

UML Shuttle

A PUBLICATION OF THE UNIVERSITY OF MASSACHUSETTS LOWELL

Crime and the Community: for Jim Byrne, the Nexus That Has Driven a Career

Byrne, in Los Angeles, Speaks on Prison Violence

It was as a college student running a drop-in center for neighborhood kids in Worcester, more than 30 years ago, and later teaching at an alternative school, that Jim Byrne first began to develop the conviction that has guided his career: that violence in a community can better be addressed through the informal controls that exist on the street than by anything the police or mayor can do.

"I was a VISTA volunteer, going to classes and working, putting in 75 hours a week for \$45 plus food stamps. And I began to see it right there. The social factors—jobs, wages, teachers, the neighborhood—that's what really made the difference. Everybody has somebody they don't want to let down. It might be a teacher, a parent, a proba-

tion officer. And that's the person—the person in the community, or the community itself, but not the cops or the authorities—who are going to be the biggest factors in controlling the level of violence and crime."

It is a new millennium now, and a vastly different world—but the message hasn't changed. "Researchers studying community-level violence have consistently found that gang influence appears to be strongest in areas where informal social controls are weakest," Byrne told an audience in Los Angeles last month.

The occasion was the annual meeting of the Commission on Safety and Abuse in America's Prisons. Byrne, a UMass Lowell professor of criminal justice since 1984, had been invited as a panel member to address the issue of gang violence in prisons. While much of his address was devoted to a summation of an initiative by the National

Institute of Corrections to improve prison conditions, at the core of his message was this same, career-long theme of a crime-community symbiosis. Since the vast majority of offenders in prison are going to return to the community at some point, he argued, whatever they experience in prison is likely to spill over after they're released. Or, more specifically:

"It appears that a prison 'culture' that supports the situational use of violence to maintain order may reinforce the community 'culture' that offenders experience both before going to prison and after release...We have a mounting body of evidence that in prisons—as in our communities—informal social control mechanisms are more effective than formal social control mechanisms in reducing levels of violence and disorder. The Commission needs to consider strategies for strengthening these..."

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For Tsongas Center Displays, Students Step Up the Effort

Each fall semester, 300 students take the Introduction to Engineering course.

They don't know much—yet—but the learning is intense, as Prof. David Kazmer, plastics engineering, guides them through the basics and beyond, into a fully-realized service learning project.

"There are two sides to good engineering," says Kazmer. "First is the analysis—understanding how things work. Second is the synthesis, in which you invert the analysis to solve open-ended questions, in which the problems are not well formed."

"Normally students wait until their junior or senior year for the first opportunity to design, build and test systems."

Instead, the students in the Intro class are faced with two design/build/test challenges. The three-student teams deal with a structured project first, with a specific objective and provided materials: to reach optimization (load divided by weight) of a bridge design.

"Working on this project, the students learn typical engineering analysis and also begin thinking about risk," says Kazmer. "Having the structured project first helps them prepare for the service learning task."

The Tsongas Industrial History Center is the service learning project client. Staff helped shape the requirements—to produce an interactive exhibit about an engineering technology that will "delight and enlighten" young visitors. The exhibits will be installed in the Center's cafeteria and main lobby.

With 100 projects to shepherd through the stages, everyone involved worked long hours. Kazmer, who works with two teaching assistants, estimates he spent a hundred hours on the service learning assignment. Tsongas Center staff did all the judging—first in screening rounds to choose about 30 semifinalists, then to select the 12 exhibits. The judges were

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Tsongas Center Wins NEH Grant

Marks First NEH Grant in UML History

UML's Tsongas Industrial History Center has received a \$224,000 grant from the National Endowment for the Humanities to fund a summer program for teachers, education administrators and personnel from around the country. The award marks the first NEH grant in UML's history.

The Tsongas Center encourages hands-on history teaching to over 60,000 students annually. It is a collaborative project of UML's Graduate School of Education and the National Parks Service at Lowell National Historical Park.

With funding from the grant, the Tsongas Center will host three week-long summer workshops for educators titled "Inventing America: Lowell and the Industrial Revolution." The

workshops will combine scholarly presentations with on-site investigations of the canals, mills, and worker housing. In addition to the landmarks of Lowell, the program will also conduct field studies at Old Sturbridge Village, Walden Pond, and Concord, MA museums.

According to Sheila Kirschbaum, coordinator of the Inventing America: Lowell and the Industrial Revolution

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▲ Staff from the Tsongas Center prepare for this summer's NEH workshops, from left, Sheila Kirschbaum, program coordinator, Ellen Anstey, administrative assistant, MaryBeth Clark, park ranger, Sheli Turocy, project assistant, and Peter O'Connell, director.

NSF Funds Conference on Two Generations of Research

CWW Will Review Findings on Work Environments for Women in STEM Fields

The Center for Women and Work (CWW) at UMass Lowell has received a two-year, \$200,000 grant from the National Science Foundation to organize, conduct and publish proceedings of an innovative conference scheduled for April 2007. The conference, titled Working WISE (Women In Science and Engineering), will focus on two generations of research conducted on work environments for women in the fields of science, technology, engineering and mathematics (STEM).

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IN OTHER NEWS

The Ombuds Solve Problems— Alan Lincoln says that after five years as problem solver, the biggest question is always, "What's an ombuds?"

Good Morning, Bruce Jackson—ABC's Good morning America interviews Asst. Prof. Bruce Jackson about his genealogy research on African-Americans.

Frightening Laboratory Work—Wang School students create scary Halloween creatures in Doug Prime's Design Laboratory.

To see these and other stories, go to UMass Lowell's new online eNews Web site at www.uml.edu/enews

Robots Bring Two Disciplines and Two Sides of the Campus Together

Science and Design Collaborations Showcased in February Exhibit

What do computer science and design students have in common? Robots, trees and pop-up books.

For the second year, Computer Science students in Asst. Prof. Fred Martin's computer science class were teamed with students from Asst. Prof. Karen Roehr.

Three-student teams—two to three designers and one scientist—worked on each robot. CS students created fully autonomous machines able to collect pastel eggs and avoid black ones. Design students created flyers advertising the competition and logos, posters and brochures supporting their robot. Two egg hunts were held in the fall. Robots and promotional materials were exhibited at the Dugan Gallery in February.

Roehr and Martin's combined statement on the benefits of the project noted that it "allowed students access to creative aspects of an entirely different discipline. The computer students saw their robots advertised with branded identity. The design students had the chance to work with real clients balancing artistic integrity with client input."

The Dugan Hall exhibit also showcased a series of pop-ups developed in a second CS-Graphic Design collaboration. A student worked with the idea of creating interdisciplinary

nary teams to explore the mathematical representation of repeating forms and the aesthetic possibilities of algorithms. Student Xuan Diep developed software that guided a laser cutter to create two-dimensional perforated paper cutouts folded to form three-dimensional pop-ups. The designs are being developed into a limited edition of pop-up books.

This project was supported by a seed grant from the Council on Teaching and Learning.

"We used the tree as a metaphor in this project," says Roehr. "An artist may look at a tree for its inherent beauty, unaware that the tree is an example of a fractal—each part that grows from the base resembles the base."

"In computer science," Martin said, "software applications and computer output are widely used, but students do not often explore the aesthetics of algorithms. In this project, we asked them to express fractals visually."

Roehr and Martin's goal was to build common ground between science and design students. Their joint statement describes their intention to help "students to recognize the interdependence of art and science, and how their practice can inform the work of the other, enhancing creative possibilities."



▲ Karen Roehr, assistant professor of Graphic Design, stands with her student Andrew Eckstrom, a member of the students team that created a logo, brochure and poster for "Superbot."



▲ Computer Science student Michael Howlett looks over the robot he helped design and build with Assistant Professor of Computer Science Fred Martin.

Campus to Host NIOSH Town Meeting

UML's is One of Thirteen Nationwide

UMass Lowell is one of thirteen sites nationwide hosting a National Institute for Occupational Safety and Health (NIOSH) town meeting to let the federal agency know what issues matter in this part of the country, in order to guide the agency's national research agenda.

The meeting will be held in the MIL Conference Room, Wannalancit, on March 20, 9 a.m. to 12 noon and 1 p.m. to 5 p.m. Dr. John Howard, NIOSH director, will be attending. Area members of Congress and other officials have been invited. Participants

will also include health and safety researchers, employers, workers, health professionals, professional associations, organized labor representatives.

The agency is gathering input for its National Occupational Research Agenda (NORA), a framework which will guide occupational safety and health research for the nation. Its aim is to reduce work-related injury and illness.

The event is sponsored by UMass Lowell and the Harvard School of Public Health Occupational Health Program's Education and Research Center. For more information, contact Petra Miesmaa, 978-934-4428, petra_miesmaa@uml.edu

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For Tsongas Center Displays, Students Step Up the Effort

Dr. Beverly Perna, Dr. Timothy LaVallee, Ranger Erica Foss and Martha Barrett.

A grand celebration was held at the Tsongas Center to display and demonstrate the winning designs. The highest-scoring project was a functioning dam model, built with the help of donations from local businesses, that Center staff estimated would have cost nearly \$10,000 to have had professionally produced.

"The premise of service learning is to increase motivation and deepen learning," says Kazmer, "and this

project was very effective for committed students. A few would have preferred a different type of product, but the projects themselves embody the fundamental course concepts."

Some real-world lessons were hard to accept: Judges were not always consistent with one another and some outstanding projects were overlooked or rejected. Without materials provided, students scrambled for supplies and, says Kazmer, "We need a central product realization lab with the machinery needed for building prototypes."

One outcome was especially gratifying for a professor—student grades have improved over the three years Kazmer has taught the course, while the material is just as difficult and the grading policies are even more stringent.

Kazmer will present a paper about integrating service learning into the introductory course at the annual conference of the American Society for Engineering Education.

—SS



▲ Dr. Beverly Perna checks out a winning exhibit designed and built by students in the Introduction to Engineering course.

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Crime and the Community: for Jim Byrne, the Nexus That Has Driven a Career

This—the nexus between violence and the community—has been at the heart of Jim Byrne's life work since he graduated from UMass Amherst with a B.A. in Sociology in 1977, then from Rutgers with his Ph.D. in Criminal Justice. His publications began in 1986 with "The Social Ecology of Crime," co-authored with Harvard's Robert Sampson, and have included half a dozen books and dozens of articles and book chapters on a myriad of matters—sentencing, child detention, vandalism, crime and technology and

many more—though somewhere near the core of most of them is the broad issue, as Byrne likes to put it of "the community context of crime."

Prof. Byrne is currently at work on a new text, "Violence in America: Causes, Prevention Treatment and Control," co-authored with UMass Lowell Criminal Justice Department Chair Eve Buzawa, as well as an edited collection, "The New Technology of Crime, Law and Social Control."

—GD

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Tsongas Center Wins NEH Grant

program, the historic buildings and artifacts of the Lowell National Historical Park are ideal vehicles for exploring American history and Lowell's part in the Industrial Revolution. "Through the sites and hands-on activities here, the scholarly presentations and field trips, teachers will learn about history where it happened," she says.

The grant is part of NEH's "We the People" project, which promotes the teaching, study and understanding of American history and culture through the exploration of significant events and themes in American history.

The Tsongas Center is currently accepting applications from educators around the country. Participants will receive a stipend to cover housing and meals with travel assistance available on a case-by-case basis. Space is limited and the application deadline is March 15, 2006.

For more information on the workshop or registration, visit: www.uml.edu/tsongas/NEH.

—JH

UMass Lowell, Four Others, Join Forces to Advance the Region's Growth

New Partnership Formally Cements Initiatives, Partnership Already in Place

Northeastern Massachusetts' five public higher-education institutions, including UMass Lowell, have formally joined forces in a partnership to advance the economic and cultural growth of the region.

The newly-formed alliance, edlink, announced Feb. 16 by the presidents or chancellor of North Shore Community College, Middlesex Community College, Northern Essex Community College, Salem State College and UMass Lowell, will combine the resources of the five institutions—which together enroll more than 40,000 students and employ roughly 5,000 people—to address the region's opportunities, problems and challenges. Since each of the five already boasts a long history of academic training and achievement, as well as a background of collaborative ventures with the region's school systems and employers, the new partnership cannot help but benefit the area and its workforce.

"This is a proud moment in the history of our region and of our respective institutions," said UMass Lowell Chancellor William T. Hogan. "Each of us has been working for years, both separately

and together, to increase the means to advance the growth of our region. The creation of this partnership can only add to the weight and pace of this effort."

The leaders of the five institutions—Presidents Wayne M. Burton (NSCC), Carole A. Cowan (MCC), David Hartlebb (NECC), Nancy D. Harrington (SSC) and Chancellor Hogan—will personally form the leadership of edlink, whose mission, they say, will be advanced through a blend of collaborative forums, targeted educational programs, research initiatives and public higher-education advocacy.

The individual and collective efforts of the five institutions are already impressive—including partnerships and initiatives in the areas of business planning, health-care, commercial development, mental retardation, literacy, service learning, technology advancement and literally scores of others—and were cited by the five leaders in their formal announcement of the partnership.

"We look forward to working with regional leaders to achieve our common vision," they announced in a collective statement. "Together, we can help create a positive environment that promotes innovative solutions to regional concerns."

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NSF Funds Conference on Two Generations of Research

CWW Will Review Findings on Work Environments for Women in STEM Fields

Participants in the conference will be drawn from two cohorts who have conducted research on women's success in STEM fields: scholars whose research emerged in the 1960s and 1970s and younger scholars who began their work in the 1990s. The conference is intended to foster intergenerational, interdisciplinary dialogue on this area of scholarship, comparing research themes, evaluating findings and developing a set of potential research questions to guide future work.

Principal investigator for the grant is Dr. Paula Rayman, professor, Regional Economic and Social Development Department and CWW senior associate. Co-Principal Investigator is Dr. Meg Bond, professor, Psychology Department and director of CWW. Maria Brunette, adjunct professor, Work Environment Department and a CWW associate, will serve as consultant to the project. Christina Bermingham is project manager for Working WISE. Marion Muskiewicz, science librarian at UML, is conducting the initial research phases of the project.

"At this critical economic time in our nation's history, we need to invest in all the talent we can to stay competitive in science and technology. Women have traditionally been under-represented in STEM fields," says Rayman. "This gathering will give us the chance to compare and contrast research themes and findings over time and to see if the under-representation may have changed and why or why not."

"This project also provides a great opportunity to address another challenge we face nationally—bridging the hard sciences with social sciences," Rayman continues. "The conference will look at research primarily conducted by social scientists about science and technology. We will be able to identify new ways for these two investigative communities to advance our common understanding."

The conference planning process will include the review and selection of participants and research themes, but project leaders anticipate that conference themes may include gender role socialization and stereotyping, isolation and forms of discrimination faced by individual women, a work culture in conflict with work-family patterns most often adopted by working

women, and workplace policies and the organization of work.

At the project launch event in February, Provost John Wooding congratulated the team on the role their work will play. "It's the responsibility of universities to stand up for what is right in the world. We must work on not just academic issues, but on the real issues of the world."

"Our work on this project is aligned with the national agenda," said Rayman. "And indeed, in the President's recent State of the Union address, he referenced a congressional report, 'The Gathering Storm,' which defined the ways in which this country needs to do a better job of attracting diverse talent into STEM fields in order to be competitive in a global economy. 'The Gathering Storm' reiterated the conclusions of an earlier report, 'The Quiet Crisis,' which Rayman co-authored."

The Center for Women and Work is an innovative center devoted to addressing the gendered conditions of work. The Center has a significant history of supporting research on women in science and technology and already brings a multi-generational and interdisciplinary approach to the study of women and work.

CWW will be assisted in its Working WISE research review and conference preparation by a campus Advisory Board. Members include Chancellor William T. Hogan (honorary); Provost John Wooding; Vice Chancellor Administration & Finance Louise Griffin; Assist. Prof. Alkim Akyurtlu, Electrical Engineering; Lenore Azaroff, Research Faculty, Work Environment Department; Judith Boccia, Director, Center for Field Services; Assoc. Prof. Julie Chen, Mechanical Engineering; Prof. Georges Grinstein, Computer Science; Marion Muskiewicz, Science Research Librarian, UML Libraries; Assoc. Prof. Margaret Quinn, Work Environment Department; Assist. Prof. Juliette Rooney-Varga, biology; Dean John Ting, College of Engineering and Assist. Prof. Holly Yanco, computer science.

—EJ



▲ Working WISE conference organizers include, from left, Marion Muskiewicz, science librarian, UML Libraries; Psychology Prof. Meg Bond, director of CWW; Christina Bermingham, project manager; RESD Prof. Paula Rayman, CWW senior associate; and Mohamed Abdullahi, project research assistant.

Major Deal — Kerouac Writer in Residence Jackson Brings the Beat to UML

Professor Receives Peer Praise

African-American poet Major Jackson will be spending this semester on campus as the Kerouac Writer in Residence. He is the author of two collections of poetry, "Hoops" and "Leaving Saturn," winner of the 2000 Cave Canem Poetry Prize and finalist for the National Book Critics Circle Award. He has been nationally recognized by The Boston Globe, Christian Science Monitor, and the Philadelphia Inquirer, and was a recipient of a Whiting Writer's Award.

Jackson lives in South Burlington Vermont, but will be living in the Lowell area for the semester as he teaches Creative Writing: Poetry to UML English students. He is an Associate Professor of English at the University of Vermont, a faculty member of the Bennington Writers Seminars and a Witter Bynner Fellow for the Library of Congress. Writer David Mills of The Boston Globe wrote in 2002 that "part of Jackson's savvy is that he pacifically renders his potentially unnerving inner-cityscapes in both formal and free-verse environments."

UML Campus Transformation Project

The Advising Team explores innovative advising practices to improve faculty-student experience. To read the whole story, go to www.uml.edu/eNews for the second installment in a series on the Transformation teams' efforts.

Editors Discuss Academic Publishing at Conversation Dinner

On average a scholarly book will sell only about 500 copies, according to Susan Bielstein, executive acquiring editor for the University of Chicago Press. This is not good news for faculty looking for opportunities to publish. Bielstein accepts only 1 percent of 1,500 book proposals each year and sales of academic works continue to decline.

Bielstein was joined by Nancy Blaine, senior editor at Houghton Mifflin's college division, and Kevin Sullivan, acquisitions editor for nursing at Jones & Bartlett for a Conversation Dinner on "Academic Publishing: What You Ought to Know."

Christopher Carlsmith, assistant professor of history, organized the event, with the help of Michael Millner, assistant professor of English. The Office of Research Administration sponsored the dinner through its Scholarly Research Forum, a new initiative for junior faculty developed by Dr. Gregory DeLaurier.

The three editors spoke before a large audience of faculty on the current state of affairs and future directions in academic publishing, as well as on the nuts and bolts of getting an academic book published. Earlier in the day, both Bielstein and Blaine met with individual faculty members to discuss their book projects.

Bielstein, who specializes in works on art, architecture, classical

studies and film, offered many reasons for the decline in sales of scholarly books. Chief among these is the slashing of university library budgets; university libraries simply cannot buy as many scholarly books as they once did. Also, many publishers are cutting back on the subject areas in which they publish.

Blaine offered a more upbeat message. The textbook market offers many opportunities for the right author with the right book and Blaine travels often to college campuses to speak with faculty about new directions in their fields. She looks for authors with a passion for teaching, a clear ability to write and a strong rationale for why their textbook should be published. Writing a textbook can be both lucrative and influential to generations of students, she concluded: "After all, one million college students a year in take an Introduction to U.S. History course."

Sullivan also had positive comments and advice. Nursing and related health fields are drawing more and more students, as a serious personnel shortage continues. He is interested in general textbooks for introductory courses, more specialized texts for graduate courses, as well as clinical handbooks. He warned that the focus of a proposed textbook should not be too narrow, as is often true with dissertations, and the author should consider including the work in a larger project.

Following their panel discussion, Sullivan, Blaine and Bielstein joined the audience for dinner and continued to offer straight talk and concrete advice, both of which were most welcome by the faculty attending.



▲ Dr. Gregory DeLaurier, Office of Research Administration; Louise Griffin, vice chancellor for Finance and Administration; Nancy Blaine, senior editor, Houghton Mifflin, college publishing division; Kevin Sullivan, acquisitions editor for nursing, Jones & Bartlett; Susan Bielstein, executive acquiring editor, University of Chicago Press; Asst. Prof. Michael Millner, English; and Asst. Prof. Christopher Carlsmith, History Department, lead organizer of the conversation dinner on academic publishing.

Davis Foundation Gives \$200,000 for Learning Assessment Technology

College of Management to Use Grant for Training Programs, Web Development

The College of Management recently received a \$200,000 grant from the Davis Educational Foundation to expand the use of technology in the assessment of student learning across academic disciplines. The grant will fund a project that will use UMassOnline's WebCT course management system to clearly link course-level activities and assignments to program- and institutional-level learning outcomes.

Spearheaded by Profs. Luvai Motiwalla and Steven Tello, along with Dean Kathryn Carter, the two-year project will develop a learning outcomes and assessment training program for multi-disciplinary faculty; create a summer training program to assist faculty in integrating program-level learning outcomes and assessment procedures into their on-campus courses; develop 12 hybrid course websites in WebCT that integrate course learning outcomes and electronic assessment procedures; and integrate an electronic reporting process into the WebCT installation to help in the collection and reporting of course-level data.

The current process of monitoring the integration and achievement of learning outcomes within courses and degree programs is typically a labor intensive, paper-based process often driven by accreditation visits and timelines. While assessment as a tool for improving student learning and educational programs offers great promise, existing processes for analyzing and summarizing data is limited. The ability of WebCT to electronically store student responses to homework assignments, exams and projects provides an opportunity to electronically retrieve and report on student progress in achieving course and program learning outcomes.

Faculty participating in this project will receive training, technical support and the equipment required to develop new online assessment materials. Preliminary work on the project has begun and the first training sessions will be held this summer.



▲ Prof. Luvai Motiwalla



▲ Steven Tello

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Photo Sessions Scheduled for Faculty and Staff

The University has contracted with Eastern Photo of Lowell to make photographs of UML faculty and staff members for use on the web or in internal or external publications.

Photos of faculty—and those staff members whose photos are frequently required for internal and external publicity—will be made from March 20 through April 7.

For further details, go to the University website, www.uml.edu/news



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