

University of New Hampshire

## University of New Hampshire Scholars' Repository

---

Faculty Excellence Awards

---

1991

### Faculty Excellence

University of New Hampshire

Follow this and additional works at: <https://scholars.unh.edu/facultyexcellence>



Part of the [Education Commons](#)

---

#### Recommended Citation

University of New Hampshire, "Faculty Excellence" (1991). *Faculty Excellence Awards*. 18.  
<https://scholars.unh.edu/facultyexcellence/18>

This Text is brought to you for free and open access by University of New Hampshire Scholars' Repository. It has been accepted for inclusion in Faculty Excellence Awards by an authorized administrator of University of New Hampshire Scholars' Repository. For more information, please contact [nicole.hentz@unh.edu](mailto:nicole.hentz@unh.edu).



UNIVERSITY OF NEW HAMPSHIRE

## EXCELLENCE

**Teaching ■ Research ■ Public Service**

**T**here's a certain spark to inspired teaching that begins in an individual personality—a spark that gains students' attention, that leads to new discoveries in research, that fuels a commitment to public service.

It's impossible to overlook the professionalism and expertise with which this year's University Faculty Award recipients approach their teaching and conduct their research. But equally important are the personal and purely human motivations and impulses that make these people so successful in their University endeavors.



# Believing in the unexpected

by Louis Mazzari, writer/editor, University Publications

**I** started out in physics, and I'm still really drawn to some of its implications—philosophical, even religious—and one of the things I've always admired is the logical deduction required. 'If this, then this.' But that seems not the way I operate.

"I say, 'If you do this, then let's see what happens.' Because sometimes there's a serendipitous connection with another observation made elsewhere, and there's this flash of intuition. I'm a great believer in serendipity in science and in life's decisions, in the way one lives."

Serendipity: The faculty of making happy and unexpected discoveries. A chance observation falling on a receptive eye.

Breck Bowden came to UNH four years ago to establish the University's water resource management program. "I was at Yale, two years into postdoctoral work, when a colleague threw an advertisement on my desk for this position at UNH. It was a major change for me, professionally, to come to UNH, but it was a great opportunity. Total serendipity.

"Some people would be aghast at the haphazard nature of working this way, but to a certain degree you can control serendipity. You can't control what's going to happen, but you can be on the lookout and decide whether or not to choose what happens. You can develop a thread to act upon.

"I find this a liberating concept, and it's one of the main themes I discuss with undergraduates. Yes, you can have a plan even though you don't know what's going to happen.

"People are presented with opportunities they have no control over. One needs to recognize that these opportunities arise, and to know whether to act on them or not, while at the same time realizing you'll never know whether you've made the right decision until the end of the game, so to speak."

Bowden's research also involves regions of uncertain control, centering on juxtapositions of

ecosystems. In projects in Puerto Rico, Alaska, and northern New Hampshire, he focuses on the interactions of water and chemicals in riverbanks, wetlands, and floodplains, in the collocation between upland and aquatic environments.

"I'm interested in the in-between areas, in how two ecosystems communicate with each other. Does the communication go one way or both, and what influence does the interface have on the two? And what are humans doing to that communication?"

"What makes these interface zones unique is that they have properties like the areas they border, but they have their own properties, too. And we're beginning to document their influence in elegant and interesting ways."

These connector areas, zones of interaction, are keys or indicators to what's going on chemically and ecologically within the larger environment. Monitoring an Arctic watershed, for example,

as Bowden is doing in Alaska, is likely to reveal the first signs of global warming should it become manifest.

He's convinced a multidisciplinary approach is critical to researching the environment. "In looking at ecosystems, people are finding that the machine is too complex for any one person to understand. We need to come together to be able to study the birds, water, trees, gasses, everything working together.

"I like to think of my approach as similar to looking at an impressionist painting. Your development in your field is related to your distance from the picture. As you move further away, the connections between the colors become clearer and the picture more recognizable.

"That's an extremely tough thing to do because along the way, you may not be able to convince people that you recognize the relationships between the colors.

"Maybe it's a fault, but I find myself incapable of staying focused on one area—I'm drawn immediately to another area of interest. It's exciting to see an intuitive connection flash, then think, maybe I'm understanding the way this works."

## Outstanding Faculty Award

*Through research in Alaska, Puerto Rico, and northern New Hampshire, William Bowden, assistant professor of natural resources, studies the way a given landscape effects the quality of its rivers and streams. He is a specialist in streamflow generation in forested watersheds; influence of landscape on water chemistry/nutrient dynamics, especially nitrogen; and the use of sludge and wood ash as fertilizers on forested land.*



Photograph by Gary Samson

**"I'm interested in the in-between areas, in how two ecosystems communicate with each other. Does the communication go one way or both, and what are humans doing to that communication?"**





Sheila McNamee, center. Photograph by Gary Samson

## The truth is not in the books

by R.W. Moore, writer/editor, University Publications

In her office, Sheila McNamee is surrounded by books. But the truth, she says, is not in the books.

As chair of the Department of Communication, she attends meetings, she leads meetings, she administers. But the truth, she says, is not in bureaucratic structures.

As a teacher, she lectures. The truth is not in the lecture.

"All knowledge," she says, "arises in interaction with others. We find out what we know through dialogue."

Her belief—it is a passion, really, beneath a surface of composed competence—shapes her understanding of communication and the way she teaches. "My crusade is to dispel the myth that the study of communication is based on building skills and strategies—how to listen, how to write and talk. We're talking about complex processes, not products. The outcome is meaningless if you don't know how you got there." And we get there, she teaches, by collaborating in the construction of meaning.

McNamee teaches the psychology of communication—

which some students say is really the philosophy of communication—and courses in language and behavior, family communication, and the social construction of health and illness. "All of these courses focus on how interactions provide opportunities and constraints that construct how we interpret and act in the world," she says. "And because meaning arises in context, we co-construct meanings."

She tells students, "If you do the reading, do the writing, and feed it all back on the tests to pass the course, I will feel like a failure. There should be a transformation."

And she can tell when the transformation has occurred: "There's an exuberance when you become socially responsible for how you act in the world. To know that there is no simple or unitary truth, or that every truth is a constructed reality, is liberating. As long as you think that all your problems are because of this person or that expectation or some well-established social norm, you are powerless."

Sure, students get a little seasick, she admits, without their

familiar moorings. But by the middle of the semester most of them are gaining their sea legs. "By then, the students are talking to each other."

Midterms in the Psychology of Communication are oral exams. Every week the students have had writing assignments, McNamee says. Now they have to present what they know to someone outside the field. "Each student brings a friend who is not familiar with the theories of communication. 'Structural determinism?' they say, 'What the hell does that mean?' If the students can explain it to their friends, they understand it."

"And the students expect me to sit there silently, my pen poised above a little black book; but I'll talk, too. Together we'll find out what we know."

*"There's an exuberance when you become socially responsible for how you act in the world. To know that there is no simple or unitary truth, or that every truth is a constructed reality, is liberating."*

### Teaching Excellence Award, College of Liberal Arts

Sheila McNamee, associate professor of communication, researches and teaches the construction of meaning in social interaction. Her emphasis on the communal, relational aspects of meaning provide alternative methods and perspectives for the study of human interaction. Her research explores this theme in the context of family therapy as well as in alternative conceptualizations of the research process itself.



# The importance of taking chances

by Roger Galuska, writer/editor, University News Bureau

When Ken Fuld picks up a baseball, that old saw about "how you play the game" comes up to bat. If you miss the play or make a mistake, well, just pick up from where you left off and go on.

It's a lesson Fuld has learned well. It's also one he teaches in each aspect of his life, whether it's coaching his nine-year-old son's Little League team, showing his six-year-old daughter how to build something out of wood, directing a class, or discussing politics with his state legislator wife, Amanda Merrill.

A child of the sixties, the former New Yorker has been at UNH for twelve years. At Northeastern University from 1966 to 1971, he was influenced by the era's activism and social upheaval. Dormant while he pursued a doctorate in psychology at Dartmouth and later as he did post-doctoral research at Brown

University, with overseas work in Germany, his interest in social activism was rekindled in the early eighties partly by a ground swell of the peace movement—but mostly by the birth of his first child.

"There are few events in life that are particularly existential, that make you think about the future, about global issues," says Fuld. "One is war. Another is having children. Here I have helped to create a life—what kind of future do I want for this child?"

That, coupled with his marriage to Merrill—"She was a high school Democrat for McCarthy, so we sort of reinforced each other"—revived his desire to create a better world.

That background was reflected in the impact he made on campus with "Nuclear War," a course he co-founded with colleague John Nevin.

After a section on the after-

math of a nuclear conflict, "we saw attendance diminishing, less discussion about things," Fuld recalls, "so we had to be careful to compensate. One reason the peace movement isn't bigger is that there is a large sense of hopelessness. One thing people in the movement have in common is a feeling of optimism—and that's unusual because I consider myself a pessimist."

The nuclear class evolved into the two courses, "War" and "Peace." During the Gulf conflict, the class size of "War" burgeoned from a normal attendance of forty to a hundred and twenty.

"I learn along the way," he explains of his approach to classroom teaching. "It's important for kids to see that what I do is not a result of years of experience, but that I'm an amateur learning about it. They see me make mistakes. They see the importance of taking chances. In class, I point

out that taking chances sometimes means a lower grade, but there are other ways to compensate and build that back up."

## Teaching Excellence Award, College of Liberal Arts

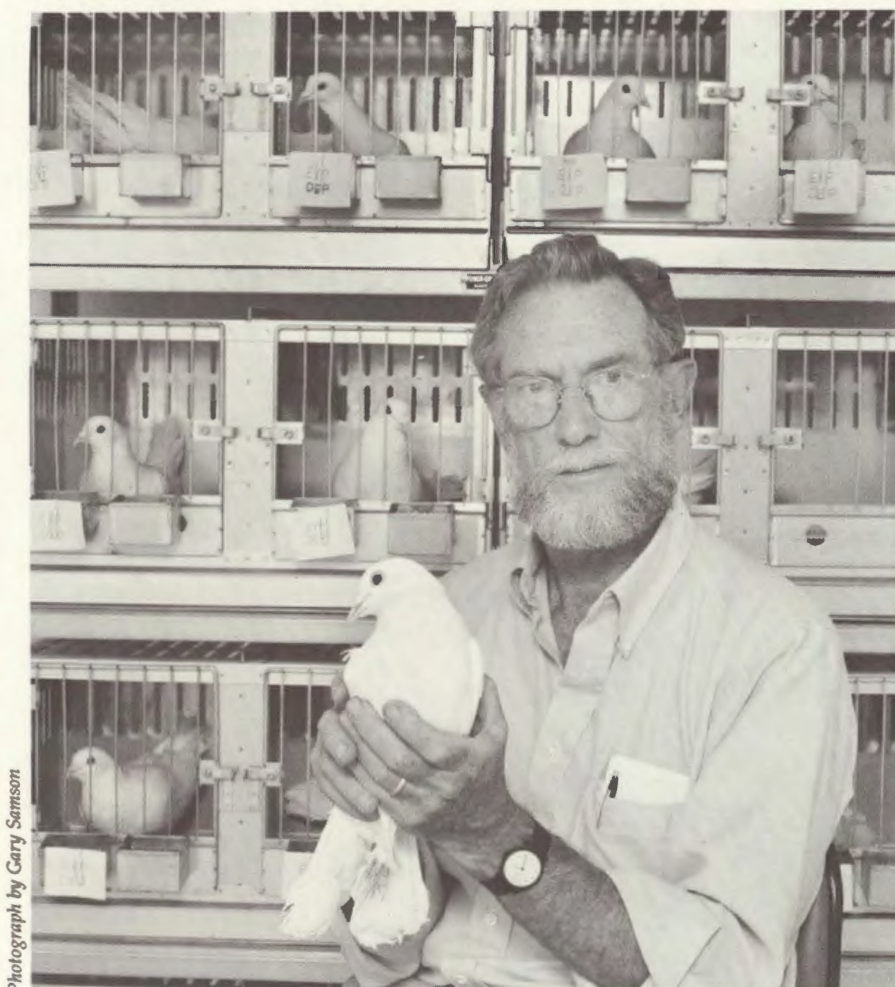
Kenneth Fuld, associate professor of psychology, focuses his research on the field of visual psychophysics; color vision; and spatial vision.

**"There are few events in life that are particularly existential, that make you think about the future, about global issues. One is war. Another is having children. Here I have helped to create a life—what kind of future do I want for this child?"**



Photograph by Gary Samson





Photograph by Gary Samson

**Behavioral momentum is John Nevin's term for the inclination of all sorts of creatures—from pigeons to five-star generals—to keep doing things they get short-term rewards for, even when those things don't make sense in the long run. "Humans are just as short-sighted as pigeons."**

## Unlearning the habits of conflict

by Drew Sanborn, writer/editor, University Publications

Look up pigeons in your bird book and you're likely to find yourself in the section on doves, the two kinds of birds being cousins. This is not unlike the path of life that fate—although as a behavioral psychologist he vehemently rejects the notion of fate—has offered to John Nevin. The foundation of his research is a lifetime of observing laboratory pigeons to discover basic behavioral processes common to all vertebrates, including people. Along the way, Nevin has arrived at some dovish notions about the causes of war and its persistence as a human behavior.

Universities today often encourage research and teaching that cross the traditional boundaries of academic disciplines—a chemist might work with a geologist, an historian might do research with a professor of nursing, and so on. As it turns out, Nevin is a one-person interdisciplinary team.

Trained first as an engineer, then as a psychologist, he brings an engineer's love of order and predictability into the often random-appearing world of animal and human behavior. Proudly holding out the freshly typed manuscript of his latest scientific paper—"An integrative model for the study of behavioral momentum"—he neatly demonstrates how his two disciplines interlock. The behavior of pigeons pecking away at a laboratory testing device can be precisely described, according to Nevin, by Newton's first and second laws of motion. "I bring in metaphors from the physical sciences and electronics a lot," he says. "It's all of a piece."

Behavioral momentum is Nevin's term for the inclination of all sorts of creatures—from pigeons to five-star generals—to keep doing things they get short-term rewards for, even when those things don't make sense in the long run. "Humans," he says, "are just as short-sighted as pigeons."

Enter Nevin's other great educational institution, the United States Coast Guard. Witness Nevin, already more committed to life saving than life taking, as the skipper of a 95-foot cutter on an antisubmarine training run in the North Atlantic one chilly March day in the 1950s.

"During the exercise, my crew and I became totally engrossed in maintaining position plots, listening to sonar signals, predicting the sub's movements, adjusting our course and speed, and estimating when to drop the (mock) bomb. All of the behavioral components of antisubmarine warfare were practiced and were reinforced in various ways, including the sheer pleasure of winning and the approval of our superiors. The notion of behavioral momentum was born for me then."

Does Nevin think that his research on behavioral momentum could eventually lead to a "cure" for war? "I'm afraid the answer is 'probably not.' Although my work may suggest some new approaches, it is difficult, if not impossible, to extrapolate the behavior of individuals to the behavior of large, complex nation-states."

That may be the case, but it has not prevented Nevin from doing what he can to slow the momentum of war and preparations for war. He is one of a group of faculty members from many UNH departments who offer a one-semester course called "War" and another called "Peace."

"The reason I like working with this course," says Nevin,

"is that war and peace don't belong to just one discipline. All disciplines have something to say about these issues, so we balance the various perspectives. (As many as seventeen faculty members volunteer to lecture.)

"But we make no attempt to hide our individual values. We want the students to hear a range of opinion. There are some who think violence is never a suitable way of dealing with threats, and there are others who favor a strong, well-armed negotiating position."

Nevin makes his own stance clear: "Humanity will never unlearn the habits of conflict until cooperation appears more profitable than war. Peace is the shift to cooperative behavior for the long-term good of all parties. War is not like a volcanic eruption—people can choose not to have a war."

### Distinguished Professor Award

John Nevin, professor of psychology, teaches undergraduate and graduate psychology courses and chaired the University's Commission on Research and Graduate Education in 1989-90. His research focuses on learned behavior; conditioning; reinforcement; behavior momentum; discrimination; choice; species generality; and unadaptive social behaviors. Nevin also works half time as the director of the Cambridge Center for Behavioral Studies in Cambridge, Massachusetts.





*"At one time I wanted to be a minister, but then I found literary works to be more involved in spirituality than the formal religious works. They had meaning to me, a deep affinity for the spiritual mysteries."*

## Seeing in cinema a connection with the spiritual

by Roger Galuska, writer/editor, University News Bureau

When the rest of us view Lillian Gish in D.W. Griffith's *Birth of a Nation* or another silent film, we see flickering images punctuated by titles and backed by a ponderous organ or trilling piano.

When Phil Nicoloff watches the same thing, he sees an insight into America's spirit and spirituality. As an English professor and film teacher, Nicoloff has fashioned his deepest beliefs into a career.

The thirty-seven-year veteran of UNH's English department settles into his Murkland Hall office cluttered with books and movie canisters. Striking silver hair, a strong unlined jaw, and the amused twinkle in his eyes seem characteristic of a man much younger than this sixty-four-year-old.

"I was well and wisely fed," he smilingly explains.

The comment may be given offhandedly, but could be taken as a philosophical double entendre,

for the youthful visage seems a physical manifestation of a deep contentment with his life, nurtured by faith.

At one time moved to enter the clergy, Nicoloff instead found his calling among the pages of literary genius and in the works of the film-making greats.

"At one time I wanted to be a minister," he confides, "but then I found literary works to be more involved in spirituality than the formal religious works. They had meaning to me, a deep affinity for the spiritual mysteries.

"I don't consider myself 'religious,' but the writers who sustain me most are Emerson, Thoreau, Melville, James—all of whom I see as very serious explorers of these dimensions," he says. "I think it forms the basis for the works I choose to teach and what I emphasize in my teaching."

A viewing of Ingmar Bergman's *Wild Strawberries* was a turning point for Nicoloff. "The philosophical and dramatic force of

that film equaled anything I've experienced in theater or prose fiction," he says. "It went beyond entertainment or recreation. It raised profound questions in profound ways—on the nature of God, parent/child relationships, one's obligation toward those whom one ought to love but perhaps doesn't. It is deeply serious stuff."

Currently, Nicoloff is exploring one of the cradles of mysticism, Japan. After several teaching trips to that country, the encounter with a culture he found "immensely stimulating" has evolved into his now major academic labor—writing a book about "the most important figure in the history of Japanese Buddhism": the monk Kukai, the monastery he founded in a high mountain valley, and Shingon, the sect he sparked.

What he plans is an examination of Kukai's thoughts in the context of the thinking of a num-

ber of writers, such as Thoreau, Emerson, Wallace Stevens, and philosopher Alfred North Whitehead.

"The story of my life," he says, "is a succession of enthusiasms that have some continuity. My relationship to Henry James and to silent film is very personal, very intimate. With film in particular, it's as if my students and I are working in an area that has been lost and forgotten, yet is truly extraordinary."

An aspect that attracted Nicoloff to teach film, he notes, was "the opportunity to present in the classroom films like Fellini's *8 1/2* and *Wild Strawberries*, and subject them to intense scrutiny.

"I see these as major religious works of Western culture." Then with a trace of bemusement, he adds, "But you see, I like Buster Keaton just as much."

### Teaching Excellence Award, College of Liberal Arts

*Philip Nicoloff, professor of English, specializes in the history of film and the history of ideas in nineteenth century America, specifically, theories of race and history.*



# Knowing how to kick the dirt

by Tad Ackman, writer/editor, College of Engineering and Physical Sciences

Tom Ballestero is describing a research project he's been asked to help with. "Now, the bugs will eat almost anything: woodchips, grass clippings, manure. ('Bugs' is shorthand for microorganisms that live almost everywhere and make life on earth possible.) But bugs are like people: they need air, water, and food. If you were starving and someone gave you soda crackers, it's not going to do you much good without water, is it? If there's too much water, the bugs'll drown. If there's too little, it's like trying to feed a starving man soda crackers."

The life of a compost heap explained.

No ordinary compost heap, this. Ballestero's expertise in hydrology was sought by a UNH plant biologist to develop an ecological way to compost the yard waste of an entire town. The idea is to preserve precious landfill space for things that aren't so easily put to good use. His collaborator is working on the optimal diet for the "bugs." But whatever leaches out of the four-acre site needs to be understood and accounted for before the researchers can recommend large scale composting to New Hampshire communities. So Ballestero and his hydrology students keep an eye on what goes on underground for traces of runoff heading for the water supply.

No ordinary civil engineer, either. Ballestero's sheepish grin and offhand manner make him instantly accessible on a personal level. Something of the bohemian life of Ballestero's college days at Penn State still clings to him—days before he got serious about engineering and dreamed instead of being a soccer star. He still plays on a soccer team. And he tosses a mean frisbee. And gets his hair cut "every six months whether I need it or not."

He doesn't come across as someone who has been voted engineering professor of the year by the student engineering honor society. Nor, in a long-sleeve plaid flannel shirt, with a shovel

in his hand, or down on his knees leveling a PVC pipe in a trench, or hunched over a notebook on the tailgate of a pickup, does he look much like the author of forty technical reports and papers, the director of the state's Water Resources Research Center or, for that matter, like a Fulbright Lecturer—which is what he is doing this year in Brazil.

"He's the most dynamic teacher in this department," says Nancy Kinner, herself recognized last year as one of the University's outstanding teachers. Kinner says Ballestero is able to immerse students in the subject matter by lucid analogies that make use of

"I like teaching," he says matter-of-factly. As a consultant, he says, "you never get to explore things. You have to do this job, get it done, and that's the end. Then you do another job, totally different, and you may have these lingering questions. Like this thing," he says, nodding at a ready-made sampling device for the compost operation. "I know this may not work so I put in a makeshift version over there . . . and, uh, maybe that won't work either!" He laughs. "So, then you get to explore more things."

Ballestero seems to shrug off any recognition. "Here in New Hampshire, I think the most

"That's probably the biggest thing. Just getting recognized as someone who knows how to kick the dirt, not just talk about it."

## Teaching Excellence Award, College of Engineering and Physical Sciences

Thomas Ballestero is an associate professor of civil engineering and director of the UNH Water Resources Research Center. His research focuses on water resources engineering; hydrology; groundwater; fate and transport of contaminants; computer simulation; and field methods for measurement of hydrologic parameters.



Photograph by Tad Ackman

unrelated experiences (like eating soda crackers), by stories about his own experiences as a consultant for three years before coming to UNH in 1983, and by plunging them headlong into engineering experiences of their own—usually as part of a project he is already doing for a community.

At the site of the four-acre compost experiment, between directing a backhoe, working a hand auger, and joking with students, he takes time out to reflect.

gratifying thing I've accomplished is becoming recognized enough that I can become involved with a lot of these field projects. George Estes, in plant biology, called before Christmas and talked about this compost project, and we got going on it. With the project in Jaffrey—monitoring stream flow to determine the effect of sewage treatment on the Contoocook River—the state called up and said, basically, 'Look, you're the one we trust to do this job.'

**"Here in New Hampshire, I think the most gratifying thing I've accomplished is becoming recognized enough that I can become involved with a lot of field projects."**



**"History helped put events in perspective. I found out there were reasons for things, that the world was not that chaotic."**

Photograph by Garry Samson



makes the connection, whose eyes open wide at the sudden thought that history is more than learning dates.

Seeing students come to that realization "is a wonderful thing," he says, "but it's a great responsibility. There's a fine line between education and thought control."

Cerullo tries to carefully guide his students along the pathways of history, not pull them along at breakneck speed. As he explains, "What's exciting about teaching is the opening of possibilities, not the closing of them."

He points out that his classes include many adult students, and in some instances, the subject matter challenges their longtime beliefs. Adult students' views on religion, for example, can be well-entrenched, and Cerullo is careful not to discount these views, but augment them, in class.

He enjoys the challenge of teaching UNH/Manchester's combination of traditional college-age students and adult earners. "Having adults in the class makes all the difference," he says. They contribute experiences and points of view often lacking in traditional classrooms, he says, adding that he also appreciates younger students' viewpoints. "It's the mix," he says, smiling. "If it were only one or the other, it wouldn't be as much fun."

#### **Teaching Excellence Award, UNH at Manchester**

*John Cerullo, associate professor of history, is concerned with the history of science, particularly psychology and the social sciences; determinants of social-scientific work; and the implications and consequences of scientific thought.*

## History can conquer fear

by Carmelle Druchniak, editor, Campus Journal

**J**ohn Cerullo's teaching career was born out of chaos.

In 1967, at seventeen years of age, Cerullo left his hometown of Hazelton, Pennsylvania, to enter Georgetown University in Washington, D.C. He went from a small coal-mining town to a city that was exploding with racial tension.

"It was turmoil in '67 and '68," Cerullo recalls. "The city erupted in race riots after Martin Luther King's death, and the campus was bitterly polarized over the war."

A youngster who had never strayed far from family or home, Cerullo found the events difficult to comprehend. And unable to deal with the frightening confusion around him, he left Georgetown

the next spring, transferring in the fall to the University of Pennsylvania.

It was at Penn that Cerullo met an influential history teacher who showed him that the study of history can make sense out of what may seem senseless, like the events he had witnessed in Washington.

Sitting in an empty classroom at UNH/Manchester, where he teaches several history courses, Cerullo explains, "History helped put it in perspective. I found out there were reasons for things, that the world was not that chaotic." In some ways, he says, "history can conquer fear."

Cerullo had the opportunity to test that theory more than twenty years after leaving George-

town. This time, it was the Intifada, the Arab uprising, which began while Cerullo was in Jerusalem. He was touring Europe and the Mideast because, as a teacher of humanities, he wanted to actually visit the historical sites he explained in class.

With violence growing around him in Jerusalem, however, he was once again alone in the midst of panic and confusion. But this time, he says, he had his knowledge of history to put events in perspective. And it's this perspective that Cerullo transmits to his students.

"The world gets a lot more interesting through what you learn," he says with a smile. And, on occasion, Cerullo can spot a student in the classroom who



# Searching beneath the surface

by Sharon Keeler, writer/editor, University News Bureau

The most common things in life are sometimes quite complex, once you get under the surface.

For students in Christine Evans's introductory soil sciences class, this can be taken rather literally.

"When one of my students picks up a handful of soil in the middle of a semester and comes to the sudden realization that, 'Wow! This common thing is much more complex than I once thought,' then real learning is taking place," says Evans. "The student begins to understand that maybe there are other things in life that appear simple on the

come in with the attitude, 'So what does this mean to me.' My goal is to teach them how incredibly complex and relevant soil is."

According to Evans, once students "get their hands into the course," so to speak, that initial indifference quickly disappears.

"We look at the weathering of rocks and how they turn into soils, and at the properties of soils, which make them quite efficient for filtering pollutants," explains Evans. "See, it really is quite relevant."

Evans, like her students, was not initially sold on soil science. A wildlife biology major at the start of her academic career, she turned

organic properties necessary to filter out harmful waste before it contaminates groundwater. It's incredibly diverse and complex."

According to Evans, soil science was once a field that focused mainly on agriculture, but with the emergence of the environmental movement, the discipline has earned a new-found respect.

"Our society's concern for the environment has added a whole new dimension to the field," explains Evans. "There is a growing awareness that planning, design, and construction of public and private facilities must be compatible with the soil upon which they are placed."

"I love being out in the field, experiencing the normal course of my work. Though the end result is nice, the hands-on process and the painstaking detective work are what's most satisfying."

## Teaching Excellence Award, College of Life Sciences and Agriculture

*Christine Evans, assistant professor of forest resources, specializes in research on the origins, characteristics, and uses of soils; the weathering of granite rock, its breakdown process and natural radioactivity; disturbed soils; and geological deposits.*



Christine Evans, second from left. Photograph by Gary Samson

surface, but are actually pretty complex. This is what general education is all about."

For Evans, teaching introductory soil sciences is a challenge—a challenge she loves.

"Because it's a 'Gen. Ed.' course, I get a lot of different students, some of whom don't have much interest in soils. They

to the field accidentally.

"I took a soil science class and realized that this is what I wanted to do. It brings it all together, connecting the functions and principles of the different natural resource disciplines.

"A handful of soil can contain the history of an entire geological region," says Evans, "or the

While the results of Evans's and her students' research has practical applications, both environmentally and agriculturally, she says her motivation is pure scientific knowledge. Like a detective uncovering the clues to an intricate murder mystery, Evans finds the "process" of her research the true reward.

**"When one of my students picks up a handful of soil and comes to the sudden realization that, 'Wow! This common thing is much more complex than I once thought,' then real learning is taking place."**



**"If we're expecting our national leaders to face the tough issues, then we've got to be equally responsible at the community level."**

Photograph by Gary Samson



## Making an impact: Our obligation to a pluralistic democracy

by Sharon Keeler, writer/editor, University News Bureau

On Wednesday evenings, Lee Seidel is usually contemplating the future of a school system faced with record enrollments, fiscal inadequacies, and changing educational practices and needs. As an elected member of the independent school board serving Durham, Lee, and Madbury, he is charged with the immense task of providing the best possible education to the community's children.

"The governor isn't the one who feels the pressure," says Seidel, with a subtle smile. "It's we—the board members—who are accountable since we raise almost ninety percent of our eleven million dollar budget through local taxes."

For this fourteen-year University veteran of health management and policy, accountability is a way of life. Whether he's assisting a small New Hampshire town with the realities and difficulties of public education, or serving on the boards of voluntary health organizations, Seidel believes completely in his role as a professional and community educator.

"Communities must realize their potentials," says Seidel, contemplating his call to public service. "As a faculty member of

a state-supported university, I have the opportunity to share my knowledge for the benefit of both my students and my local and professional communities. While the classroom and writing are my primary job, the public sector is equally important."

The spirit of community and volunteerism was what first drew Seidel to a career in hospital and health services management. "Virtually all health services organizations rely upon dedicated and selfless volunteers as trustees, directors, and helpers to meet their mission. Helping voluntary boards balance community values with organizational actions is one of the many unique aspects of my field."

Seidel has helped direct the path of his profession by serving on such national committees as the American College of Healthcare Executives, American College of Medical Group Administrators, and Association of University Programs in Health Administration. He was chair of the board of directors for the last—the only individual ever elected to that position from a baccalaureate-level program in the association's forty-three year history.

Seidel transfers the expertise he acquired working with these national organizations to the local level. Currently, he is chair of the David and Mary McKerley Foundation, a New Hampshire foundation interested in health-care services for the elderly.

According to Seidel, accomplishments on a local level can weigh heavily upon national issues. "If we're expecting our national leaders to face the tough issues, then we've got to be equally responsible at the community level."

"Each of us has the ability to make an impact, whether on a personal or professional level. It is not an extraordinary effort; it's our obligation and a passion unique to a pluralistic democracy."

### Excellence in Public Service Award

Lee Seidel, professor of health management and policy, specializes in the management of hospitals and health agencies. His research areas include long-term care and housing alternatives for the elderly. He is also involved in developing continuing education programs for active health-care professionals.



## "I need twelve days in a week"

by Carmelle Druchniak, editor, Campus Journal

When Stacia Sower was six, she joined the Girl Scouts. She took her oath so seriously, she stayed in the organization through college.

Also while in college, she joined the VISTA Citizen Corps and worked with Hispanic migrant workers, and was a tutor in the Big Sister program.

After graduation, she joined the Peace Corps and lived in Venezuela for more than a year, teaching the aquaculture of shrimp. And when she returned to the United States, she assumed a six-month position with the U.S. Fish and Wildlife Service.

Sower is finding that her commitment to public service is a habit that's hard to break.

She's been at UNH since 1983, and has continued to contribute her time to a variety of causes. She only recently stepped down as chairperson of the Academic Senate budget and planning committee, a group known for working long hours and tackling the toughest issues that face the institution.

Chairing the committee meant membership on more than a dozen other campus committees, resulting in a hectic schedule that also included her full-time endocrine research program on the reproductive habits of lamprey, eel-like creatures common to rivers and streams. She also is involved in salmon aquaculture and restocking of rivers and streams.

Then there's her teaching schedule. She teaches an introductory biology course, a course she—no surprise—volunteered to teach, which helps keep her current in her field. Sower admits, "I needed twelve days in a week this year."

Asked why she puts such an emphasis on public service, Sower shrugs. "I was raised on the theory of give and take. If you take, then you also give back."

Her parents taught their five children to give their time and energy to others, just as most parents teach their kids to look both ways before crossing the street. "I

was just brought up learning that you helped out."

She points to her older brother's sacrifice as only one example of her family's credo. He, too, believed in give and take, and in 1967 volunteered for duty in Vietnam. He was killed in non-combat duty.

"He believed that you gave something, that you volunteer," she says quietly.

It's a childhood lesson Sower hasn't outgrown. "It's a faculty

bed with a mystery novel. And this past summer, Sower planned her first vacation in three years.

After a little relaxation, however, Sower will be back on campus, teaching class, conducting research, and serving on committees that meet hours each week, week after week.

"This is not what I thought I'd be doing," she says with a laugh. When she first entered the University of Utah, she planned a career in physics. She later

### Excellence in Public Service Award

In addition to her public service efforts, Stacia Sower, associate professor of zoology, is involved in research on reproductive physiology; the evolution of reproduction in vertebrates; reproductive endocrinology; anadromous fish; and lamprey.



Photograph by Ron Bergeron

member's responsibility to give something back to the institution," says Sower. "Unless you give something, you can't expect to share in the benefits of being here."

No matter how dedicated to UNH and her profession, there are times when Sower needs some personal time. She spends most evenings walking her thirteen-year-old Labrador retriever, "Jutes," and then curling up in

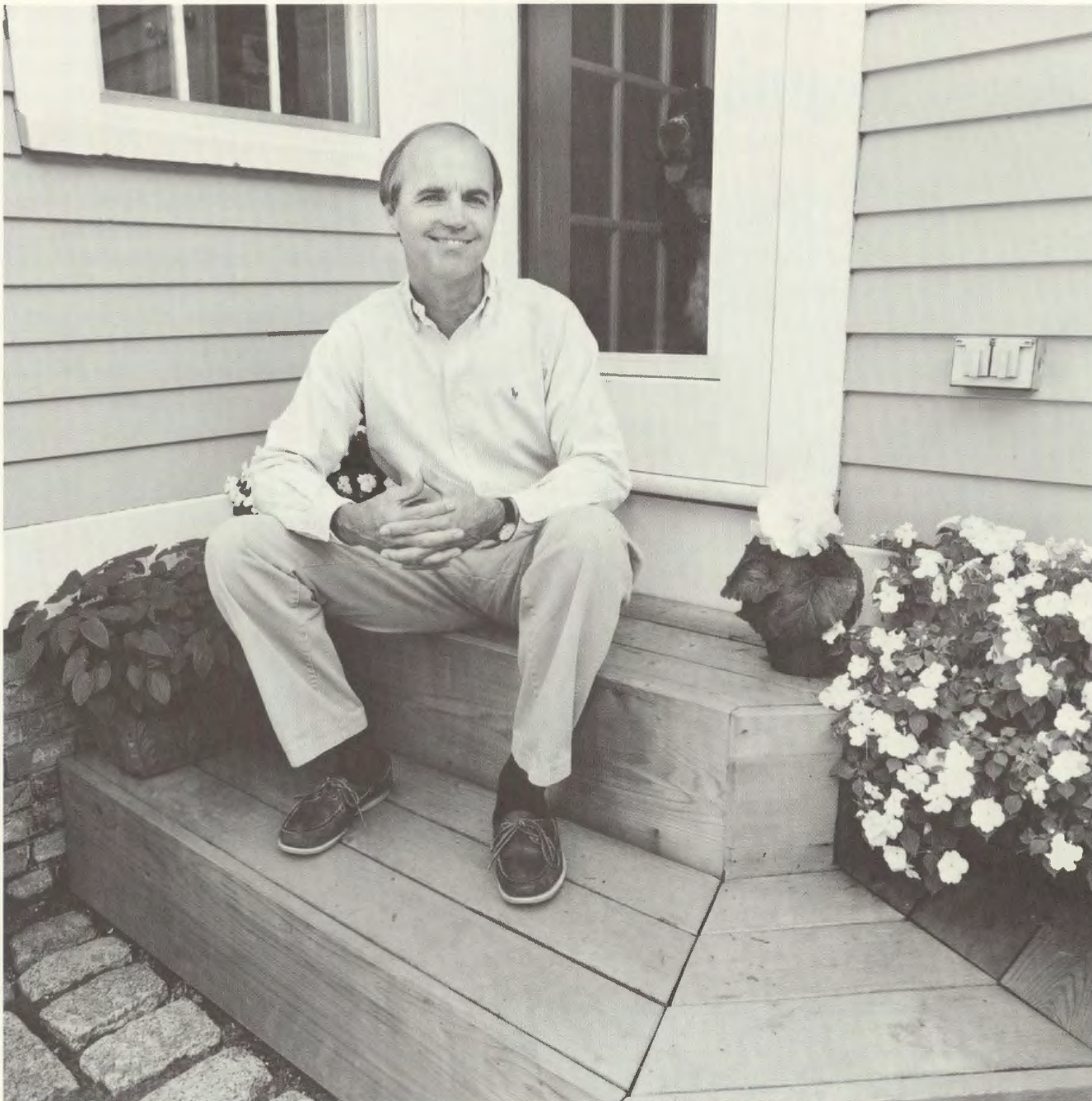
changed to biology, and after her stint in Venezuela, "I thought I could help feed the world." She even briefly considered a career in the Foreign Service, but it seems Stacia Sower is needed more at home, on campus, and in the classroom.

What began with the Girl Scouts—that dedication to public service—continues. The only thing missing is the uniform.

**"It's a faculty member's responsibility to give something back to the institution. Unless you give something, you can't expect to share in the benefits of being here."**



***"Quite frankly, most students are interested in health care as big business. My goal is to convince them that health care is more than a business—it's dealing with the quality of people's lives."***



Photograph by Gary Samson

## **"It is my students who can make the changes"**

by Kim Billings, assistant director, University News Bureau

**B**rian Pearson left Durham for Washington, D.C., earlier this summer to make some changes. "If you ask me why I'm going," says Pearson, "it has a lot to do with John Seavey."

Pearson, a health management graduate from Stowe, Vermont, says he "felt like the luckiest student on campus" the day he met Seavey.

Although a quiet, thoughtful person who chooses his words carefully and speaks just slightly louder than a whisper, John Seavey gets, well, *cranked* about the dismal state of health care in America. Thirty-eight million people without health insurance;

physicians who refuse Medicaid payments; no national health care policy to help the indigent.

So why is this professor, who feels so passionately about his research, teaching at a University? Why not become a high-powered lobbyist in Washington?

The less obvious reason is because Seavey has close ties with his family, who also live in the Seacoast area. His great-great-grandfather was Senator Wingate, New Hampshire member of the Continental Congress and the first New Hampshire Senator in the U.S. Congress. Three small, framed needlepoint ducks hang on his wall near the

door—a Christmas present from his sister. Seavey says softly that he wishes his father were alive to see him receive his Outstanding Faculty Award.

But the more practical reason he stays is because of the effect he hopes to have on students. "I am able to have a bigger impact on students," he says. "It is my students who can make the changes."

The smallest of several plaques on the walls of his office is the 1985-86 School of Health and Human Services' Outstanding Teacher Award. It is Seavey's favorite. "The students gave me that," he explains, "and it means everything to me."

When Pearson asked Seavey if he'd sponsor an independent study with him last semester, it was Pearson's hope that he could return to Vermont and work toward improving rural health care. Instead, he packed his bags in June and left for D.C. hoping to find a job that would get him involved with health care policy.

"Originally, I had planned to return to Vermont," Pearson explains, "but as my work with John progressed, I realized I could have a larger and a more significant impact on the state of rural health care in Washington. There need to be changes in health care policy for people everywhere in the United States, not just Vermont."

Pearson is precisely the kind of student Seavey likes to see in his classes. "Quite frankly," Seavey says, "most students are interested in health care as big business. They're interested in the larger hospital chains, for example. My goal is to convince them that health care is more than a business—it's dealing with the quality of people's lives."

### **Outstanding Faculty Award**

*Associate Professor John Seavey works in the areas of health policy; medical reimbursement; small rural hospitals; and multi-institutional health systems. He has taught at UNH since 1980.*



# As women change, so do families

by Susan Warner, writer/editor, University Publications

Kristine Baber began a journey at the age of five. As the winner of a Little Miss Curity coloring contest, for Curity band-aids, she was interviewed at a local hospital dressed in her new little nursing uniform. The patients at the hospital, looking thoughtfully at her costume, asked Baber what she wanted to be when she grew up. A doctor! was her reply. No, they gently corrected her, little girls become nurses, not doctors.

Since then, Baber has been intrigued with what our society has come to call "women's roles."

"Years ago, I worked in direct service for families in Florida on cases involving child abuse and foster care," says Baber. "I also did divorce custody studies. During my experience with these people, I became aware of the lack of power women have.

"Women are just beginning to take control of their lives. Whether they're furthering their education or working toward a more professional career, more women are delaying childbearing and are making very deliberate decisions about the kind of men they want as fathers for their children. But all women must deal with certain pressures: Are you a real woman if you don't have children? Are you a professional if you do? What if you want to stay home with your children? Society doesn't ask these questions of men."

That doesn't mean Baber sees women living in isolation. "The world we live in is interconnected. As the roles for women change, there are implications involving not only the texture of women's lives, but also in their relations with men, with employers, and with all sectors of our society. As women change, so do families." She smiles briefly. "I study the consequences of those changes."

One of those changes has been in how we approach sexuality education. Baber brings her previous work with families, her fine sense of theory, and a long record of research into classroom

discussions about sexuality. She will use a Whiting Fellowship this year to study sexuality education programs in Sweden.

"The Swedes have a very different attitude about sexuality education than we do in the United States. They emphasize the positive aspects," says Baber. "In our country, we talk about the negative aspects—venereal disease, teenage pregnancy—and perpetuate the problems. Teenagers in our country aren't comfortable talking about sex, yet they are bombarded with sexual images from eroticized advertising. We are starting to see more openness in how families talk about sex—but only because of AIDS. It took a deadly epidemic to bring that about."

Baber doesn't come across as another Dr. Ruth—advocate for all things sensual and intimate—yet some of the courses she teaches have titles that can cause sensitive souls to blush. She approaches these subjects with a calm, thoughtful, theoretical touch, and makes it easy to consider and discuss topics our mothers considered too personal to share.

In a recent class on the consequences of pornography, Baber examined two viewpoints: the right of free speech and the belief that pornography exploits women. "What are the important questions to ask?" she muses. "Walk around the issue and look at all the sides."

## Teaching Excellence Award, School of Health and Human Services

Kristine Baber, associate professor of family relations, focuses her research on the areas of sexuality education; delayed childbearing; family policy; and sex roles.



Photograph by Gary Samson

**"As the roles for women change, there are implications involving not only the texture of women's lives, but also in their relations with men, with employers, and with all sectors of our society."**





*"I teach in an area where we grapple with technology at the managerial level. And the technology is changing rapidly."*

## Management and technology from an international perspective

by Carrie Sherman, writer/editor, University Publications

She has an incredible way of blending the practical with the theoretical," says Paul Drain, a student in the M.B.A. program. When analyzing a case study, class discussion can go in many directions. This method of teaching is very demanding. Students must be well-versed in the basic principles of operations management along with other business fundamentals in order to respond instantly to business questions. "Linda knew how to focus in on the most critical factors. She'd say, 'What is this company's business? What has made them successful?' and we'd go from there."

In addition to her teaching at the University, Sprague has also taught in England, Spain, Switzerland, China, Korea, and Hungary. She was a founding professor of a

business school in Dalian, China.

She is a certified practitioner in inventory management and a fellow of the Decision Sciences Institute. A past president of the institute, Sprague was the co-chair of its first international meeting held in Brussels, Belgium, June 1991. She is a member of the Board of Directors of the Operations Management Association and chair of its publications committee. She is also a member of the American Production and Inventory Control Society (APICS) and serves on its certification council. She is management adviser to The Societe Internationale de Chirurgie Orthopedique et de Traumatologie (SICOT) and is president of the SICOT Foundation.

Sprague is equally comfortable on a factory floor and in a high-level board meeting. Her

stories are informative and riveting to students and professionals alike—how she swung in a crane in Quebec, taught under tear gas in Korea, or made friends with women factory workers in China. The international perspective that she brings to the classroom and to business is essential to succeeding in today's global marketplace.

A frequent guest speaker, Sprague gave a talk on factory systems in the Far East for the local chapter of APICS, dispelling many myths. As Lake Patterson, manufacturing manager for GTE's plant in Exeter, New Hampshire, recalls, "It was clear that the overall technology simply wasn't comparable to what it is here."

Patterson has known Sprague for many years through APICS and the Whittemore School's internship program. Students will work with his staff for a month or two on a business problem. Two students who worked on such a project were hired recently as full-time employees.

Gertrude Pannirselvam, an M.B.A. student, was accepted this year into a doctoral program in operations management. "When I applied for my Ph.D., Linda spent hours going through the application process, and I hadn't even taken a course from her at that point. In the internship program, she taught us a lot about professional consulting. She gave us pointers on how to sell an idea. Factories here are much more automated than they are in India, where I'm from. And that means

that decisions here are less hierarchical. My engineering degree helped me to relate to her also."

In addition to a doctorate in business administration from Harvard and a master's degree in business administration from Boston University, Sprague's undergraduate degree is in industrial management from M.I.T. with a minor in geology and geophysics.

Sprague says her educational philosophy goes back to the Renaissance. "At that time a liberally educated person was grounded in the sciences, which included philosophy and theology.

"I believe, at the Whittemore School, we teach liberally educated students for the twenty-first century. We require that our students be grounded in such fundamentals as statistics, economics, history, and English. I teach in an area where we grapple with technology at the managerial level. And the technology is changing rapidly. Students, when they graduate, must be ready for a lifetime of learning."

### Teaching Excellence Award, Whittemore School of Business and Economics

Linda Sprague is professor of operations management and chair of the Department of Decision Sciences. Her areas of expertise include capacity management and analysis for manufacturing and service operations; strategic management for international operations; and inventory management including distribution inventories.



# Tracing a picture of global change

by Tad Ackman, writer/editor, College of Engineering and Physical Sciences

In his cautionary 1990 film, *After the Warming*, James Burke shows how all civilizations rise and fall on a single tide: changes in global climate. The real grabber, though, is that Burke sets his science-fiction documentary in the year 2050. And the narrator is looking back to when humans first realized that, simply by thriving as a species, they had turned the tables on nature and had—without the faintest desire to do so—begun driving the climate.

What puzzles the narrator is why his ancestors took so long to act on what they were learning. In the film, as in real life, the time of realization is approximately now.

Were it longer, Burke's film might have included numerous interviews with scientists of that past era who were working to piece together the big picture and sound a warning that could be heard over the competing din of war and plague, falling walls, rising populations, poverty and hunger. One of the people certain to be interviewed would be explorer, glaciologist, and earth science professor Paul Mayewski.

*Fade up on Mayewski on board a noisy C-130 cargo plane bound for Greenland.* Mayewski is directing a five-year, \$15 million multi-

institutional effort to produce the longest, clearest record of global change ever retrieved in the northern hemisphere. The two-mile-deep ice coring operation will recover 200,000 years of earth's history from the glacial deep-freeze. Chemistry, trapped particles, dissolved air, even electrical conductivity, are clues—letters in a difficult language that spell out answers to questions about human impact on earth's climate.

*Cut to earlier that day, in his UNH office.* "Ice cores are the Rosetta Stone of earth systems science. Until now, pieces of the puzzle have been around but we didn't have the picture on the box to go by. Now, we're still missing some pieces, but suddenly, we're getting a good feeling about what the rest of the picture might look like."

The viewer learns Mayewski has led twenty-two expeditions to Greenland, China, Iceland, India, and Antarctica. He tells of being holed up in a tent for days, with nothing to do but lie on his back, eat meat bars and chocolate, and keep the tent from blowing over until the white-out passed. And of the giant C-130s with skis on their landing gear that first have to thump along the surface of a

virgin landing strip, barely flying, in order to reveal snow-covered crevasses big enough to wreck a plane. Or the times in northern India when, instead of arctic isolation, he worked in regions with man-eating tigers and feuding villagers, where he met people who opened his eyes to the importance of doing science of immediate and direct benefit to humanity.

"A lot of the fieldwork is straight out of the nineteenth century," Mayewski says, with thoughts of Byrd, Peary, and Scott. "But the science we do cannot be done any other way." The true adventure, he insists, is not the physical challenge, however alluring, but a taste for discovery.

*Back on board the C-130.* As the giant craft shudders to a landing on the outskirts of this temporary glacier shanty town, Mayewski knows that what they find here is only part of what he's looking for.

*Exterior shot of aircraft door opening.* The questions that only history will answer are larger and more dangerous.

*Mayewski emerges. Glances skyward. Freeze frame.* How soon can the world react to what they learn here and what is the price of delay?

*Slow fade to black.*

## Excellence in Research Award

Paul Mayewski is a professor of earth sciences and director of the University's Glacier Research Group. His work has contributed to the development of a global network of study sites including locations in Greenland, Asia, and the Antarctic, with an emphasis on long-term records of global change.

**"Ice cores are the Rosetta Stone of earth systems science. Until now, pieces of the puzzle have been around but we didn't have the picture on the box to go by. Now, we're still missing some pieces, but suddenly, we're getting a good feeling about what the rest of the picture might look like."**



Photograph by Paul Mayewski



# Award Recipients

## William Bowden

Assistant Professor of  
Natural Resources  
*Outstanding Faculty Award*

## Sheila McNamee

Associate Professor of  
Communication  
*Teaching Excellence Award,  
College of Liberal Arts*

## Kenneth Fuld

Associate Professor of Psychology  
*Teaching Excellence Award,  
College of Liberal Arts*

## John Nevin

Professor of Psychology  
*Distinguished Professor Award*

## Philip Nicoloff

Professor of English  
*Teaching Excellence Award, College  
of Liberal Arts*

## Thomas Ballestero

Associate Professor of  
Civil Engineering  
*Teaching Excellence Award, College  
of Engineering and Physical Sciences*

## John Cerullo

Associate Professor of History  
*Teaching Excellence Award,  
UNH at Manchester*

## Christine Evans

Assistant Professor of  
Forest Resources  
*Teaching Excellence Award, College  
of Life Sciences and Agriculture*

## Lee Seidel

Professor of Health  
Management and Policy  
*Excellence in Public Service Award*

## Stacia Sower

Associate Professor of Zoology  
*Excellence in Public Service Award*

## John Seavey

Associate Professor of  
Health Management  
*Outstanding Faculty Award*

## Kristine Baber

Associate Professor of  
Family Relations  
*Teaching Excellence Award, School  
of Health and Human Services*

## Linda Sprague

Professor of Operations  
Management  
*Teaching Excellence Award,  
Whittemore School of Business  
and Economics*

## Paul Mayewski

Professor of Earth Sciences  
*Excellence in Research Award*

Office of University Relations  
Schofield House  
University of New Hampshire  
Durham, NH 03824-3556

ADDRESS CORRECTION REQUESTED

Nonprofit  
Organization  
U.S. Postage  
PAID  
Permit No. 2  
Durham, NH

NANCY J MCCUE  
LIBRARY ADMIN  
DIMOND LIBRARY  
057



***“Each of us has  
the ability to  
make an impact,  
whether on a  
personal or professional level. It is  
not an extraordinary effort—it’s  
our obligation and a passion unique  
to a pluralistic democracy.”***

*Lee Seidel  
Professor of Health Management and Policy*

UNIVERSITY OF NEW HAMPSHIRE

# EXCELLENCE

*Excellence: Teaching, Research, Public Service* is published by the Office of University Relations. The editors are Sharon Keeler and Louis Mazzari. The graphic designer is Peter Garipey. Editorial offices are located in Schofield House, Garrison Avenue, UNH, Durham, NH 03824; telephone 603-862-1463.