden will hold the Richard Snell Presidential Chair in the Department of Civil and Environmental Engineering at ASU's Ira A. Fulton School of Engineering. He began his appointment this month (January, 2004).

Sustainability strives for development of technologies that are ecologically sound, economically viable, socially just, and humane.

"Students are very excited about working in this field, because the new contributions of environmental engineers and scientists will be in sustainability," Crittenden said. "The only practical solution to our environmental problems is to engineer systems that sustain the entire world's population now and into the future."

Crittenden was Presidential Professor in civil and environmental engineering at Michigan Technological University, Houghton. He is a leader in air- and water-treatment technologies, particularly the development of processes for the removal of toxic organic compounds. It is for this work that he was elected to the National Academy of Engineering in 2002, one of the highest honors bestowed upon an engineer.

Crittenden also played a crucial role in the development of the National Center for Clean Industrial Treatment Technologies, which performs research into various aspects of sustainability, and includes the participation of three universities, 57 companies, and 33 governmental agencies. Its work has led to 200 publications and seven patents.

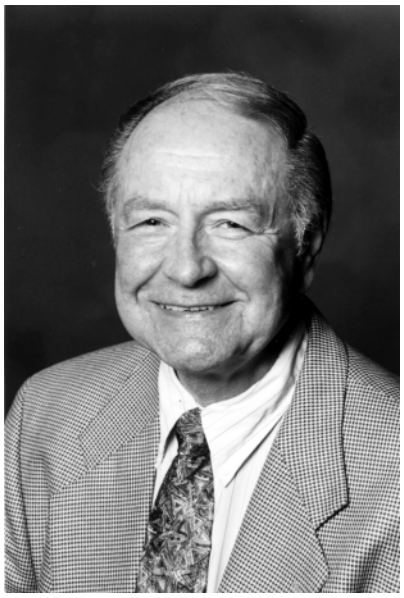
Kristen Jellison

Lehigh University

Dr. Kristen Jellison joined the faculty of the Department of Civil and Environmental Engineering at Lehigh University as an assistant professor in August 2003. Dr. Jellison obtained her Ph.D. in Civil and Environmental Engineering from Massachusetts Institute of Technology in June 2003 and holds a B.S. in Civil and Environmental Engineering from Cornell University. Her research interests focus on the prevention of waterborne disease through both improved water treatment and a thorough understanding of the environmental sources, fate, and transport of microbial pathogens. To date, Dr. Jellison's work has focused primarily on *Cryptosporidium* spp., protozoan parasites that cause a gastrointestinal disease in humans that can be prolonged and potentially life-threatening for the immunocompromised population. At MIT, Dr. Jellison studied the sources and species of *Cryptosporidium* oocysts in the environment and received graduate research fellowships from both the National Science Foundation and the U.S. Environmental Protection Agency. Currently planned research in Dr. Jellison's lab includes an investigation of the impact of environmental stressors (e.g., ultraviolet radiation, oxygen depletion, and extreme pH) on *Cryptosporidium* spp. oocyst viability and a study of oocyst fate and transport in the subsurface environment. Ultimately, findings from her work will provide a better understanding of *Cryptosporidium* spp. survival and transport in the environment and enable the development of effective watershed management to reduce the risk of human exposure to viable waterborne oocysts.

University of Michigan

Dr. Walt Weber, Gordon M. Fair and Earnest Boyce Distinguished University Professor and principal architect of the highly regarded Environmental and Water Resources Engineering (EWRE) Program at Michigan, has moved his primary departmental appointment and administrative affiliation from Civil Engineering to Chemical Engineering as of September 1, 2003. Citing more consistent philosophical and programmatic compatibilities, Walt joins six other faculty in Chemical Engineering comprising the Energy and Environmental Systems thrust group in that Department. Another EWRE faculty member, **Linda Abriola**, also transferred from Civil to Chemical Engineering prior to subsequently accepting the position as Dean of Engi-


Walt Weber

neering at Tufts University in Medford, Mass. Walt has held a secondary appointment in Chemical Engineering for many of the forty years he has been at Michigan and has drawn heavily upon pools of undergraduate students in chemical engineering at Michigan and elsewhere in developing a large share of the group of students he has mentored. Many of his 70 Ph.D.s have moved on to teaching and research careers of their own, and have had significant impacts on the field of environmental sciences and engineering as now taught and practiced. Walt continues to maintain and operate the same research facilities and to teach the same cross-departmental courses he has in the past. His new office address in Chemical Engineering is Rm. 4103 ERB Building, 2200 Bonisteel Blvd., University of Michigan, Ann Arbor MI.48109-2099. His email (wjwjr@umich.edu), telephone (734-763-2274), and fax (734-763-2274) all remain the same.

AEESP Newsletter policies

Submissions deadline

The AEESP Newsletter is published three times a year in January, April, and September. The deadline for newsletter submissions is one month prior to the publication date. Please keep in mind when submitting items with deadline dates that members receive issues four to six weeks after the submissions deadline.

Advertising policy

Any advertisement, including faculty, post-doc or student ads, or other types of announcements submitted by an AEESP member, will be free for the first 250 words (approximately 1/4 page) and then charged at $1 per word for additional content, if formatted to fit in a column.

Non-members will be charged at the per word rate for any size column-formatted ad. Full page formatted advertisements will be charged at $500 for members and $1,000 for non-members. All formatted full page ads will be accompanied by a free web ad.

Photo submissions

Photo submissions to the AEESP Newsletter are encouraged. Please submit your photos electronically (to amyec@unr.edu) in jpeg format at the highest dimension for downsizing to print resolution (preferably less than 750 KB). Also, please include captions with names, locations and dates.

The submissions deadline for the April 2004 AEESP Newsletter:

March 1, 2004

American Academy of Environmental Engineers

The American Academy of Environmental Engineers (AAEE) was established almost 50 years ago with the purpose of "serving the public by improving the practice, elevating the standards, and advancing public recognition of environmental engineering through a program of specialty certification of qualified engineers." The specific mission of the Academy is to "ensure excellence in the practice of environmental engineering so as to protect public health, safety, and welfare and to enable humankind to co-exist with nature." Diplomates certified by the American Academy of Environmental Engineers have proven that they have specific expertise in one or more of the environmental engineering specialties recognized by the Academy. These individuals possess, at minimum, an appropriate university four-year degree or higher, a professional engineer's license, and at least eight years of post-college environmental engineering experience. They also have successfully completed the Academy's written and oral examinations in the specialty in which they are certified and annually complete a prescribed amount of continuing education.

Certification is available in the following specialties: air pollution control, general environmental engineering, hazardous waste management, industrial hygiene, radiation protection, solid waste management, and water supply/wastewater engineering. ASCE is currently planning a similar specialty certification program in civil engineering.

The AAEE is the lead society for environmental engineering education program accreditation. It is a full partner in the Accreditation Board for Engineering and Technology (ABET), which accredits all engineering curricula. AAEE trains and provides Environmental Engineering Program Evaluators who must be AAEE Diplomates.

Because of their common educational goals, AAEE and AEESP have a long-standing relationship. For many years they co-hosted the AEESP/AAEE Education Conferences. AAEE will continue to support the conferences by encouraging Diplomates to attend and to become involved in conference activities. In response to a request by the AEESP Board, AAEE has recently agreed to have AEESP representatives serve as voting members on the AAEE Education Committee that, among other duties, establishes ABET program criteria. AAEE also recognizes research distinction through an annual Engineering Excellence Award for University Research (available to all university researchers). In addition AAEE officially recognizes environmental engineering student associations and provides them with many membership benefits that serve to encourage them to pursue registration and certification in the future.

Faculty membership in AAEE has many benefits. Certification clearly establishes professionally recognized proficiency in an environmental engineering specialty area. In addition, AAEE membership allows faculty members to become ABET Program Evaluators which provides invaluable service in the accreditation process. Further, faculty Diplomates are demonstrating to their students their own commitment to professional licensure and life-long learning.

Given that AAEE views licensure as a key to elevating the practice of environmental engineering, professional engineering licensure is a requirement for regular membership. However, AAEE recognizes that outstanding contributions are made to environmental engineering by individuals without a PE, and offers affiliate membership status to those individuals in AAEE. This may be considered a direct analog to the affiliate membership offered by AEESP to individuals interested in supporting environmental engineering education.

More information can be obtained at the AAEE website, http://www.enviro-engrs.org/newlook/about.htm, or by contacting the AEESP liaison to AAEE, Debra Reinhart, PhD, PE, DEE at reinhart@mail.ucf.edu.

This article was written by Debra Reinhart, AEESP liaison to AAEE and member of AAEE Board of Trustees. It was written in response to a request by the AEESP Board of Directors, who felt that the AEESP Membership could benefit from a concise statement about the Academy, its mission, and its relationship to AEESP.

Environmental Engineering Education (E3)

An international perspective

Environmental engineers and scientists are faced with an increasing complexity of environmental challenges. How can environmental engineering education at universities best prepare students to meet these challenges today and in the future? The 2nd International Seminar on E3 held in Zurich (Switzerland) September 24-26, 2003, addressed this question. The seminar was organized by the specialist group on E3 of the International Water Association (IWA). In 1999, the first seminar on E3 was held in Zurich, and its focus was on Europe. This second seminar provided a broader perspective evaluating E3 in both industrial and developing countries and highlighting future directions and innovative approaches.

E3 varies widely between different countries and different universities. In many cases, E3 is still integrated into the civil engineering curriculum, in other cases E3 is associated with chemical or biotechnological engineering, and a growing number of universities have started to offer separate undergraduate and graduate environmental engineering degrees. However, independent of how E3 is organized at different universities, there seems to be an agreement that solving the complex environmental problems of the future will require interdisciplinary approaches and an education that is based on fundamental principles of engineering, natural sciences, and increasingly, the social and economic sciences. E3 is a dynamic field. The semi-

nar in Zurich provided an interesting forum with lively discussion among the 39 participants from 18 countries.

Willi Gujer, ETH Zürich/EAWAG
Eberhard Morgenroth (Chairman of the E3 specialist group), University of Illinois

Air & Waste Management Association

Randel Martin and Sarina J. Ergas

The 2003 Air & Waste Management Association Annual Conference and Exhibition was held in San Diego, CA June 22-26. The student program included a poster competition, an awards reception and a career forum. The University of Florida and California Polytechnic State University received top student chapter awards for large- and mid-sized schools, respectively. The meeting also brought together AEESP and A&WMA members for a Meet & Greet breakfast. Dr. Richard Corsi of the University of Texas, Austin gave a presentation entitled "Indoor Environmental Science & Engineering: A Time for Recognition." Dr. Corsi noted that although indoor air quality (IAQ) is of critical importance from a public health standpoint, the topic is rarely integrated into Environmental Engineering and Science curricula. He gave examples of IAQ problems that could be integrated into Environmental Engineering courses. More information is available at www.ce.utexas.edu/prof/corsi/home.html.

Waste-to-Energy Research and Technology Council

Academic researchers and research groups concerned with recycling, waste-to-energy, anaerobic digestion and other facets of Integrated Waste Management are invited to join the Waste-to-Energy Research and Technology (WTERT) Council (www.columbia.edu/cu/wtert; e-mail to earth@columbia.edu). The Council was founded in 2002. The last meeting of WTERT, at Columbia University on Nov. 13-14, was attended by one hundred academic and industrial engineers. At this time, the academic consortium of WTERT consists of Columbia, Stony Brook (SUNY) and Temple Universities, in the U.S., and Delft and Sheffield Universities, abroad. The objective of WTERT is to advance technologies for the recovery of materials and energy from municipal and industrial solid wastes, by means of joint research projects and the dissemination of technical information. The current Chair of WTERT is Prof. Nickolas Themelis of Columbia University.

Water Law Review Committee

Gene McCall, a Greenville, South Carolina attorney and AEESP Affiliate Member, is Chair of the Instate Subcommittee of the Governor's Water Law Review Committee. There are also subcommittees to address NC-SC and GA-SC water law issues. Governor Mark Sanford established the committee by Executive Order to review water law in South Carolina. The committee is chaired by University of South Carolina Law Professor Steve Spitz and has 18 members from a wide variety of diverse interests including judges, members of the S.C. General Assembly, public interest advocates, private interests, water suppliers, and various state regulatory agencies.

The last time the State undertook a comprehensive analysis of water issues was over 20 years ago. Several laws were enacted and others were amended as a result of that effort. Since then, the population has dramatically increased and industrial, agricultural, and municipal water uses have risen commensurately. Additionally, a four-year drought from the summer of 1998 through the fall of 2002 highlighted the significant use and, at times, lack of availability of water in the State.

The Committee will present its report and recommendations to the Governor in January 2004.

University of Central Florida

Call for Graduate Students

Project: "Control of Distribution System Water Quality in a Changing Water Quality Environment Using Surface Active Agents"

The University of Central Florida (UCF) is seeking several qualified graduate students to begin working in August 2004 on a large drinking water research project (total amount of funding: $1,500,000) funded by the American Water Works Association Research Foundation and Tampa Bay Water in a Tailored Collaboration Project. The purpose of the grant is to conduct research using surface active agents (inhibitors) for control of distribution system water quality in a changing water quality environment induced by the blending of surface, ground, and saline sources.

Students interested in this project should contact Dr. J. S. Taylor, Civil and Environmental Engineering Department, University of Central Florida, PO Box 162450, Orlando, FL 32816-2450, by mail or by phone, fax or email at 407-823-2785, 407-823-3315, or taylor@mail.ucf.edu. Knowledge of water treatment, microbiological and chemical water quality analyses, driving, driver's license, and field maintenance is desirable. The ability to effectively speak and understand English is essential. Biweekly stipend, full tuition, opportunities for national conference presentations and publication in refereed journals will be available for qualified students. Students can apply online and must furnish ETS certified copies of GRE and TOEFL (international students from countries which do not have English as their primary language) to the UCF Graduate School by Feb. 1, 2004 to enter in August 2004. The UCF Ph.D. program application forms are available on the web at http://www.graduate.ucf.edu.

Lehigh University

ENVIRONMENTAL INITIATIVE DIRECTOR. Lehigh University seeks a distinguished senior faculty member to serve as Director of its Environmental Initiative (EI). The EI is a multidisciplinary effort to bring scientists, engineers, social scientists, and humanists together to focus their expertise on environmental research and education. The Director provides synergistic leadership for a multi-disciplinary group of faculty and staff across Lehigh's colleges: Arts and Sciences, Engineering and Applied Science, Business and Economics, and Education. The EI is part of a $75M plan to invest in Lehigh academics.

Candidates must possess a national and/or international scholarly reputation in a field related to the environment; a commitment to excellence in graduate and undergraduate education; a successful record of external fund raising; familiarity with a university setting, preferably in an administrative capacity; and outstanding communication and leadership skills. Candidates must have a Ph.D., but the specific area is open and might include the environmental sciences, engineering, or the social sciences and humanities. The position will be a joint appointment within the Environmental Initiative and a department best suited to the successful candidate's field.

Review of applications will begin January 15, 2004 and continue until the position is filled. Candidates should submit a curriculum vitae, a statement of educational philosophy and multi-disciplinary research opportunities in the area of the environment, and a list of four references with complete contact information.

Electronic submission is preferred: ineidire@lehigh.edu
Prof. Stephen Cutcliffe
Chair, EI Director Search
Lehigh University
31 Williams Drive
Bethlehem, PA 18015

Further information about Lehigh's Environmental Initiative can be found at: www.ei.lehigh.edu.

Lehigh University is an equal opportunity/affirmative action employer and is committed to recruiting and retaining women and minorities.

University of Nevada, Reno

LECTURER POSITION IN ENVIRONMENTAL ENGINEERING. The Department of Civil Engineering at the University of Nevada, Reno invites applications for a lecturer (50% teaching/ 50% research) position in the area of environmental engineering. The candidate must have a Ph.D. or equivalent qualification and a strong research background in environmental engineering. Experience in one or more of the following specialty areas is desirable: aquatic environmental chemistry, development or application of environmental sensor technology, and environmental modeling.

The Department of Civil Engineering offers undergraduate B.S. degrees in civil engineering and environmental engineering and both M.S. and Ph.D. degrees with emphasis in environmental engineering. Duties will include undergraduate and graduate teaching and development of externally funded research activities. Salary will be consistent with the candidate's qualifications. The projected starting date is July 1, 2004. Funding is available for an initial appointment of 12 months. This is not currently a permanent position; continuation is contingent on funding and performance.

Interested applicants are encouraged to send a letter of application; curriculum vitae; research and teaching statements; and names, addresses, and telephone numbers of three references to: Dr. E. "Manos" Maragakis, Chair, Department of Civil Engineering, Mail Stop 258, University of Nevada, Reno, NV 89557-0152. Full consideration will be given to all applications received by March 1, 2004. EEO/AA.

Colorado School of Mines

FACULTY POSITION IN ENVIRONMENTAL SCIENCE AND ENGINEERING. The Colorado School of Mines (CSM) invites applications for an anticipated tenure-track faculty position at the associate professor level in the area of remediation science and engineering with a start date of the Fall 2004 semester. Outstanding candidates are sought with expertise in characterization and assessment of contaminated land and remediation technologies for restoration of contaminated sites. Individuals with interests and abilities in related areas such as mine land pollution prevention and reclamation, or waste reclamation using natural systems are also encouraged to apply. ESE has 9 tenure-line faculty, 15 adjunct faculty and research staff, 85 graduate students and 60 undergraduate students. Annual research expenditures are $2.5M. Current focus areas encompass water and waste reclamation and reuse, environmental chemistry and radiochemistry, environmental biotechnology, site characterization and remediation, and environmental systems modeling. ESE is located in Coolbaugh and Chauvenet Halls in which there are modern facilities, including traditional offices, classrooms, and bench-scale laboratories, along with state-of-the-art laboratories for water/waste treatment and remediation, environmental chemistry, biotechnology, and toxicology. Interested individuals are asked to visit http://www.is.mines.edu/hr/Faculty%20Jobs.shtm for more information about the position and instructions about how to apply. Evaluation of applicants will begin February 2, 2004. Further information about ESE may be found at www.mines.edu/academic/envsci/ while questions may be addressed to Dr. Robert L. Siegrist, Director, Environmental Science and Engineering (siegrist@mines.edu). CSM is an EEO/AA employer and is committed to enhancing the diversity of its campus community. Women, minorities, veterans, and individuals with disabilities are encouraged to apply.

Employment Opportunities

Duke University

FACULTY SEARCH IN ENVIRONMENTAL ENGINEERING. As part of the expansion of Duke University's Pratt School of Engineering the Department of Civil and Environmental Engineering (CEE) is projecting the addition of three to five new tenured or tenure-track faculty in environmental engineering during 2004 and 2005. The Pratt School of Engineering is growing into new laboratory and teaching facilities in 2004 and the size of the School's faculty is in the process of almost doubling. CEE expects to grow from 14 faculty in 2003 to 25 faculty when all searches are complete. The Department currently seeks candidates studying microbiological, chemical and physical processes in the context of pollution prevention, control and remediation in water, air and/or soil. We especially search for individuals who integrate basic processes into environmental engineering sensors and simulators. This search is directed at faculty candidates having different levels of research and teaching experience. Candidates from traditionally under-represented groups in engineering are especially encouraged to apply.

Applications must be submitted electronically to http://www.cee.duke.edu and include: 1) cover letter suggesting how the candidate complements the Department's current faculty and fits into the department's strategic vision as summarized at http://www.cee.duke.edu ; 2) curriculum vitae; 3) statement of research describing past, present, and future activities; (4) statement of teaching experiences and philosophies; and (5) names and all contact information for at least three references. Address all questions and comments to Professor Jeff Peirce, peirce@duke.edu.

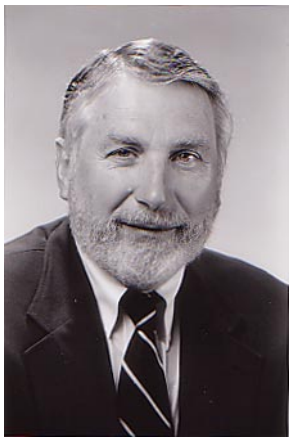
Michigan State University

POSTDOCTORAL POSITIONS TO DEVELOP DNA CHIPS FOR WATER SAFETY. We are looking for two post-doctoral research associates to join our multidisciplinary team engaged in developing various applications of DNA biochips for drinking water safety. Example applications include parallel detection of numerous pathogens relevant to water, evaluation of current and potential indicator organisms, microbial source tracking, and water quality assessment. Sample processing, target enrichment, and amplification strategies are an integral part of each application. The research will involve probe design, biochip validation for both synthetic and filed samples, and data processing. Applicants should have a Ph.D. degree in microbiology or environmental engineering with emphasis on molecular microbiology. Additional experience in biostatistics and microarray technology is highly desirable. The position is available for a two-year appointment beginning immediately. Applications (curriculum vitae, a summary of publications, research accomplishments and interests, cover letter, and full contact of three references) are encouraged by e-mail to Syed Hashsham (hashsham@egr.msu.edu), Department of Civil and Environmental Engineering and Center for Microbial Ecology or James Tiedje (tiedjej@msu.edu), Center for Microbial Ecology, Michigan State University, East Lansing, MI 48824.

Penn State Capital College, Harrisburg Campus

QUENTIN BERG UNIVERSITY CHAIR IN ENGINEERING. A tenure-track senior level position in the School of Science, Engineering & Technology for an individual with an outstanding record in interdisciplinary environmental practice, teaching and research to fill the endowed "Quentin Berg University Chair in Engineering" at Capital College effective Fall 2004 semester. The Penn State Institutes of the Environment provide a major contribution of funds for, and direction to, this position. Candidate must have expertise in one or more areas of sustainable systems engineering, green engineering, pollution prevention and/or industrial ecology. He/she is expected to lead the Capital College environmental initiatives and provide energetic leadership and coordination for green engineering research and teaching activities for the entire University. Teaching responsibilities include: green engineering at the undergraduate level, courses in his/her specialty area at the graduate level, related engineering and environmental courses as required, and developing new courses in appropriate areas. The successful candidate is expected to have an outstanding track record of leadership in green engineering, develop an externally funded research program, and supervise a diverse group of majors, including engineering, science, and business students. A Ph.D. with at least one degree in engineering or a related discipline is required. Potential backgrounds may include environmental, civil, architectural, mechanical, chemical, or electrical engineering with sustainable engineering as the primary research and teaching focus. Additional information for the College, Centers, and Faculty may be found at the Penn State Harrisburg web page and links at www.hbg.psu.edu/epc.

Applicants should submit curriculum vitae, names of three references, and a research and teaching statement immediately to: Berg University Chair Search Committee, c/o Mrs. Dorothy Guy, Director of Human Resources, Penn State Capital College, Box AEESP, 777 W. Harrisburg Pike, Middletown, PA 17057-4898. Alternatively, e-mail applications may be directed to Mrs. Dorothy Guy at djg1@psu.edu. **Nominations of individuals are welcome.** Applicant review will begin on March 22, 2004, and continue until the position is filled. Penn State is committed to affirmative action, equal opportunity, and the diversity of its workforce.


Aarne Vesilind

Book Reviews

by P. Aarne Vesilind, Bucknell University

Eleven Blue Men

Berton Roueché, Berkeley Medallion Books, New York, 1955

It's not often I review a book that is almost a half century old, and has been out of print for many years. But the recent incident in Beaver, PA (my home town!) with the green onions and hepatitis A reminded me of this classic. I have a copy, a paperback, and I see it is available on amazon.com, but at an exorbitant price, so I doubt if you would want to buy it. But if you ever see one in a used book store, or if your library has a copy, it is worth a read.

Roueché is a medical epidemiologist who also happens to be an excellent writer, and this book is a compilation of 12 stories of epidemiological sleuthing. Those of you who graduated from a public health school as I did might remember having to take a course in epidemiology. Was that ever a boring course! I remember trying our best to convince our faculty to remove this course from the list of requirements, but they stood firm. If we only had had a copy of ELEVEN BLUE MEN, we would have had a completely different notion of epidemiology.

The title comes from an incident in New York where the cops picked up eleven homeless people who had collapsed on the street. They were all very sick, and very blue. The doctors were baffled, never having seen anything like this before. It took a team of forensic epidemiologists to find the answer. I won't spoil the story by telling what the cause was, but the story is just fascinating.

I have used the stories in this book (including the infamous "Typhoid Mary" story) in my classes as examples of how public health officials conduct rational investigations, track down leads, and use their education to nail down causalities. These are great yarns, and I highly recommend the book to you.

Berton Roueché was a free-lance writer who originally published these articles in *The New Yorker*. He died in 1994.

— P. Aarne Vesilind

Manual of the Causes and Control of Activated Sludge Bulking, Foaming, and Other Solids Separation Problems

3rd Edition, David Jenkins, Michael G. Richard and Glen T. Daigger, IWA Publishing, London, 2004

At the beginning of one of the chapters, the authors quote President Franklin Delano Roosevelt: "But above all, try something".

I remember talking about bulking in a wastewater treatment plant class when I was in school, and the joke was: If you have bulking sludge, reduce the solids retention time. If that does not work, increase the solids retention time. If that does not work, increase the DO in the aeration tank. If that does not work, decrease the DO. If that does not work, decrease the hydraulic retention time. If that does not work, increase the …..and so on. In other words, push all the buttons you have, and above all, do something!

We have come a long way, baby, since those days. The book by Mssrs. Jenkins, Richard and Daigger is a superb summary of our knowledge of activated sludge biology and how this can be used to more effectively operate an activated sludge plant. The book is spiral bound, which is a great advantage, since the book will lay flat on a lab bench and allow for ready comparison of the results of microbial examination with the excellent color and black and white pictures in the book.

The first chapter covers typical separation problems, and clearly differentiates among the types of settling malfunctions such as dispersed growth, viscous bulking, pin floc, filamentous bulking, and foam/scum. The second chapter covers the microscopy of activated sludge and shows how such examinations are done, using a generous number of photographs. Chapter 3 covers the application of the results of microbial examinations, including David Jenkins' famous filament counting technique. Chapter 4 is devoted to settling problems with a solid discussion of the design of secondary clarifiers. Finally, Chapter 5 covers problems of foaming and its control. A totally excellent book that really makes me feel old when I calculate my age as a function of the advancements in our field.

David Jenkins is supposedly retired but ignores the fact and continues his work at the University of California at Berkeley. Michael Richard is with Sear Brown in Fort Collins, Colorado, and Glen Daigger is with CH2M Hill. He was recently elected to the National Academy of Engineering.

— P. Aarne Vesilind

When Smoke Ran Like Water

Devra Davis, Basic Books, New York, 2002

Who was your very best professor ever? Of all the perhaps hundreds of professors you had in undergraduate and graduate school, who stands out in your memory as the finest exemplar of the teacher/mentor/scholar? [After you have selected your finest professor, stop reading this review and if this person is still alive, write a short note to him or her. Just say that you are checking in, and describe a few things about your career and accomplishments. Indicate by some story or memorable quote that you remember the professor, and send along your best wishes. Then come back to reading this review]

I so often hear that student evaluations of professors are imperfect because the value of a professor changes with time. There are those who believe that the mean guys you hated, the guys who forced you to work hard, will turn out to be your most respected and loved professors in the end. I have always personally disagreed with this assumption. My best (and worst) teachers when I was in school remain my best (and worst) 40 years later. So it did my heart good to realize that there is experimental evidence to back up my observation.

One study found that there is no significant change in teacher ratings with time. Students asked 10 and 20 years after graduation to name their best instructors named the same instructors whom they rated highly while they were students. The tough instructors who had poor teaching skills regardless of how difficult their courses were were still rated poorly. In another study, when alumni were asked to describe their former professors, they told stories that illustrated the positive effect the teachers had on their lives. One alumnus, finishing his favorite story about his former professor, ended reflectively — "I miss him" he said – thirty years after graduation. (*J. Educational Psychology* 42(129-143), and *Change*, 28(6)).

The same thing applies to books. I remember hating some of my texts (Gaylord and Gaylord still holds first place as the worst textbook ever) and loving others. And the ones I love I still have. (Gaylord and Gaylord was ceremonially burned when I finished my last steel design course.) Occasionally I pick up one of my favorites, riffle through the pages, and remember how the text helped me understand the subject.

I think this book by Devra Davis is going to be one of those books to which I periodically return, both to enjoy her writing as well as to glean material for lectures. Davis is an environmental scientist and epidemiologist, and has had a distinguished career in and out of governmental service. She has been personally involved in many of the significant cases of public protection from environmental pollutants such as the elimination of lead from gasoline. But her most important attribute is that she was born in Donora, Pennsylvania, and spent her childhood in the shadows of the steel mills that lined the Monongahela River. She speaks in the first person about the fateful days in 1948 when an inversion layer capped the valley and the three plants continued to operate at full production. She has great pictures of the Friday night football game when the pollution was so thick the ball disappeared into the haze, and when it was not possible to see across the field. Some of her acquaintances were among the 27 people who died during this disaster which catalyzed the United States into controlling air pollution. And yet, when she was a little girl, nobody talked about the episode. Only when she went to college did she find out that the Donora Episode had occurred. Smoke was jobs and life to these first generation Americans, and they were not about to do anything that would force the steel plants to close, including talk about the week when smoke ran like water.

Using the Donora Episode as a jumping off point, Davis talks about other environmental problems, including growing concerns with breast cancer and male sterility. In my opinion, the best part of the book is at the end when she talks about some defiant figures in the quest for a clean environment — those unsung people who for years stood up to great pressures to do the right thing. All in all, this is a masterful book. I know I will visit it often, and that years from now I will think of it as highly as I do now, just after reading it. Good books, and good professors, tend to be that way.

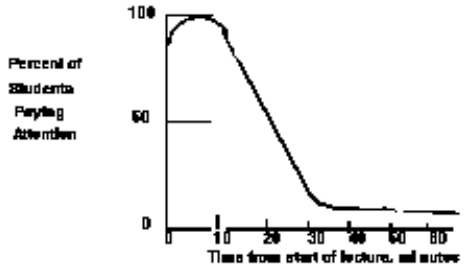
Devra Davis is now a visiting professor at the Carnegie-Mellon University's Heinz School in Pittsburgh.

— P. Aarne Vesilind

Urban Stormwater Management Planning

Barry J. Adams and Fabian Papa, John Wiley & Sons, New York, 2000

Of all the problems with the lecture method of instruction, the most important is limited attention span. Multiple studies have shown that the percent of students in a typical classroom that are paying attention follows the graph below:



During the first few minutes of class some of the students are still getting organized and some are late arriving. At about 10 minutes into the lecture almost all of them are listening. But then the depressing depression. At 30 minutes fully 85% of the audience is lost. (Most professors of course deny that this applies to **their** classes). After 30 minutes most students are no longer listening! At the end of a 75-minute lecture essentially nobody is paying attention. Research has shown that students retain about 70% of the material during the first 10 minutes of a lecture, and only 20% of the material during the last 10 minutes of a lecture. If you don't believe this is true, time yourself at the next departmental seminar. I bet your mind will "doze off" at around 25 minutes and you will catch yourself thinking of something else. The lesson is clear. Break up your lectures into "attention units", typically around 20 minutes, punctuated by quizzes, video tape segments, demonstrations, or some outrageous behavior.

I believe the same kind of problems with attention spans is true with stormwater management. People simply "doze off" when skies are blue and there is no need for storm sewers. It is the job of people like Barry Adams and Fabian Papa to insist that planning of stormwater control is important even when it is not raining.

Their book begins with an introductory chapter on urban draining and the problems associated with runoff. The second chapter is on the quality of urban runoff, a surprise to most students who consider runoff as simply water and are impressed that the first rush of runoff is not unlike raw sewage. The third chapter is on urban stormwater management modeling, and includes several excellent case studies. The second part of the book is on data analysis including meteorological data and runoff data. The last section looks at drainage system performance analysis including optimization and sensitivity analysis. All in all it's a very fine effort, with carefully drawn graphics and logical organization. We all should be glad that people like the authors don't "doze off" and continue to push for planning of urban drainage systems.

Barry Adams is at the University of Toronto, and Fabian Papa is a civil engineer with Valdor Engineering, Inc. of Woodbridge, Ontario, Canada.

— P. Aarne Vesilind

Call for Papers

Five Special AEESP-ACS Symposia

228th ACS National Meeting
August 22-26, 2004
Philadelphia, PA

Division of Environmental Chemistry
228th American Chemical Society (ACS) National Meeting
For more detailed descriptions and abstract submission instructions, please contact the session organizers or check the AEESP website (www.aeesp.org).

1) Particles and Interfaces in Aquatic Systems: A Symposium in Honor of Professor Charles R. O'Melia. This symposium will honor Professor Charles O'Melia for his many contributions to research and education in environmental engineering and aquatic chemistry. The symposium will focus on colloidal and interfacial processes in natural and engineered aquatic systems. Subjects of interest include any environmentally relevant topic involving particles and surfaces in aquatic systems, including stability and aggregation of aquatic particles; coagulation of natural organic matter; particle removal processes (*e.g.*, media and membrane filtration, sedimentation, flotation); colloid deposition, detachment, and transport; colloid-facilitated transport of contaminants; microbial transport and adhesion; characterization and analysis of aquasols; and reactions at the solid-water interface. The symposium is tentatively planned to span 2.5 days. The first half-day of the symposium will include the following invited speakers: James Edzwald (University of Massachusetts), John Gregory (University College London), Desmond Lawler (University of Texas), James Morgan (Caltech), Jerald Schnoor (University of Iowa), Philip Singer (University of North Carolina), and Walter Weber (University of Michigan).
Organizers: Menachem Elimelech (menachem.elimelech @yale.edu), John E. Tobiason (tobiason@ecs.umass.edu) and William P. Ball (bball@jhu.edu).

2) Oxidation and Reduction Technologies for Water Treatment. The subject of this symposium will be the treatment of water using Oxidation and Reduction Technologies. The symposium will focus mainly on physical chemical technologies (both *in-situ* and *ex-situ*) including Advanced Oxidation Technologies (AOTs) (Fenton, Photo-Fenton, UV and solar photocatalysis (i.e., TiO_2), H_2O_2/UV, ozone-based technologies, sonolysis, electron beams, supercritical water oxidation, and transition metal-based catalysis), Electrochemical Technologies, and Chemical Oxidation (i.e., H_2O_2, permanganate, chlorine, and chlorine dioxide). Alternative novel technologies with emphasis on "Green" Chemistry and "Green" Engineering are also of interest to this symposium. Papers on such technologies that involve the use of nanomaterials and nanostructures are encouraged. Papers that couple Oxidation and Reduction Technologies with other technologies (i.e., adsorption, membranes, disinfection) are also relevant.
Organizers: Dionysios D. Dionysiou (dionysios.d.dionysiou @uc.edu), Linda K. Weavers (weavers.1@osu.edu) and Wonyong Choi (wchoi@postech.ac.kr).

3) BioEnergy Production: BioHydrogen and Electricity Generation Using Microbial Fuel Cells. The production of energy from organic matter present in wastewater is a new and exciting area of research. Microbial fuel cells (MFCs) that achieve direct electron transfer from bacteria to an electrode show great promise as a new method of using bacteria to make electricity from the oxidation of organic matter. Our session will include MFCs and characteristics of metal-reducing bacteria that can grow in MFCs, along with studies on biological energy production in the form of hydrogen and methane gases.
Organizers: Bruce Logan (blogan@psu.edu) and Thomas Mallouk (tom@chem.psu.edu).

4) Environmental Fate and Treatment of Persistent Halogenated Compounds. Chlorinated dibenzo-*p*-dioxins and dibenzofurans, polybrominated diphenyl ethers, polychlorinated biphenyls and fluorinated alkyl surfactants are examples of persistent halogenated compounds. These and similar compounds can be carcinogenic and estrogenic and may accumulate in soils, sediments, and biosolids, constituting a major threat to human and ecosystem health. We are offering this special AEESP-ACS session that will focus on recent advances in better understanding the fate of these compounds in the environment. We also welcome papers that apply this understanding to the development of remediation and treatment technologies.
Organizers: Donna E. Fennell (fennell@envsci.rutgers.edu) and Paige J. Novak (novak010@tc.umn.edu).

5) Innovative Approaches to the Remediation of Subsurface Contaminated Hazardous Waste Sites: Bridging Flask and Field Scales. Subsurface contamination continues to be one of the most challenging problems in the environmental field today. Various forms of contamination below the ground surface threaten not only ground water, a major source of drinking water, but also, agriculture and aesthetic needs as well. Development of innovative chemically and biologically based technologies for removing environmental contaminants from soil and ground water is a critical step in the effort to remediate the nation's hazardous waste sites. Field demonstration of these technologies is a key step in their development, however, only after successful scale-up from laboratory testing. This session seeks participation by researchers who have linked laboratory- and field-scales in efforts to find creative, cost-effective methods for successful remediation of contaminated soil and ground water.
Organizers: Clayton J. Clark II (clark@ce.ufl.edu) and Angela Lindner (alind@eng.ufl.edu).

Call for Papers

PCBs in Freshwater and Marine Sediments: Transport, Transformation, and Treatment

228th ACS National Meeting
August 22-26, 2004
Philadelphia, PA

Division of Environmental Chemistry
228th American Chemical Society (ACS) National Meeting
Despite 30 years of investigation, the contamination of waterways with polychlorinated biphenyls (PCBs) remains a pressing environmental challenge. This symposium will bring together scientists and engineers to present developments in research on chemical and biological transformations of PCBs in sediments, processes governing transport in and release from sediments, and innovative approaches for management of PCB-contaminated sediments.

Presenters are required to submit a **short abstract** to ACS by **April 12, 2004** using the ACS online system (OASYS) at http://oasys.acs.org/, and an **extended abstract** of two or more pages to the symposium organizers by **April 19, 2004** using the instructions posted by the Environmental Chemistry Division at http://www.envirofacs.org. Please submit the extended abstract as an attachment to e-mail in MS Word or RTF file format, and label the abstract file with the ACS abstract number and the first author's last name.

Symposium Organizers:
David Dzombak and Greg Lowry, Carnegie Mellon University, Department of Civil and Environmental Engineering, Pittsburgh, PA 15213. Phone: (412) 268-2946 (Dzombak), (412) 268-2948 (Lowry); Fax: (412) 268-7813; Email:dzombak@cmu.edu, glowry@andrew.cmu.edu.

49th Annual Institute in Water Pollution Control

June 7-11, 2004
Manhattan College
Riverdale, NY

Manhattan College's forty-ninth annual Institute in Water Pollution Control will take place June 7-11, 2004, at Manhattan College, Riverdale, New York. The two courses offered, which run concurrently, will be:

Water Quality Modeling

- Nutrients
- Phytoplankton Dynamics
- Sediment Diagenetic Reactions
- Sediment Flux Modeling
- Fate and Bioaccumulation of Toxic Organic Contaminants
- and much more

Treatment of Wastewater

- Nutrients
- Toxics
- Biosolids
- Optimization
- Reuse
- Odor/Air Pollution Control
- Biological and Fixed Film Technologies
- Disinfection
- Phosphorus Removal
- and much more

These weeklong courses have much to offer young engineers, scientists, and seasoned professionals who have not been able to stay abreast of the rapidly changing field. Set in a classroom atmosphere, the courses allow for dialog between lecturer and participants. Each course is worth 3 Continuing Education Units (CEUs). The fee per course is $1,400 and includes a set of notes for each attendee.

If you would like a brochure or any additional information, please contact:
Ms. Theresa Hage, Program Coordinator
Manhattan College
Environmental Engineering Department
Riverdale, NY 10471
Phone: (718) 862-7276
Fax: (718) 862-8018
E-mail: theresa.hage@manhattan.edu

Workshop on the Economic and Environmental Impacts of Bio-based Production

June 8-9, 2004
Chicago, IL

The Institute for Environmental Science and Policy at the University of Illinois at Chicago is sponsoring a workshop to address life cycle and economic issues surrounding bio-based production. It will be held June 8-9, 2004 in Chicago, Illinois. Thought-provoking presentations will be interspersed with interactive sessions whose aim is to bridge across disciplinary boundaries. Traditional analysis of products created from renewable feedstocks has focused primarily on the scientific and technical aspects. In this workshop, emphasis will be placed on the inclusion of economic and policy issues and how these elements inform, and in turn, are informed by scientific and technical findings. The overall goal of the workshop will be to

continue to expand the dialogue on bio-based production in the research and business community, and to seek a synthesis among these areas.

Workshop registration is complimentary to registrants, however there is an enrollment quota. Those interested in attending are asked to complete an application. Limited financial support is available to defray transportation and lodging. Additional workshop information, including speakers, agenda, and online application can be found at www.iesp.uic.edu.

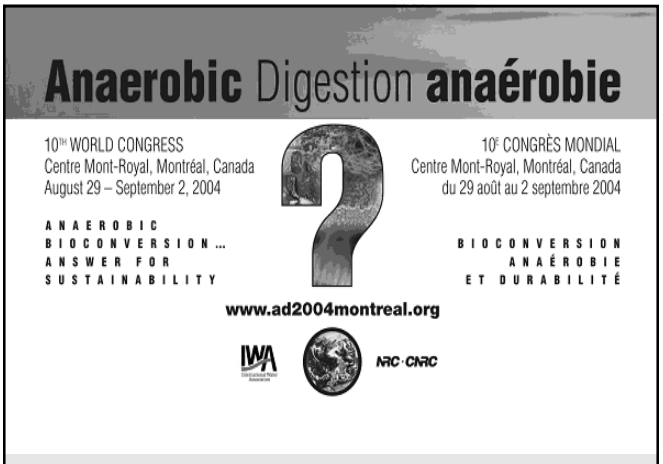
78th Meeting of the American Chemical Society's Colloid and Surface Science Division

June 20-23, 2004
Yale University
New Haven, Connecticut

The 78th meeting of the American Chemical Society's Colloid and Surface Science Division will be held June 20-23, 2004, at Yale University in New Haven, Connecticut. The meeting will consist of technical sessions organized around 11 broad topics, ranging from such traditional topics as Colloidal Dispersions, Self-Assembling Systems, and Dynamic Behavior of Complex Fluids, to more "novel" and timely sessions in such areas as Synthesis and Applications of Nanoparticles and Nanostructures, Aerosol Science and Technology, and Microfluidics. The symposium will also have sessions devoted specifically to all aspects of colloidal and interfacial behavior in environmental systems.

New Haven is a vibrant town with many cultural attractions, essentially centered around Yale. These include museums, theaters, and numerous outstanding restaurants. In addition, each year the city hosts a two-week International Festival of Arts and Ideas, which features numerous performances in music, dance, theater, visual arts, etc. The 2004 Colloid and Surface Science symposium will coincide with this festival.

Specific information about the symposium, including abstract submissions and registration, will be available at http://www.eng.yale.edu/ceweb/colloids/2004.htm. Alternatively, feel free to contact either Professor Menachem Elimelech (menachem.elimelech@yale.edu) or Professor John Walz (john.walz@yale.edu), who will be hosting the symposium.



Anaerobic Digestion
10th World Conference

August 29-September 2, 2004
Montréal, CANADA

Topics: Bacteriology, biochemistry and microbial ecology of anaerobic bioprocesses; Anaerobic immobilization and granulation; Technology development, evaluation and monitoring; On-site applications; Modeling and on-line control; Anaerobic treatment of wastewaters, sludge and solid wastes; Anaerobic bioremediation; Pre- and post-treatment systems; Biogas utilization; Policy & financial aspects; AD potential in the context of sustainable development and energy.

Arrangements to encourage students to present their work: registration fees reduced to Cdn $500; three awards for best student presentations. Abstracts (for posters only) close on February 15, 2004.

Submit online - **www.ad2004montreal.org**

WORKSHOPS — Managing manure and compatible co-substrates using an agricultural based treatment system — Organic Municipal Solid Waste Management: Landfills vs. Bioreactors — Strategies for a stronger integration of AD in decision-making.

NOTE: The AEESP membership application is also available online at **http://www.aeesp.org/org/membership.html**.

Application for Membership

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PLEASE ATTACH A BRIEF (1-3 PAGE) CURRICULUM VITAE

Membership in AEESP is on a calendar-year basis. When you join the Association, you will be sent the current AEESP Membership Directory and previous Newsletters and other materials which have been sent to members during the year, if your application is received prior to October 1. If you join after October 1, your membership will begin the following calendar year, but the current AEESP Membership Directory will be sent to you immediately upon approval of your membership by the Association's Secretary. Upon retirement, members may apply to the AEESP Board for Emeritus membership if they have been AEESP members for at least 20 years, or have been a member for fewer years but have contributed substantially to AEESP through service on committees or as an officer.

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The *AEESP Newsletter* is published three times a year in January, April and September by the Association of Environmental Engineering and Science Professors. Issues are published online at **http://www.uidaho.edu/aeesp**.

Please send submissions and comments to the editor:
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To estimate the amount of lead time needed for your announcement, please note that members receive the newsletter 4-6 weeks after the submissions deadline.

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