I would like you to meet and celebrate the achievements of some distinguished UNH faculty members. These extraordinary people exemplify the excellence of UNH faculty as a whole.

In these pages you will learn about the founder of a high-tech company built on chaos theory, a historian who teaches in town halls and board rooms, a forester who serves as a bridge between academe and industry, and an economist who understands the importance of beach sand and clean air.

Their teaching and research touches their students, influences their academic disciplines, and contributes to their communities both here and abroad.

What do these faculty members—the best of the best—have in common?

Read on.

DAVID R. HILEY
Professor of Philosophy
Provost and Vice President for Academic Affairs

UNIVERSITY OF NEW HAMPSHIRE ★ 2001
UNIVERSITY-WIDE

4
ROBERT KERTZER, professor of kinesiology
Distinguished Professor

6
ELIZABETH L. CREPEAU, associate professor of occupational therapy
Outstanding Associate Professor

8
JU-CHIN HUANG, assistant professor of economics
Outstanding Assistant Professor

10
KEVIN M. SHORT, associate professor of mathematics and statistics
Excellence in Research

12
ROBERT O. BLANCHARD, professor of plant biology
Excellence in Public Service

14
JOHN P. RESCH, professor of history, University of New Hampshire at Manchester
Alumni Affairs Award for Excellence in Public Service

16
P.T. VASUDEVAN, associate professor of chemical engineering
Excellence in International Engagement
and Jean Brierley Award for Teaching Excellence
TEACHING EXCELLENCE

18
LINDA ALDRICH-NOON, assistant professor of recreation management and policy
School of Health and Human Services

20
RICHARD W. ENGLAND, professor of economics and natural resources
Whittemore School of Business and Economics

22
JAMES F. HANEY, professor of zoology
College of Life Sciences and Agriculture

24
RITA A. HIBSCHWEILER, associate professor of mathematics and statistics
College of Engineering and Physical Sciences

26
ANN L. LORANGER, associate professor of education
College of Liberal Arts

28
SUSANNE F. PATERSON, instructor of English
University of New Hampshire at Manchester

30
DONALD W. QUIGLEY, professor of forestry technology
Thompson School of Applied Science

32
PATRICIA A. SULLIVAN, associate professor of English
College of Liberal Arts

34
DEBORAH WINSLOW, associate professor of anthropology
College of Liberal Arts
Bob Kertzer is not your typical PE teacher. Sure, his colleagues call him a “gym rat” and joke that his one and only “computer” is a yellow legal pad. It’s not too far-fetched to imagine him in the field house directing calisthenics, clipboard in hand, whistle clenched tightly between his teeth.

But, it’s because of Kertzer and his pioneering work at UNH that we have a new respect for that PE teacher, not to mention a greater appreciation for the place of exercise in our daily lives.

Kertzer, recently retired professor of kinesiology, possesses the gift of reinvention, a gift he put to great use in his 36 years at UNH. Soon after he arrived in Durham in 1965, fresh from his doctoral work at Michigan State, Kertzer led the effort to transform the physical education department with its “teacher prep” model to a program of professional preparation grounded in the biological and social sciences.

“Research, that was his real game,” says long-time friend and Professor Emeritus Don Murray. “He led the way.”

Kertzer recalls that the department was very different back then. “Really, it was two departments—men and women—studying separately. The program was not academic—, but activity-oriented.”

The push to reinvent physical education, which ultimately became kinesiology in 1995, put UNH ahead of the curve, says Kertzer. “We became academically very respected. We were one of the first universities to develop beyond preparation of phys. ed. teachers. That enabled us to offer these careers [in physical education] to academically gifted students. It was a real turning point. I’m very proud of the effort we made.”

Kertzer and his students were soon touting the benefits of exercise to members of the University and Seacoast communities. The University’s employee fitness program has been going strong for two decades and the Cardiac Rehabilitation Program, once a novelty, became a model for similar programs nationwide.
“It occurred to me as a physiologist that exercise might be very valuable to cardiac patients—a real innovation in 1978,” says Kertzer as he explains that bed rest was the standard prescription for cardiac patients. “Not only were we doing patients no good, we may have been harming them.”

Today, thanks in part to Kertzer and his students, cardiac patients can expect to be exercising soon after heart attacks or surgery—often before they even leave the hospital.

“The most wonderful thing about the program,” says Kertzer, “is that it provides undergraduates with a great clinical experience. Every exercise science major is required to spend half a semester in the program.”

This devotion to the student experience has been a hallmark of Kertzer’s career. He speaks enthusiastically of a just-published paper by a former master’s student and of graduates who have gone on to establish international reputations.

“I don’t fancy myself as complicated,” he says as he tries to explain his classroom success. “To sustain my enthusiasm, I remembered the impact that dedicated and caring professors had on me. I said to myself, ‘Never forget that. Offer it as a model.’”

So, what does a master teacher do in retirement? Reinvents himself, of course. Since leaving Durham for Tucson last December, Kertzer and his wife Joyce have taken up tennis and hiking. They’ve hiked some 250 miles and are now planning a trip to Australia and New Zealand.

Kertzer will be back in Durham before then. The School of Health and Human Services is planning to rename the exercise physiology lab in his honor. And, of course, he’ll drop by the Bagelry for coffee with former colleagues Don Murray and Mike McConnell.

“I miss his 11 Brooklyn stories retold 1,318 mornings for a total of 14,498 times,” joked Murray on the occasion of Kertzer’s retirement. “I miss listening to someone who cared about his university so much . . . who celebrated his students, who always knew their names.”

—MIKE JONES, University Publications
For an occupational therapist, "occupation" means more than what you do at the office. It's everything you do that defines who you are: cooking, reading, gardening, bicycling. A therapist's goal is to help people to continue doing the things they want to do.

"We are most concerned with what people do every day," says Betty Crepeau, associate professor of occupational therapy. "My mother had a stroke that affected her eyesight and kept her from sewing and cooking. She loves to be busy, and now she's occupationally deprived. A therapist's goal is to figure out ways for someone like my mom to do the things that are important to them or to find something else that will substitute."

To that end, Crepeau tells her students, a therapist must understand a client's life story. "All of our experience shapes who we are and what we're interested in doing," she says. "So does the place where we live. I'm trying to work out what it's like to live in a place for a long time. How does living in a particular place help to shape people's lives from an occupational perspective?"

Crepeau's research has taken her to Stratham, where she and five students spent a year interviewing six elderly residents, exploring their day-to-day experiences. The oldest participant, Margaret Pearson Tate, was born in Stratham in 1907. The youngest, James Scamman, was born there in 1932. Their lives tell a story of a farming village that was once poor and isolated but changed over the course of a century into a wealthy suburban town. "Their understanding of Stratham runs deep within their spirits," Crepeau says. "They are insiders in a way that those of us who have moved several times in our lives just cannot understand."

Poverty was common in Stratham years ago. Everyone Crepeau and her students interviewed spoke about being poor. "There was no cash, but you had food, clothes, and a house, and everybody heated with wood, so you didn't have to pay for oil," Betty Batchelder, a resident, told one of the students.

Along with poverty came hard work. "I worked at home all the time. I had to get up in the morning and help milk the cows, and we had to bottle the milk and then
Elizabeth L. Crepeau, associate professor of occupational therapy, School of Health and Human Services

deliver it," Bob Berry, another resident, related. "I would come home and get the silage down every day and do other stuff. I was never let off the hook."

Some of the elderly residents have found it difficult to accept the town's rapid growth in recent years. "It's hard to watch," Batchelder said, noting that houses for newcomers now occupy the fields where she picked blackberries and tended her father's cows.

Over the next few years, Crepeau plans to interview additional Stratham residents each semester. Her goal is to develop a more comprehensive understanding of the town, its development over the past century, and how these changes have influenced the day-to-day activities of its residents and the meaning they make of their lives. "Having students interview the townspeople honors their lives," she observes.

For Katie Joyce, a senior from Manchester, the Stratham project was a window into a world she had never experienced. "I interviewed Marjorie Goodrich, who has lived in the same house for her entire life," Joyce explains. "It gave me a different perspective and made me more sensitive to the elderly. It really helped me to understand how important an occupation is to an older person."

Joyce also appreciates the way Crepeau involved her students in the study. "She treated us not just as students, but as future professionals, as peers. She's always interested in students' suggestions, so you feel she's really listening and caring. I've been fortunate to have her for a teacher."

—MAGGIE PAINE, UNH Alumni Publications
What environmental economist Ju-Chin Huang seeks is almost invisible—the value of beach sand, clean water, pure air—and vastly important.

Her field is called nonmarket valuation, and it is her consuming interest. Certain goods—endangered species, state parks, or beach quality—don’t have a price, but they have an economic value. What’s the economic value of having a state park instead of a subdivision?

In general, Huang explains, there are two methods for determining nonmarket valuation. “In the direct method, you just ask people how much they’re willing to pay. For a state park, how much will they pay to go there? For a spotted owl, how much to save its habitat?”

Regarding the owl, people may say yes to five dollars but not to fifteen, so, she says, “the answer is in between, and you analyze the intervals and tie them to characteristics like income level, gender, location. Eventually it’s a cost benefit analysis and results in a dollar amount.”

The indirect method studies the consumption of private goods. The housing market, for example, becomes an indirect method to help researchers know how property values are affected by highway noise.

Huang lives about a mile from a highway herself, in Newburyport, Mass., with her economist husband Gregor Brown and their gray tabby cat, “Hicks,” named after Sir John R. Hicks, the 1972 Nobel Laureate in Economics.

She grew up in Taiwan and went to National Taiwan University; she has a Ph.D. in economics and statistics from North Carolina State University. Huang has been with the Whittemore School for three years.

Directly and indirectly, her research provides information that is useful to policy makers—information that can be controversial because it may influence decisions. In a pilot mail survey last year for an on-going project, Huang sent questionnaires to random residents of New Hampshire and Maine seeking their views on the costs and effects of beach erosion control methods. “The coastal line naturally moves inland, but because of human activities along the
coastal area, we try to stop that," she says. "So there's a conflict between human activities and nature."

After the survey went out, Huang was interviewed by newspapers and National Public Radio. Though she occasionally finds herself at the juncture between interests, Huang is resolutely neutral. "I'm an academic researcher, not a policy maker," she says. "But I'd like to make a difference in terms of policy making. What I'm interested in is just naturally tied to environmental policies."

As a teacher of economics, Huang is rigorous and organized, expecting the best from her students. "She really made us work hard, but she did that for a reason," says Melissa Hebert '01, who studied introduction to econometrics with Huang. "She wanted us to take as much away from the class as possible."

Huang's model as a teacher is her mentor at North Carolina State, environmental economist V. Kerry Smith. "He is involved in so many projects," she explains, "but he always makes time to talk to his students."

And Smith speaks as highly of her. "Graduate students like Ju-Chin keep me enthusiastic about teaching!" he says. "She took several of my classes and, in each case, used her class paper as an opportunity to do some genuinely new work. Many of those papers have now been published."

She is "the absolute ideal of what a professor can be," comments Huang's colleague, economics professor Karen Conway. "As a new faculty member, she has reached levels in her teaching, research, and service that would be difficult to meet for many tenured faculty, who have taught for years."

—MARY PETERSON, University Publications
Sound blasts from the computer's speaker like water from a fireman's hose. Within the onslaught there are flashes of the familiar—a heavy rain, air escaping from a balloon, and the rhythmic whine of old windshield wipers. Kevin Short has constructed this sound file as an example of what he calls "raw chaos."

Next, the speaker emits the courtly sound of a 16th-century harpsichord piece, complete with counterpoint, 32nd notes, and trills. This, too, is the sound of chaos—tamed by Short. An associate professor in applied mathematics, he has mastered the mathematics of chaos theory for a broad range of purposes that could have a major impact on the networking and telecommunications fields.
The University has set up its first spin-off company, Chaoticom, to develop and market the new technology.

Using mathematical equations, Short can produce drastically compressed audio, video, or image files. That's because the mathematical information needed to produce the pattern of pixels in an image takes up much less space than the bits and bytes now used to specify every pixel on a computer screen. Imagine downloading a feature-length film from the Web in a few minutes or storing 1,000 hours of music on one CD.

Chaos theory, with its reliance on differential equations and nonlinear math, can be difficult to fathom. Mathematicians define chaos as behavior that falls somewhere between the periodic and the truly random.

"Chaotic systems—like the weather—are predictable in the short term, but not in the long term," says Short.

Perhaps the most famous part of chaos theory is the Butterfly Effect, which illustrates how a small change in the beginning will produce great differences in the future. Here's the analogy: A butterfly flaps its wings in China today, and, theoretically, causes a major storm in the United States next year.

"In our work," explains Short, "we have had to walk a tight line between controlling and reducing large-scale long-term changes while still allowing the system to produce wildly varying patterns or waveforms."

Short began this line of research when he received grants from the National Security Agency to test encryption systems based on chaos theory. He cracked every system he tested but realized that the security flaws could be fixed. He and mathematics graduate student Andy Parker devised a more secure chaos-based encryption scheme.

They easily recognized the sound of a harpsichord.

"That's when I knew that this was not just a limited project, but something that could have profound effects," recalls Short.

Chaoticom investors have high hopes that Short's invention could be very profitable. All profits will be shared with the University, Short, and his former students. Whatever the results are, Short looks forward to returning to the classroom after taking a leave of absence to start the company. No doubt he will find a few more students who want to be challenged.

—VIRGINIA STUART, College of Engineering and Physical Sciences

Kevin M. Short, associate professor of mathematics and statistics, College of Engineering and Physical Sciences
Bob Blanchard's "altruistic streak" can best be explained by a story he heard from fellow UNH plant pathologist Avery Rich.

"Avery told a story about sitting down to Sunday dinner many years ago when there was a knock on the door. It was a farmer from down the road holding a dead plant, needing advice. He said to Avery, 'I know you're in the middle of Sunday dinnah, but this is what I'm paying you for.'"

That's how Blanchard has always viewed his public service at UNH. "I believe we should make UNH better in the eyes of those we're serving."

The greatest number of people who have benefited from Blanchard's help likely are thousands of UNH students, for his service was not limited to students in the College of Life Sciences and Agriculture as associate dean for almost 13 years, but to students across the disciplines, from athletes to undergraduates living in residence halls.

Blanchard worked tirelessly with associate deans from the other schools and colleges to improve the academic landscape at UNH. The group revamped a myriad of activities, from students' first experience at UNH to their last moment, making First-Year Orientation focus more strongly on academics to making Commencement more personal for graduates and their families.

"I can think of no other colleague who shares his grasp of this campus and holds so dear the precious vision of this place," says Ted Kirkpatrick, who served as associate dean of liberal arts when Blanchard served, from 1984 to 1995.

As a member of the Academic Standards and Advising Committee, Blanchard was involved in the review of hundreds of petitions from students seeking variances in academic policy, usually related to "predicaments."

"Many of those cases were difficult," Blanchard acknowledges. "The most rewarding involved students who were suspended, went home kicking and screaming, but when they came back, indicated that the suspension was the best thing that could have happened to them."

"It wasn't always pleasant dealing with students who forgot why they were here, but it was all worthwhile when they succeeded, hopefully from accepting a few words of advice from someone who really cared about them."

One was his own daughter. "I'll never forget that day when her grade report showed up on my desk with the others who were on shaky academic ground," he says. "But she got the same letter that everyone else got, only I signed it: 'Dean Dad.'"

Blanchard made that decision based on an experience he had had
as a kid, when his father, who drove a school bus part-time, kicked his son, Blanchard’s brother, off the bus for roughhousing.

“We were about two miles from home, and my brother wouldn’t stop fooling around, so my father pulled off the road, opened the door, and told my brother ‘Walk home.’ That left a big impression on me,” he says, “and an even bigger impression on my brother. Neither of us ever fooled around on the bus again. So I did that for my daughter, hoping it would have the same effect.”

It did. Four years later, Dean Dad handed a diploma to a young woman at Commencement who was graduating with a 3.5 G.P.A. “Thanks, Dad,” she said.

Blanchard’s public service extends to all corners of the state, from serving on the board of directors of the New Hampshire Science Teachers Association to fielding a phone call from an anxious mother who suspected her child had eaten a poisonous mushroom. With a Ph.D. in mycology, Blanchard is one of only a few people in the Granite State who is trained to identify poisonous mushrooms.

He also works with high school teachers around the state to facilitate students’ transition from high school to college. “I believe it’s important to have conversations with teachers about the University’s expectations versus high school preparation, not just for academic content but for the enormous social change of going to college.”

And he likes to work with younger students as well. “I’m one of the few guys a kid will meet who will say to him or her, ‘If you want to grow fungi in a petri dish, just let me know.’”

— Kim Billings, UNH News Bureau
From the fourth floor board room of Citizens Bank in downtown Manchester, Professor of History Jack Resch can see a panorama of the city stretching westward.

For Resch, the view is multilayered, although he conceives of it as one big picture.

Nearby are his home, his place of work—the University of New Hampshire at Manchester—and many of the nonprofit and civic organizations that he has served for decades. Just blocks away are the downtown YMCA, Manchester's new Mill Yard Museum, and Child and Family Services of New Hampshire.

To the north is Concord, the state's capital and home of the New Hampshire Humanities Council. As a longtime board member of the council, Resch has helped bring to the state such programs as the "Philanthropy" series and the lecture/discussion series, "Choices for the 21st Century."

To the west is Peterborough, the site of Resch's historical research for his most recent book, *Suffering Soldiers*, that leading historian Charles Royster called "an important [and] original study."

On this June afternoon at Citizens Bank, Resch, a gifted and seasoned public historian and teacher, will facilitate a discussion on the history and traditions of American philanthropy. The program is sponsored by the bank and the New Hampshire Humanities Council.

In this the "Golden Age of Philanthropy," the need to understand these issues has never been more critical. A recent study estimates that charities could gain up to $25 trillion in bequests during the next 50 years.

Present today are 35 distinguished guests who represent the leadership of 20 nonprofit state organizations that deliver essential social and cultural services to the state. Resch knows that for this audience, understanding the historical strengths of American philanthropy is pragmatic.

Completely at ease, Resch surveys the board room. He begins: "What is the difference between charity and philanthropy?"

"Charity is giving to alleviate suffering," according to one participant.

"It's a religious obligation," suggests another.

"Philanthropy, on the other hand," someone comments, "is giving to promote change or reform."

Resch clearly enjoys this give and take and guides
it skillfully through references which include works by John Winthrop, the first governor of Massachusetts; Alexis de Tocqueville; and Andrew Carnegie.

“de Tocqueville’s fear for American democracy,” says Resch to the guests, “was individualism or self love. He reasoned that when democracy becomes atomized, it loses empathy and community. de Tocqueville thought that America would lose its soul if it should lose its enthusiasm to create civic associations.”

In a vivid analogy, Resch describes the random but pervasive work of nonprofits in this country. “What we have in this country might be seen as a great Jackson Pollack painting of communities,” says Resch.

His description illuminates a vital component of democratic empowerment: a spontaneous, heartfelt belief that one can make a difference. As the guests leave, they talk with each other about the discussion, their organizations, and what they need to do next.

And for Resch, too, these values are key. Charles Bickford, former director of the New Hampshire Humanities Council, recalls Resch’s work for the council’s first-ever fund-raising campaign. “We exceeded our goal,” says Bickford, “and the campaign was just for programming. Usually those dollars are very hard to get. As a board member, Jack brings a wonderful sense of humor and a scholar’s focus and attention to the work at hand.”

Recently, Resch volunteered as the historical consultant and contributor for Child and Family Service’s published history, *No Higher Calling*, an account of its 150 years of service.

“Jack’s historical understanding also carried forth into present day organizational issues,” says Mike Ostrowski, president of the statewide agency that serves abused and neglected children. “He has the talent to challenge your thinking while being supportive of your effort.”

—CARRIE SHERMAN, University Publications
Sometimes P.T. Vasudevan sounds like a philosopher. “Nothing in life is linear,” he says as he explains the variables involved in manufacturing—pressure, temperature, concentration, liquid level.

“It could be a nuclear power plant or integrated circuit manufacturing or pharmaceutical manufacturing. Or you could be brewing beer,” says Vasudevan. “Whatever the process, it involves variables that need to be carefully controlled.”

Future chemical engineers learn to manage these variables in the process-control course Vasudevan teaches each spring. One afternoon late in the semester, he and two students huddle in front of a computer in the lab. A screw-terminal accessory board rests in his hands as he explains the different inputs, the multiplexer, the
transducer, the valves—all the hardware involved in controlling liquid levels. Behind him a giant Plexiglas column is filled with bubbling water. As he talks, the students scribble in their notebooks. Suddenly the lecture stops.

"Do you understand what I am saying?" Vasudevan asks.

If there is a single secret to his teaching success, it is embodied in this moment. He wants to be sure his students grasp the principles behind his explanations. So he poses the critical question, the one that opens the way for students to respond with their own questions. And he asks it over and over again as he teaches.

"He was genuinely eager to answer our questions," says Lynn Walker, who took two of the very first courses Vasudevan taught and is now an assistant professor in the chemical engineering department at Carnegie Mellon University. "After teaching a sophomore course for the first time, I truly appreciated just how much Dr. Vasu achieved."

Dan Horan, a senior chemical engineering major, has taken thermodynamics, kinetics, and biochemical engineering, plus an independent study, with Vasudevan. "Dr. Vasu is able to tread that fine line," says Horan. "He challenges students to a degree that they don't feel overwhelmed, but they still feel challenged."

Vasudevan's enthusiasm for putting chemical engineering principles into action is at the root of the learning opportunities he cultivates with industry. He and his students worked with one company to test polymers for molded trays to hold surgeons' tools. Since the trays must be sterilized before every use in the operating room, Vasudevan and his students put each polymer sample through 1,000 cycles of sterilization—1.5 hours per cycle.

The labor-intensive undertaking paid off especially well for one student, who found an excellent job when he graduated. "He had an understanding of polymers that he otherwise wouldn't have had," says Vasudevan, who sees these first steps into the job market as an extension of his role as teacher. "If I put them in touch with a job, and they get hired, I believe they should interview other students and keep the momentum going," says Vasudevan. "They've been very good about this."

Vasudevan's support of students beyond the classroom extends across national boundaries. In recent years, he has developed an ongoing collaboration with colleagues in Spain at the Institute of Catalysis and at Salamanca University.

In 1999, Vasudevan sponsored two juniors to participate in summer research projects in Spain, working out all the details of their stay from project identification to housing.

When the students presented their research results last year at a gathering of the American Institute of Chemical Engineers, one of them, Aaron Tomich, won first prize. An award-winning student, coached by an award-winning teacher—apparently some things in life are, in fact, linear.

—SUKI CASANAVE, College of Engineering and Physical Sciences
Think about a time when someone took an interest in you. Remember how he or she asked questions about your ideas for a project or solicited your thoughts on how something should be done? Remember that college adviser who believed in you enough to sign the independent study form or recommend you for a job? Perhaps you stayed in touch over the years and that adviser, that professor, became your mentor.

Linda Aldrich-Noon treasured her rich experience of being mentored at UNH so fondly that she returned to the Department of Recreation Management and Policy—with the encouragement of her former adviser and mentor Lou Powell—to serve as project coordinator for a federally funded grant program training therapeutic recreation students to work in public school systems and to teach as an assistant professor.

“When I did my internship at Maine Medical Center, Lou was always very accessible and interested in what I did. Even after graduation, she remained interested, calling me about jobs,” says Aldrich-Noon. “I try to do that for my students.”

In the classroom, Aldrich-Noon rarely sits still for long. As she moves around the class, she encourages students as they prepare for their 14-week summer internships. She reminds them to create challenging learning opportunities for themselves and to keep up the paperwork and reports for professional certification.

“Work on your learning edge ... push yourself,” she exhorts the group getting ready to go out into “the real world.”

Looking over her wire-rimmed glasses, she listens intently to their questions and is quick to give a ready smile. She fires off answers at highway speed, packed with just the information the student requested. She exudes a sense of competence “It’s our responsibility to advocate in your best interests,” she tells her students.

“She’s very open and easy to talk to, wants to know what we think about things,” notes senior Kate Bunn. “I like her—she’s really there for us.”

Junior Jamie Nancarrow observes, “She’s really in with the students and knows everyone. She’s awesome. She gets to know us and we get to know each other. I feel very prepared for my internship.”

For Aldrich-Noon, it’s exciting to see how the
students change during their internships. "When they come back, they're really different. They're young, emerging professionals," she notes with a smile. "Because of the internship, I have to know them beyond their ability to complete classroom assignments. It's my favorite part of my job."

Growing up at the Cardigan Mountain School in New Hampshire, Aldrich-Noon took full advantage of the wide-ranging recreation program there and knew early on that she would always stay in the recreation profession. Skiing, swimming, and anything related to boats became her passions. For five years, she worked at Stratton Mountain as a ski instructor and developed a new program there to introduce skiing to people with disabilities.

"I loved it," she says.

When Aldrich-Noon came to UNH, the Department of Recreation Management and Policy was just starting up under the direction of Powell. After she graduated, Aldrich-Noon continued to work in hospital rehabilitation, using recreation methodologies to help people with cognitive, mental, and physical disabilities realize their full potential. While working in her field, she completed graduate studies at Boston University and began teaching part-time in higher education.

When Powell called and asked if she'd come back to the department to teach and coordinate the program's internships, at first, Aldrich-Noon wasn't sure. The change would mean a substantial salary cut and a move from the Boston area she enjoyed. But, as Powell talked with her about the rewards of working with students, she began to think it was time to give back.

"I like the balance in my life now," reflects Aldrich-Noon, "and I still look up to Professor Powell."

—DENISE HART, Office of Sustainability Programs
Economics is a useful tool for figuring out what makes society tick, says Richard England, and “how things work” is definitely a theme when he teaches the introductory course at UNH’s Whittemore School.

“I love to put things together, take them apart and understand how everything fits,” England says.

Studying economics with England is a little like watching a painter, suggests one of his students. He will sketch a few ideas in lecture, offer facts “in a very precise manner,” then ask a provocative question, recalls Momin Khan, a 1986 Whittemore School graduate now back to pursue a master’s degree. “After he shows us certain lines, he’ll add color,” says Khan, continuing the metaphor, “but we are still wondering what point he is trying to make.”

Finally, England fits the pieces together—“tons of information, some key questions, an overall theory—and suddenly there is a picture,” Khan says. “You are left with two or three very strong images, and the solid facts to back them up. He is like a painter or a puzzle maker. There’s a real skill in that; it takes a lot of thought and care, almost artistry. I think you have to love your work to do it so well.”

Even the cartoons on the bulletin board outside England’s office resonate—“You are here,” says an arrow pointing to the Milky Way galaxy. “Knowing how we got where we are is important,” the professor believes. Like many good teachers, he’ll try a variety of approaches to make a point—assigning market simulation games, current events, television. He’s got a reputation for arriving in class with an armload of newspaper clippings, too. “I get my higher marks from students by being enthusiastic about my subject,” he laughs. “I guess that comes across.”

England simply acknowledges that students approach economics with the prejudice that the material will be boring. “I’m aware that I need to make a special effort.”

His goal, especially for undergraduates, is to prepare them to be active citizens “I believe in democracy with a lower case ‘d,’ and for it to work, people need to develop critical thinking skills,” he says. “Long after facts are forgotten, critical thinking allows us to make choices wisely.”
Richard W. England, professor of economics and natural resources, Whittemore School of Business and Economics

A city and country walker, perennial gardener, and lover of the outdoors, England—who is proud to call himself an ecological economist—advises both the Natural Resources and Economics graduate programs at UNH. As a doctoral candidate at Michigan, he spent a full year reading ecology and environmental research, so it seemed natural when England and the Society for the Protection of New Hampshire Forests won a grant to study how tax policy might help to preserve open space and rural lands in the state.

“I care a lot about making good public policy at the national, state, and local levels,” he says. “Economics provides the tools to help us know what to do as a society with issues like health and the environment. But then we need to act in order to make a difference.”

A midwesterner, England developed an appreciation early for how “the System” works—his mother encouraged him as a boy to watch congressional hearings on television. Plus, an “outstanding, dynamic, and engaging” economics teacher at Ohio State showed him how to “explain things in the world.”

In Durham, his home for the past 30 years, England belongs to a men’s reading group, where a recent favorite was Jared Diamond’s Guns, Germs, and Steel. It combines economics, genetics, anthropology, geography, politics, and more to explain human civilization. “It’s right up my alley,” chuckles England, “understanding how things work, and how we got where we are today.”

—Janet Lathrop, UNH News Bureau
James Haney can't leave well enough alone, particularly when he sees a way to make life more interesting. When a doctor advised him to spend 20 minutes on the treadmill each day, Haney returned with a counterproposal. What if he were to race through his weightlifting and calisthenics—would that be enough aerobic exercise? The doctor agreed.

A treadmill? For Haney? It never could have worked. A Pygmalion at heart, the professor of zoology's career has been distinguished by a willingness to embrace change. When he first came to UNH to teach freshwater biology 27 years ago, Haney's lectures came straight out of textbooks. Before too long, he dispensed with rote learning tools and let student excitement guide his teaching.

"Once a course is over," says Haney. "I always feel it could have been done better, and the next time I teach it, I try something different. I want to give students the opportunity to do things they haven't done before. That's when they are at their best, and it's much more interesting to me."

The annual waiting list for Field Limnology speaks to the success of this philosophy. Because of the intensity of the work and the cost of the equipment involved in a field study of freshwater habitats, Haney and co-instructor Alan Baker have to limit the course to 15 students each spring. Acceptance into the course is competitive and decided by academic record.

"For many students, this course is the highlight of their undergraduate experience, and they return to tell us so," says Baker, a professor of plant biology. "I attribute this mostly to Jim's incredible foresight. He has masterminded the course's evolution since the early 1970s."

It's an evolution that has matched Haney's changing philosophy on how science is conducted and taught. It is an exciting time to be a scientist, he says, now that "we are coming out of our pigeon holes—microbiologists, zoologists, resource economists, botanists, geneticists. Finding answers to fundamental questions requires an integrated approach as does teaching the next generation of scientists."

Which is why Haney decided to give his Field Limnology students an opportunity to integrate research, collegial review, and public service. Working with a local lakes association, each student designs a study to examine a water quality issue in a particular lake, pond, or stream. Students
collect and analyze data and write a manuscript, which they first submit to one another for an anonymous peer review, and later to Haney and Baker.

“Students like doing something that’s genuine,” says Haney. “This gives them the experience of investigating real problems and responding to critical review, just as they will have to do if they pursue a career in research.”

The professional quality of the students’ reports is such that Haney won’t allow them to sit in a corner of his office gathering dust. He found the funds to make them available on the World Wide Web and at libraries in the state, so the public can make use of data gathered by the students.

Alongside teaching, Haney is chair of the Department of Zoology. He is cofounder of the Lakes Lay Monitoring Program, a citizen-based research network that monitors the quality of more than 250 freshwater bodies throughout New Hampshire. He recently translated one of the textbooks used for his General Limnology course from its original German. He keeps an ambitious schedule, and often finds that he has more ideas than time to fulfill them. But he wouldn’t have it any other way.

“When I was in college, I thought a profession had to be serious business, and that one’s most passionate interests were best left as hobbies,” says Haney. “I learned the hard way [he explored chemistry, prelaw, and German before freshwater biology] that both work and hobbies should be fun. So, I always ask my students: If you could have as much fun as you possibly can—what would you do? Then I tell them they should do that for a living.”

—DOLORES JALBERT, University Publications
When mathematics professor Rita Hibschweiler describes her work, she could just as easily be describing a musician sitting down to compose or a poet sitting down to write.

"What I love about math, is that a person can use its beautiful language to figure something out," says Hibschweiler, whose expertise, complex analysis, is the purest of pure math—an engagement with the mathematical rules and functions of imaginary numbers.

"I can sit down with pencil and paper or just stare into space for long periods of time. After a while, I may understand something I didn’t understand the previous day. That is a thrilling feeling."

Hibschweiler holds enormous respect for her chosen discipline, as well as for those who undertake its rigors and challenges. It’s a respect she has readily extended to her students at UNH, with whom she has shared her love of math for nearly 15 years.

"I believe that the heart of good scholarship is to be proud," says Hibschweiler, "not of one’s own contribution, but of the entire community of mathematicians. Proud of being a part of such a creative community."

Professor Ken Appel, who chairs the math department, says that even students who do poorly in her classes respect her efforts and high standards. "Anyone who can give a course as tough as Rita’s and maintain the respect she gets has a unique talent," says Appel. "Students respect her for what they come away with."

When it comes to teaching her classes in Kingsbury Hall, Hibschweiler makes it very clear that the proof, so to speak, is in the pudding. "Teaching is all about the lesson at hand. Have you taught the material or haven’t you?" she asks.

And the answer?

"Rita’s course in topology—a high-level area of math that studies the properties of sets—helped me more than any course I’d ever taken
when I got to graduate school,” says Julie Raye ’97. Raye is now a Ph.D. candidate in applied mathematics at North Carolina State University. “Rita makes the subject comprehensible, but also challenging. She has a way of asking us to work hard, but also of giving us the opportunity to be successful.”

Brandon Michaud ’02 took Hibschweiler’s courses in Mathematical Proof and Real Analysis. “Rita’s very patient and thorough,” observes the math education major. “What we cover in class prepares us to be successful on projects, or on exams.” Michaud says he looks forward to the day when he will “share his love of math” with high school students.

Beside the material, students also remember certain human equations. “I make a great effort to encourage any hard-working student,” says Hibschweiler. She defines a good student as “one who loves math and is willing to work hard.” In that spirit, Hibschweiler does not evaluate solely on seeing the right answer written on the dotted line. Rather she evaluates a student’s overall effort. “Because mathematics is a language,” Hibschweiler notes, “the analysis of a problem counts, not just the answer. It’s a way of thinking.”

Hibschweiler says her proudest moments as a teacher come when former students stop by after a class, perhaps long after she taught them, to let her know that her teaching made a difference. “They ask me a math question, ask for a reference, or just let me know they think I did a good job,” says Hibschweiler. “I am touched by their sincere appreciation.”

—DAVID MOORE, University Publications
After more than two decades in the classroom, many teachers are planning for retirement.

Ann Loranger is no ordinary teacher. She had no plans to leave school; she was going back.

For years Loranger taught high school Latin and English in New Hampshire while she and her husband raised their three children. She came to UNH intending to get her master’s degree in the classics, but was steered toward the education department by a professor who knew she worked with high school students who couldn’t read. Soon after, Latin was eliminated from the curriculum where she taught and she started a secondary reading program. It was one of the first in the state and quickly became a model for other schools.

But Loranger still wasn’t done. She earned her doctorate at Boston University, writing her dissertation on study skills at the secondary level.

While on sabbatical from Sanborn Regional High School, Loranger accepted a one-year faculty replacement position at UNH in the Department of Education.

“Twas hooked,” she says. “I have such a passion for teaching and at that point in my career I was wondering how I could affect change. I realized then that it was by teaching the students who are going to go out and become teachers. When I studied to be a teacher at a liberal arts college, it meant taking two classes in my field and spending six weeks student teaching. I wanted to help ensure we get the best prepared people in our classrooms.”

At UNH that means a five-year program that culminates in a master’s degree and includes a full-year internship.

But at the end of that year, there were no open positions at UNH. So, Loranger taught elementary education at Notre Dame College for one year, then spent three years at St. Anselm’s in the humanities and education program. It was there that she got a call from a former student.

“She had seen an ad for a job she was sure was made for me,” Loranger says. And she was right.
The position as director of teacher education at the University of New Hampshire at Manchester was so suited to her that she will return to it this fall.

"I can't even imagine teaching not being a part of my life," she says. "I love the students, the interchange, the sharing of knowledge. I learn from my students. I never go in saying I have all the answers. I say we are going to learn from each other. That's why this award is so important to me. It gives value to what I do and love. When the dean's call came on my birthday, it was the best present I could ever receive."

Loranger is a role model for her students, as well as their greatest advocate. She goes to their weddings and their baby showers. She invites them into her home to share an Italian meal. She meets them at The Tin Palace to talk about teaching.

"Ann's availability, understanding, and wisdom are all attributes I hope to demonstrate in my own classroom," says one former student.

"She is a professor of education and life," says another.

"She is the reason I am a teacher today."

It is statements like these that she says keep her going.

"I think everyone who goes into education has had a teacher that influenced the decision," she says. "For me, it was my high school Latin teacher.

"Teaching is such an awesome responsibility," she adds. "It's very humbling. And if you do it the right way, teaching is the hardest job there is."

—ERIKA L. MANTZ, UNH News Bureau
Our buses destined for Shakespeare's birthplace still travel past Susanne Paterson's childhood home in the village of Warwickshire, England. "Growing up, the whole myth of Shakespeare was on my doorstep," recalls Paterson. "But I wasn't interested. I wanted to study something unfamiliar."

So Paterson earned a degree in comparative literature and German with minors in art history and American literature at the University of East Anglia, in Norwich, England.

At 22, she came to the United States to earn her master's degree and to see if she liked teaching. "In England, graduate students don't teach until they've almost completed their doctoral work," she explains.

From this new vantage point, she discovered her passion—Shakespeare. "I needed the distance from England to find Shakespeare," says Paterson. She also found that she liked teaching. Her dissertation, completed this year through the University of Texas at Austin, is on Renaissance drama and courtesy literature.
“The Renaissance is similar to the 21st century because people in certain social groups were very concerned with shaping their appearance for others,” says Paterson. “Courtesy literature was used by people to help them learn appropriate behavior for specific circumstances. The point was primarily to impress others, and the literature often emphasizes the importance of having this behavior appear ‘effortless.’

“The irony is that it takes a great deal of effort to pose,” she says with a laugh. “And, as soon as the rules are widely known, they change. I think of these books as a type of early ‘self-help’ literature.”

In 1999, Paterson accepted the position at the University of New Hampshire at Manchester because she liked the campus and the mix of traditional and nontraditional students.

“Most are first-generation college students as am I,” notes Paterson, who teaches early British literature, grammar—a requisite course for all teacher-education students—and writing. “These students work really, really hard.”

Last fall, Sarah Huot, a junior majoring in English, studied early drama with Paterson. Huot turned in her writing assignment the week before having her baby. She gave birth to Olivia on Monday and was back in class on Wednesday. “Susi is a great teacher,” says Huot. “She’s welcoming and I am able to call her and discuss assignments.”

Paterson’s assignments challenge her students with real-life propositions: “Analyze a painting at the Currier Museum of Art and write to the museum’s board of directors and persuade them to buy it.” Or, “Discuss a Spike Lee film and include this as part of a job application letter to him.”

Her innovative approach even applies to grammar. “I’ll teach the history of English grammar and discuss Elizabethan punctuation. We see that, in many ways, grammar and punctuation are quite arbitrary,” says Paterson. “But really we learn grammar through writing.”

This past semester her grammar students constructed educational Web sites on different topics, ranging from definitions of English idioms for ESL students to the use of writing portfolios in elementary schools. Paterson plans to make their sites part of an ongoing, educational Web resource to be included on the English program’s home page.

In part, Paterson’s teaching philosophy derives from her love of Shakespeare. “Drama is a bridge between literature and society,” says Paterson. “Its roots are in the communal experience. I always like to ask students, ‘What would an audience think about this?’”

But her philosophy is also informed by her parents’ lives. “My father was orphaned and had to go down in a coal mine when he was 13,” says Paterson. “My mother is German, and she was pulled out of high school during the Second World War to be a nurse at age 16. They were not able to complete their educations. I feel very fortunate to have been able to complete mine and, above all, to have a job I love.”

—CARRIE SHERMAN, University Publications
Two of New Hampshire's top industries—tourism and timber harvesting—have coexisted throughout the years, despite missions that on surface seem to be at odds with each other.

"Some people might say we're just lucky," says Donald Quigley, professor of forest technology in the Thompson School of Applied Science. "Or maybe people can make the right decisions on a small scale, when they own the land and are personally invested in it."

Over his 22-year career, Quigley has taught students and industry professionals how to make the right decisions.

A stalwart man of lumberjack stature, Quigley grew up in southern Pennsylvania, on the edge of Amish country. He says his family hunted and fished, and lived close to the land. It was, ironically, during infantry duty in the Vietnam War that Quigley figured out what he wanted to do with his life. He became fascinated with the jungle. When a buddy suggested he consider studying forestry, he says it was like "the clouds cleared a bit."

At the age of 22, he returned to the States and enrolled at the University of New Hampshire, earning both his B.A. and master's degree. Quigley made a name for himself on the University's Woodsman Team—going on to the professional world championship lumberjack finals later in his career—and pictured himself working in the logging industry.

"I had absolutely no inclination toward teaching," he says. "The Thompson School had an open teaching position in my area of interest and I applied on a whim. I still don't see myself as a professor. I'm more like a forester who teaches."

Quigley finds a bit of himself in his students. Some avoided academics when they were younger and see this as the last chance to make something of themselves. Others are second-starters who have raised families or are interested in new careers.

"Our students are special—highly motivated and full of hope," he says. "Sometimes they just need some kindling under them to create the heat."

Quigley says the most comfortable part of teaching is delivering the lesson plan. The challenging part is motivating students to question the material. His students often find themselves engaged in discussion with peers about the ethical issues involved in cutting down trees. It's the age-old loggers versus environmentalists debate.

"They ask me, 'How do you convince these people that logging provides many benefits?' 'How do you get heard?'" Quigley says. "There's a place at the table for differing opinions. The fact is, New Hampshire has a tremendous history of collaboration in this area—we're the second-most forested state in the country. But this doesn't get much press. Cooperation rarely does."

He hears similar questions when talking with industry professionals. "This is a group of proud, hard-working people, who believe that making a living off the land is their birthright," says Quigley. "They feel they are losing status in their community because of what they do."

In 1993, Quigley cofounded the N.H. Timber Harvesting Council to promote and protect the interests of the state's 1,400 loggers and log truckers. Sponsored by the N.H. Timberland Owners Association, UNH's Thompson School, and Cooperative Extension, the council leadership comprises independent contractors dedicated to ensuring that the harvesting of forest products remains a safe, environmentally responsible, and commercially viable land use.

"This group is amazing," says Quigley. "Men, who you could never imagine, have literally stepped forward from the cabs of their machinery to become lobbyists on their own behalf."

Quigley says one of the remarkable things is that the "movers and shakers" he meets are often former students. "These are special moments—when you get to see your students making real change."

—SHARON KEELER, UNH News Bureau
Donald W. Quigley, professor of forest technology,
Thompson School of Applied Science

material. His students often find themselves engaged in discussion with peers about the ethical issues involved in cutting down trees. It's the age-old loggers versus environmentalists debate.

"They ask me, 'How do you convince these people that logging provides many benefits?' 'How do you get heard?"' Quigley says. "There's a place at the table for differing opinions. The fact is, New Hampshire has a tremendous history of collaboration in this area—we're the second-most forested state in the country. But this doesn't get much press. Cooperation rarely does."

He hears similar questions when talking with industry professionals. "This is a group of proud, hard-working people, who believe that making a living off the land is their birthright," says Quigley. "They feel they are losing status in their community because of what they do."

In 1993, Quigley cofounded the N.H. Timber Harvesting Council to promote and protect the interests of the state's 1,400 loggers and log truckers. Sponsored by the N.H. Timberland Owners Association, UNH's Thompson School, and Cooperative Extension, the council leadership comprises independent contractors dedicated to ensuring that the harvesting of forest products remains a safe, environmentally responsible, and commercially viable land use.

"This group is amazing," says Quigley. "Men, who you could never imagine, have literally stepped forward from the cabs of their machinery to become lobbyists on their own behalf."

Quigley says one of the remarkable things is that the "movers and shakers" he meets are often former students. "These are special moments—when you get to see your students making real change."

—SHARON KEELER, UNH News Bureau
For a whole semester, Patricia Sullivan did her own homework. The English professor ventured into the wee hours of the morning, typing papers on topics she had chosen, questions she had posed, and discussions she had spearheaded in her honors course, Introduction to Prose Writing.

At the end of the semester, Sullivan wrote a letter to her students.

"I'd drag my weary body to bed and wonder what in the world I was thinking back in August when I typed that line in the syllabus that said I'd be writing right along with you. But looking back on my portfolio now, I have to say it was worth it."

Sullivan's investment of time, students say, is matched by her level of engagement.

She is one of three faculty members leading the Ph.D. program in composition and splits her course load of American literature, cultural studies, and composition between graduates and undergraduates. The hours she spends in the classroom rival those spent meeting with students individually for writing and dissertation conferences. She mentors new English 401 teaching assistants and supervises experienced T.A.s and composition instructors. In her department, she holds the record for directing the most Ph.D. dissertations, at least 12, in the last ten years, according to English department chair Rochelle Lieber.

"Students in English 401 and 501 frequently comment that they entered her class dreading to write," says Lieber, "but they leave with a newfound confidence and even a new love for writing.

"Pat is at the same time encouraging and ind, but also rigorous and tough. Students say that she is open and funny, that she makes herself available, and that she is excellent at giving constructive criticism on their writing."

Recently, Sullivan developed a literature course in contemporary nonfiction because she found it cobbled together with her interest in forms of personal writing.

"There wasn't any such course here," Sullivan says. "I had been reading a lot of memoirs—compelling, even haunting works—and was vexed with questions like the ones I put to the students. "Memoir—nonfiction—especially, is an up-and-coming genre. I had been teaching it as writing but not teaching it as literature."

Sullivan and her students read books such as Frank McCourt's *Angela's Ashes*, Mary Karr's *The Liar's Club*, and Caroline Knapp's *Drinking: A Love Story*. The characters and their journeys prompted questions and
conversations. They raised the issues of choice, race, background, and identity. What kind of choice does a character such as Frank McCourt's mother have, Sullivan asked her students, as a poor, Irish Catholic woman running a household without enough money or support to raise her growing family?

"We would just get into those books," Sullivan says. "I never experienced those long periods of awkward silence, unless it was a contemplative silence. You could almost hear people thinking about those hard questions. We'd have these fascinating and fundamental discussions about where a choice takes us. From there, I like to ask students to examine their own lives and the degree to which they have choices."

She began by assigning response papers. She ended the semester by asking students to write memoirs. Their homework became her muse.

"I treat student writing as I would a work of literature," Sullivan says. "What can it tell me about our culture? If we take student writing seriously, I think it has at least as much to tell us as literature."

Bronwyn Williams, assistant professor at the University of Louisville in Kentucky, studied with Sullivan while earning his Ph.D. at UNH. Sullivan's probing questions, he says, were what led him to his degree.

"If it hadn't been for Pat, I would not have gone back to graduate school in the first place," Williams says. "I think she's brilliant intellectually, but, what I valued even more, was that as a teacher she would raise new questions for me and point out things I might need to work on but in a way that I'd be eager to get back to. I always left her office feeling there was more work I wanted to do."

—JENNIFER VENTO, UNH News Bureau
No challenge is too big for Deborah Winslow. Not even one from Richard Nixon and the Indian government.

In the early 1970s when she was denied her request for a visa to study the country's weekly market system, Winslow knew it was the president's involvement in the war between India and Pakistan that caused retaliation by the Indian government.

But instead of getting frustrated, she got busy. Putting aside undergraduate experience in India, a year of intensive language study, and guaranteed funding, she rewrote her dissertation proposal and worked the phones until she found an embassy that would welcome American researchers.

Twenty-seven years later, a small Sri Lankan potter village is her home away from home. She's studied the impact of changes in the national economic policy on the village, and will return soon to look at the consequences of the country's declining birth rate. Because public transportation is dangerous and unreliable, she rents a car when she's there and shares it with the villagers. It is her way of saying thanks, along with lending money and helping with basic first aid.

Winslow brings the same tenacity to her teaching. So when Robyn Vockrodt, one of her senior thesis students, expressed doubts about dowsing as a topic—the use of a divining rod to locate something, most commonly water—because she didn't have transportation, Winslow handed over the spare set of keys to her own car.

"Deb is more than just a professor," Vockrodt says. "You might laugh, but I mean it when I say she fixed my whole life in one semester. I had her spare set of car keys for the whole semester. Then I got stuck in my research, she would send me to her office to borrow a book. She always knows just what to say to keep you from giving up.

"Her expectations are high and I've had to work hard," she adds, "but she motivates you. You don't want to let Deb down."

And she doesn't let them down. When it came time to decide whether to continue working with her four senior thesis students while on sabbatical, Winslow says she never considered turning them over to another professor.
"When I've taken other semesters off and not had contact with students I got depressed," she says. "Going into the classroom can cure anything."

Nicole Soucy, another one of her advisees, says Winslow "really wants us to learn, and encourages us to take the extra step, do something you'd never do on your own. She's pushed me to get my thesis published, and I was joking around about wanting to send it to Renato Rosaldo, who's my hero. He's this famous anthropologist, and she just pulls out a pen and writes down his address for me."

Winslow has found a balance between nurturing her students and treating them like colleagues.

"Although I'm critiquing their work and pushing them, I think of them as able to read or do anything I can read or do. They are doing real research, finding out things that no one else has. Like Nicole. She spent a lot of time with a group of women in Nashua looking at their experiences as immigrants from Latin American countries. It's really good work."

Winslow is confident she has the best of both worlds.

"Anthropology is the chance to stand outside your own society, to see what you like and don't like, to see what it looks like to others," she says. "And when you're in a discipline that you love, what could be better than teaching it and sharing it with others. You have a captive audience and a chance to convince them that it's as great as you think it is."

—ERIKA L. MANTZ, UNH News Bureau
PHOTOGRAPHS

Pages 4-5
Photos: Doug Prince, UNH Photo Services

Pages 6-7
Photos: Doug Prince, UNH Photo Services

Pages 8-9
Photos: Ralph Morang, Ralph Morang Photography, Portsmouth, N.H.

Pages 10-11
Photos: Ralph Morang, Ralph Morang Photography, Portsmouth, N.H.

Pages 12-13
Photos: Lisa Nugent, UNH Photo Services

Pages 14-15
Photos: Doug Prince, UNH Photo Services

Pages 16-17
Photos: Lisa Nugent, UNH Photo Services

Pages 18-19
Photos: Lisa Nugent, UNH Photo Services
Pages 20-21
Photos: Lisa Nugent, UNH Photo Services

Pages 22-23
Photos: Lisa Nugent, UNH Photo Services

Pages 24-25
Photos: Doug Prince, UNH Photo Services

Pages 26-27
Photos: Doug Prince, UNH Photo Services

Pages 28-29
Photos: Lisa Nugent, UNH Photo Services

Pages 30-31
Photos: Ralph Morang, Ralph Morang Photography, Portsmouth, N.H.

Pages 32-33
Photos: Lisa Nugent, UNH Photo Services

Pages 34-35
Photos: Doug Prince, UNH Photo Services