

UMaine Today

CREATIVITY AND ACHIEVEMENT AT THE UNIVERSITY OF MAINE

MAY/JUNE 2004

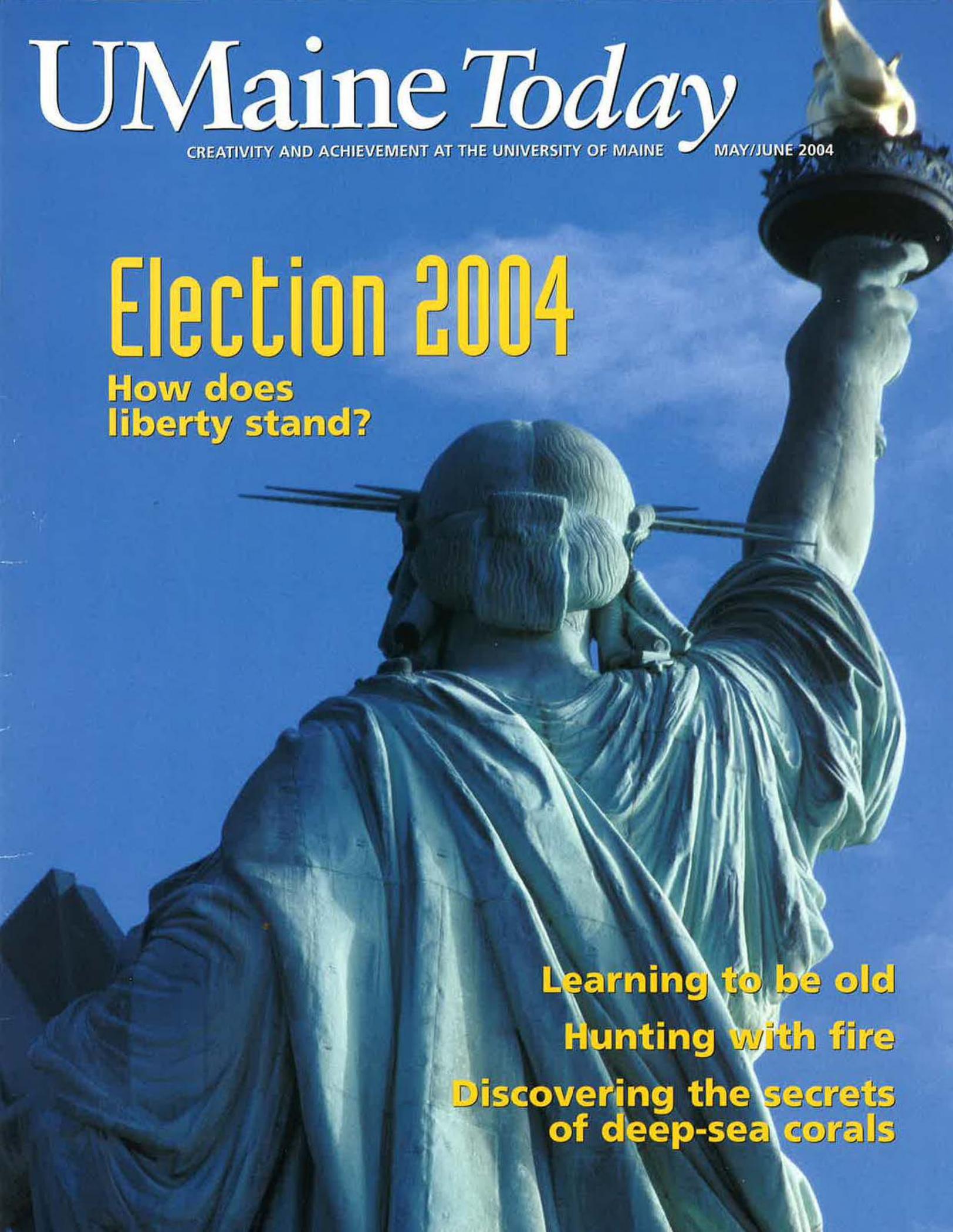
Election 2004

How does
liberty stand?

Learning to be old

Hunting with fire

Discovering the secrets
of deep-sea corals



From the President

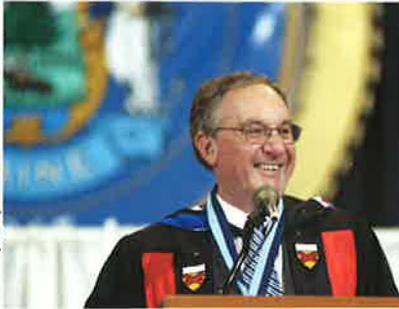


Photo by Toby Hollis

ANOTHER UMAINE COMMENCEMENT is upon us, bringing to a close an extremely eventful year at the university. Levels of success in the classroom, in the laboratory, and in the athletics arena have never been higher. Our friends have been generous, and government officials have done a great deal to protect us from the budget axe. Yet higher education across the country is in the midst of an almost unparalleled crisis — and UMaine is

no exception. Everyone, from students to professors to administrators to trustees, is engaged in a quest to find answers that will help us get through.

In March, the University of Maine System Board of Trustees announced a new draft strategic plan. For the University of Maine, the draft reaffirms our role as the state's leading public research university — Maine's only land-grant university and the only one to hold the top Carnegie classification of "doctoral research-extensive."

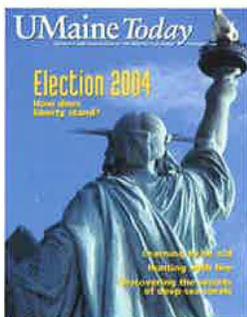
Everywhere I go, on and off campus, I hear about the vitality and excitement that characterizes UMaine. It has made us the state's university of choice and the university most engaged with the entire state, helping it to move forward socially, economically, and culturally. Priorities for higher education in Maine are part of our own strategic plan, including investment in Fogler Library, the Honors College, and graduate education.

Every legislator, governor, business leader, and citizen who has come to Orono to see our teaching and learning vitality, and our vast research enterprise, has come away with a deep appreciation for what we do here. We know, however, that we cannot stand still and must set our sights even higher.

Every major university in America is currently facing challenges almost unparalleled in history. Public disinvestment in higher education has generated a crisis that will take all of our ingenuity to resolve. Old approaches cannot be counted on to work any more; we must discover and embrace new initiatives.

In Maine, a serious effort to rethink public higher education has been taken by the System Board of Trustees. In these uncertain economic times, the University of Maine System must play to its strengths, and one of its foremost strengths is the University of Maine.

Peter S. Hoff
President



ON THE COVER: New and not-so-new cultural realities are shaping America's political climate this presidential election year. For perspectives on just how liberty stands in 2004, *UMaine Today* turned to researchers in political science, history and sociology to get their perspectives, based on their fields of expertise.



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Located in Orono, Maine, the University of Maine is the state's land-grant and sea-grant institution. UMaine serves its home state through its explicit statewide teaching, research, and public service outreach mission. Offering 91 bachelor's, 62 master's, and 25 doctoral degree programs, UMaine provides the most varied and advanced selection of programs available in Maine. The Carnegie Foundation for the Advancement of Teaching classifies UMaine as a Doctoral Research Extensive University, the highest classification.

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2 **Hunting with Fire**

Behavioral ecologists Rebecca and Doug Bird are looking for the basic clues to what it means to be human. To do that, the anthropologists study the rudiments of complex social arrangements and interactions, such as the division between men's and women's work, by living with the Mardu of Australia's Western Desert.



7 **Exceeding Expectations**

Cultural pressures and societal expectations tell us how and when we're "old." But Margaret Cruikshank, author of *Learning to be Old*, and Center on Aging Director Len Kaye take exception to the portrayals of aging that are all around us. They argue that adults need to age on their own terms rather than by society's definitions.



10 **Rockefeller's Views**

Fifteen years ago, Acadia National Park set out to rehabilitate its historic carriage roads that were designed and built by John D. Rockefeller Jr. Helping in that restoration effort every year since then have been some of the best aspiring foresters in the Northeast — UMaine students enrolled in forestry camp.



12 **Culture Shock**

U.S. presidential elections aren't purely politics. American culture also plays a role. A number of "new" cultural realities — from post-9/11 fear to hanging chads that shattered our blind faith in voting technology — are punctuating election 2004, giving voters even more to think about when they go to the polls.



18 **Old Growth Forests Under the Sea**

UMaine marine biologists Les Watling and Anne Simpson search for deepwater corals in hopes of unlocking their secrets. In recent years, researchers have found that corals are far more abundant in deep northern seas than anyone had expected. Now, the race is on to save them.



21 **Goals**

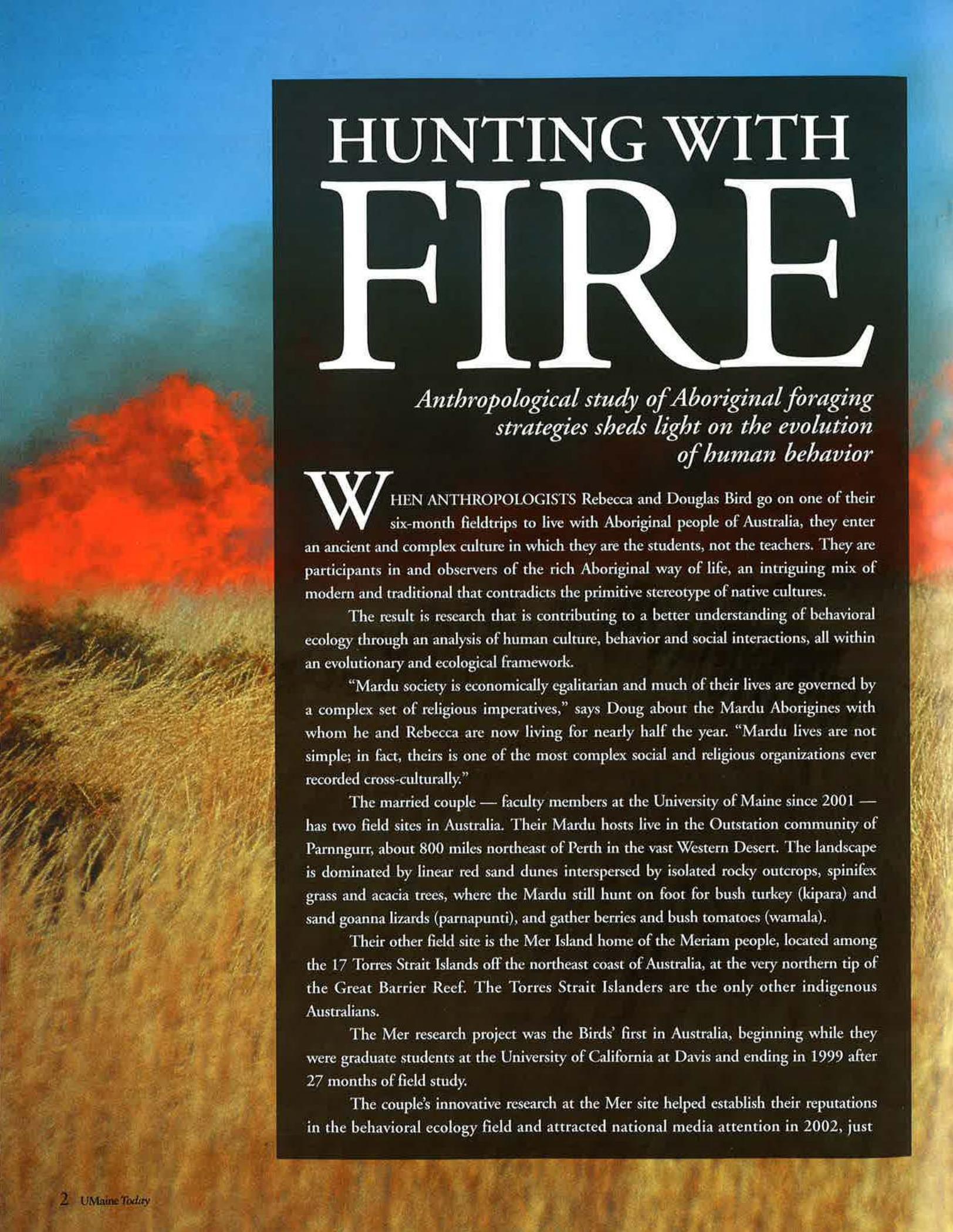
Black Bear hockey coach Tim Whitehead, who has led UMaine to two Frozen Fours in three years, has found the key to effective teaching in the classroom and the locker room.

17 *student focus* 22 *insights*

Research and Rounds
Better Building Products

Celebrating Settlement
Activism in Art
The Business of Homeland Security
Shooting for a Healthy Sports Experience
The Saucier Sisters

Studying Sherman Alexie
'I'll Take Food Science to Win'
Banding Together
Fast and Fuel Efficient



HUNTING WITH FIRE

Anthropological study of Aboriginal foraging strategies sheds light on the evolution of human behavior

WHEN ANTHROPOLOGISTS Rebecca and Douglas Bird go on one of their six-month fieldtrips to live with Aboriginal people of Australia, they enter an ancient and complex culture in which they are the students, not the teachers. They are participants in and observers of the rich Aboriginal way of life, an intriguing mix of modern and traditional that contradicts the primitive stereotype of native cultures.

The result is research that is contributing to a better understanding of behavioral ecology through an analysis of human culture, behavior and social interactions, all within an evolutionary and ecological framework.

“Mardu society is economically egalitarian and much of their lives are governed by a complex set of religious imperatives,” says Doug about the Mardu Aborigines with whom he and Rebecca are now living for nearly half the year. “Mardu lives are not simple; in fact, theirs is one of the most complex social and religious organizations ever recorded cross-culturally.”

The married couple — faculty members at the University of Maine since 2001 — has two field sites in Australia. Their Mardu hosts live in the Outstation community of Parnngurr, about 800 miles northeast of Perth in the vast Western Desert. The landscape is dominated by linear red sand dunes interspersed by isolated rocky outcrops, spinifex grass and acacia trees, where the Mardu still hunt on foot for bush turkey (kipara) and sand goanna lizards (parnapunti), and gather berries and bush tomatoes (wamala).

Their other field site is the Mer Island home of the Meriam people, located among the 17 Torres Strait Islands off the northeast coast of Australia, at the very northern tip of the Great Barrier Reef. The Torres Strait Islanders are the only other indigenous Australians.

The Mer research project was the Birds’ first in Australia, beginning while they were graduate students at the University of California at Davis and ending in 1999 after 27 months of field study.

The couple’s innovative research at the Mer site helped establish their reputations in the behavioral ecology field and attracted national media attention in 2002, just

A photograph of a Mardu woman standing in a field of tall, golden-brown grass. She is seen from the back, wearing a blue and white striped t-shirt and purple pants. She holds a long, thin spear horizontally across her back. In the background, a large fire with bright orange and red flames is burning against a clear blue sky. The fire appears to be a controlled burn, clearing the land.

A Mardu woman near Parnngurr Outstation prepares a nyurnma (a large burned patch). Such fires are used on a regular basis to clear off old-growth spinifex grass and increase the efficiency of searching for and tracking small game.

Photo by R. Bird

"You can't disentangle their daily lives from a complex set of ideological, mythical and religious beliefs about the landscape. Spots of ritual importance are linked by the paths of their 'Dreamtime' ancestors, and are associated with ritual ceremony. Going out and burning a patch of grass to catch goanna lizards has religious symbolism tied with their relationship to their ancestors and the beings that created their world."

Doug Bird

"We believe natural selection has designed humans to adapt, to make an appropriate response to environmental variability, and that response is not some link between genes and behavior."

Rebecca and Doug Bird





Two Mardu women hunt for parnapunti (sand goanna lizards, shown in the foreground) within a newly created nyurnma. Women often hunt in dune fields such as this one at Watanyaninka, near Parnngurr Outstation.

Photo by R. Bird

months after they arrived at UMaine, where Rebecca is an assistant professor of anthropology and Doug is an assistant research professor with appointments in Anthropology and the Climate Change Institute.

Their news? After carefully observing, recording and analyzing the foraging patterns and success rates of Meriam men, women and children gathering food on the reefs and in shallow coastal waters, the Birds made an intriguing discovery. Children as young as age 5 often are as adept at fishing with lines and spears as the most experienced adults. Only at tasks that require more physical size and strength, such as shellfish gathering, do the children differ in comparison.

The research called into question the traditional explanation for extended human childhoods, that children require prolonged learning to master the complex tasks and social interactions of adulthood. The Birds found that childhood is not so much about learning and practicing those tasks as it is about simply growing into them.

The Birds found similar results when studying the hunting strategies of Mardu children as part of their ongoing research on foraging dynamics. The Mardu at Parnngurr Outstation in the heart of the Western Desert live in a community of 70–100 people who were among the last Aboriginals to encounter Europeans in the 1960s. Their territory is about the size of Utah.

Parnngurr Outstation now has government-built facilities that include housing, community water, generator power, a school, medical clinic and general store. Despite the modern trappings and the availability of food to purchase, the Mardu adhere determinedly to their social roots and religious traditions. Ritual performance and narrative are constants in their complex set of religious and social obligations. In turn, their religion is intertwined with the land and its treatment.

THE BIRDS STUDY TRADITIONAL foraging activity under grants from the National Science Foundation and The Leakey Foundation, looking for clues to behavior patterns and their adaptation to environmental and social change.

This spring, Rebecca departed for Parnngurr Outstation on March 16, and Doug and their 6-year-old daughter, Sydney, left on May 1 to join her, with an expected return to Orono in mid-October. Their daughter first accompanied them into the field when she was 3 months old and has since traveled to Australia more than 10 times.

“Sydney loves living and playing with the Mardu kids,” says Doug, describing the Mardu’s “wonderfully free” childhood period known as ngulyi, which occurs between weaning and initiation into adult responsibilities and ritual training.

In the field this year, the Birds are joined by Chris Parker, an anthropology Ph.D. student at the University of Utah in residence at UMaine, and by collaborators from other institutions.

Rebecca and Doug go about their Mardu fieldwork with painstaking precision, using GPS receivers to pinpoint locations where food is acquired; conducting “foraging follows” in which they record every move of their subjects; walking transect lines on geographic grids and noting such variables as vegetation types and game tracks; and employing satellite photography for large-scale perspective. Their voluminous data are entered into laptop computers for later analysis.

The Birds are two of a handful of ethnographers who use quantitative focal individual follows to conduct their research, requiring them to camp the entire time they’re in the field. Even in the

Far left: A 7-year-old Mardu girl, towing her doll and wana (digging stick), hunts for winjyikiti (ridge-tail goanna lizards) at a rocky outcrop near Winukurrujunu, about 15 miles east of Parnngurr Outstation. Children learn their hunting strategies from other children, not from adults.

Photo by D. Bird

Left: Jinjuwirri (desert raisin) is a highly prized fruit, often dried in large batches in the desert sun. The plant is heavily dependent on human-induced landscape burning.

Photo by R. Bird



A Mardu man after a day of tracking kipara (bush turkey) near Papuyli, northeast of Parnngurr Outstation. Today, men usually use small-gauge rifles, but occasionally still carry spears, spear throwers and boomerangs.

Camp life on a cool winter day at Winukurrujunu.

Photos by D. Bird



permanent Outstations, the Mardu remain full-time campers, sleeping under the stars in the deep dark of the desert night.

Rebecca has been formally adopted into Mardu kinship, a rare honor for an outsider. In the field, the Birds live with the extended family of her Mardu “mother.”

In their work in behavioral ecology, a specialized subdiscipline within anthropology, their focus is on the interactions between humans and their environment, emphasizing the influence of social and geographical factors. “Behavior cannot be divided up into genetic and environmental components. It is always a product of the interaction between both genetic variability and variability in the physical, social and cultural environment in which individuals develop,” Doug says.

One focus of the Birds’ research is how gender relates to hunting and foraging strategies. For instance, the Mardu women primarily hunt smaller animals that are relatively easy to catch, such as goanna lizards. Often they use “mosaic burning,” a ritual use of fire designed specifically as strategy to increase hunting efficiency by allowing them to better spot the burrows of prey and evidence of tracks.

The men, on the other hand, hunt larger animals, like bush turkey and kangaroo, that may require days of tracking before they are killed.

The women’s hunting proves to be much more productive, with three days of hunting normally producing 45–65 pounds of goanna meat. The men’s hunting, however, may only produce one 13-pound turkey after a three-day chase.

Rebecca hypothesizes that some of the differences between the foraging of men and women may be related to the way that particular types of hunting can clearly display important qualities. It may be that sometimes men tend to hunt for attention rather than food, per se.

Men may gain status in the community because tracking the larger game gives them a way to demonstrate their skills and generosity (the larger game is shared communally, whereas individual families keep the smaller game they catch). “The men have cars and guns now, but there is still skill involved in tracking. For days on end, they can follow the animal and figure out what it did every single moment. It’s the demonstration of that tracking ability,” she says.

Doug says that while this research focuses on a small group of people, it is significant in that it ties in with a larger body of anthropological research concerned with the differences in the work that men and women do in all cultures.

“We’re looking at basic clues about factors that influence something as important as gender — the factors that make up what it means to be human. We’re finding that even in materially simple circumstances, it’s not just about the food. It’s often as much about complex social arrangements and complex social interactions,” he says.

*Margaret Nagle
and contributors*

More information on the research of Rebecca and Doug Bird is on the Web

www.umit.maine.edu/%7Erebecca_bird/research.html

Monday morning just after 6, Katherine Musgrave is on the phone taping her weekly — always unrehearsed — radio segment on nutrition that airs on WZON. She's already done her daily 40-minute walk and 15 minutes of stretches, so it's on to one of her two offices where she works part-time providing medical nutrition therapy.

This day, Musgrave's got to be at the YMCA by noon, where she's teaching a seven-week nutrition class. Later, she'll be in her office at the University of Maine overseeing the coursework of nearly 300 students enrolled in her Web-based introductory class on food and human nutrition. She's also got to jot notes for two talks she's giving this month to community groups.

When the weekend comes, she and her husband, Stanley, may go ballroom dancing or play bridge.

Katherine Musgrave is 84.

To those who know her, Musgrave is an exceptionally enthusiastic champion of nutrition and good health. A remarkable role model and teacher. But like so many of her peers nationwide, Musgrave is not an older adult who is "keeping busy"; she's a person aging on her own terms, focused on quality of life.

"The key to living long is deciding on some priorities, not fretting

about fitting into the mold," says Musgrave, UMaine professor emerita of foods and nutrition. "We need to put aside fears of what we can't do and realize that, without the rigid responsibilities we used to have before retirement, we're now free to explore whatever we enjoy. That's been the answer for my old age. For me, freedom is in teaching; for my husband, it's being at home reading, and working in the yard and garden. Every one of us should be exploring where we want to be in old age."

Winston Churchill once said: "We are happier in many ways when we are old than when we were young. The young sow wild oats. The old grow sage." Today, that should be truer than at any time in human history, says Lenard Kaye, director of the University of Maine Center on Aging. But for too many elders, it's not.

"Today people can live independently until their late 80s or early 90s, or longer," says Kaye, whose 11th and 12th books on aging will be out this spring. "They are healthier, more mobile, working longer. That's why, as a society, we need to stop seeing older adults as incapacitated and unproductive."

It's a fact that elders face challenges in old age, stresses Kaye. Aging entails loss that can be limiting — from physical and mental capacity to income and financial stability, and social support networks, including the resources needed to interact effectively in the world. Only a fraction

Loving Life

Single male, 75, seeking peer who enjoys hiking, travel, motor-cycles, humor, life. Still a great catch, maybe better than ever.
☎5005

Let's Talk

Female, widow, 70. Enjoys Red Sox games, kayaking, opera, a good fire at camp and the conversation that tends to accompany it. Seeking companion to share these interests.
☎5005

Aging experts talk about the importance of adults growing old on their own terms

Exceeding Expectations

can keep a schedule similar to Musgrave's, but that doesn't mean the majority chooses a passive and detached lifestyle.

The real limits in aging shouldn't include stereotypes.

All too often, there's a discrepancy between the personal and cultural aging experience. Societal expectations dictate how and when people grow old. Media reinforce stereotypic portraits of old age. For elders, it's difficult to maintain personal identity and purpose in life when all around them, the natural process of growing old is largely either romanticized or demonized.

Stereotyping and sensationalism in the media have become the basis for much of the bias and repulsion of older people and the aging experience, Kaye says. The media highlight the extremes — older adults acting youthful and immature, or being vulnerable, incapacitated, anilistic. The childlike "Golden Girls" or the elders in rocking chairs or nursing homes. Such portrayals deny the fact that, because of their long and varied life experiences, elders are more heterogeneous than any other age group.

If you're growing old in America, it's important to be aware that there are social perceptions — and stigmas — associated with the physical and mental declines in aging, says Margaret Cruikshank, a women's studies lecturer and author of *Learning to be Old: Gender, Culture, and Aging*. "The reality is, individuals don't fit neatly in what society sees as the deterioration box of old age. People need to know that what society predicts for them (is usually) not accurate. We need to chip away at those cultural obstacles to positive aging."

As a registered dietitian, Musgrave sees adults of all ages, including the elderly, grappling with the values society places on youthfulness, as

mirrored on the silver screen with largely young actors and on television in advertisements for aging "remedies." Such cultural pressures take the largest toll on women.

"Most women picture themselves as they were when they fell in love, encouraged by society that touts pencil-thin youth," Musgrave says. "(As a registered dietician) I spend most of my time explaining that we're all not supposed to be that way. Women who want to enjoy their 70s through 90s need to be able to turn off those messages."

Separating fact from fiction is the first step in understanding aging in you and others, the experts say. Just as important is to disassociate disability and death from aging.

"We need to distinguish between realistic fear and the blanket fear that keeps us from thinking about aging," says Cruikshank. "It's a demystifying process. It's about being less afraid of the physical changes of aging and understanding that they are like many other challenges in life. It helps to be curious and not afraid to talk about particular losses in physical capacity and other threats to our well-being."

Genetics and environment, including socioeconomic status, are realities throughout the aging process, but should not hamper the goal of growing older on your own terms, Musgrave says. For instance, Musgrave's husband has osteoarthritis that can preclude the couple from staying through several dances on a particular Saturday night. But physical limitations don't stop Stanley Musgrave from doing what he loves most — sitting down with a good book.

For Katherine Musgrave, health issues have provided a dose of reality, but not diminished quality of life. She says she felt betrayed by her body, which she always keeps in top form, when she learned she had to

"If you're in touch with your own feelings and body in relation to the world, you can define for yourself what represents a healthy, satisfying old age. It will not be dictated by news reports, television shows or the latest diet, but your own measures of who you want to be as an older adult."

Lenard Kaye

have a mastectomy 17 years ago. It was a little less of a shock when she was told she had to have a pacemaker last December, because she was much more in tune with her own aging process.

Ten days after receiving the pacemaker, Musgrave and her family set out for Austria.

"I don't intend to slow down, but I am more aware that my heart muscles are wearing out. Although it's hard, all of us have to recognize that we can't live forever. That makes it even more important that aging people recognize their great responsibility to share life experiences.

"I have a 96-year-old friend who's most helpful to me," Musgrave says. "When I talk to her over the phone, she tells me in a soothing voice what's going wrong in her body and that she's 'just getting old.' She's a great role model for me in my 80s."

There are so many older, interesting people in Maine who have so much to give, yet they tend to be known only by their friends, says Cruikshank. "We need to know more about who they are, not because of their wisdom, but to enrich the lives of the rest of us."

Kaye advocates for a "new perspective on aging," especially among healthcare and social workers. "We need to concern ourselves with those in poverty, on their deathbeds and with Alzheimer's, but we also have to realize that the vast majority are living actively, independently, and can benefit from our intervention to maximize the quality of their lives," he says.

People feel better, more confident about their lives if they're engaged in life around them, contributing to their families and communities. Such engagement legitimizes your existence. Healthy aging doesn't require volunteering five days a week at a local school; engagement can

be reflected in reading, developing new skills or talents, expressing yourself in a variety of ways, says Kaye.

"More important than anything, people have to have options. They should not feel pigeon-holed into one thing or another, but feel their lives are a continua of activities."

Without rethinking what we've come to know about aging, Americans will have a rude awakening in the near future, Kaye says.

"Twenty years from now, every fifth person will be 65 and older — 20 percent of our population," says Kaye. "There will come a time when people live to be 110 or 120 and not totally disconnected from the world. They will not be invisible."

In the next 10–15 years, as the first of the Baby Boomers become elderly, we'll have "a whole new ballgame," says Kaye. "That generation will not go quietly into the night. They will be boisterous and their expectations will be higher. (Instead of adhering to the expectations of society) they will expect society and the media to be more responsive to them. They not only will demand fitness centers, but cars, houses and smart technology designed with elders in mind. Many are already breaking the rules; they are their own persons, with different mindsets, philosophies and values than their elders."

Successful, productive aging is more than eating well and being perfectly healthy. A big bank account doesn't ensure it either, Kaye says. "You have to be comfortable with who you are emotionally and physically. If you're in touch with your feelings and body in relation to the world, you can define for yourself what represents a satisfying old age. It will not be dictated by news reports, television shows or the latest diet, but your own measures of who you want to be as an older adult."

— Margaret Nagle



Rockefeller's Views



Forestry camp students help restore historic vistas in Acadia

IN 1913, SIX YEARS BEFORE much of Maine's Mt. Desert Island was designated as the first national park east of the Mississippi, industrialist John D. Rockefeller Jr. began constructing 57 miles of carriage roads through its heavily wooded coastal wilderness. It took nearly 30 years to complete Acadia National Park's network of roadways for non-motorized vehicles. Rockefeller's attention to detail was evident at every turn, including the use of foresters to open the legendary, breathtaking vistas.

Now those same forests along the carriage roads are getting a makeover with help from some of the best aspiring foresters in the state. Students and faculty members participating in the University of Maine's annual forestry camp are working to restore the carriage road landscape to maintain the historical integrity of Rockefeller's vision.

Fifteen years ago, the National Park Service surveyed Acadia's carriage roads and made recommendations for their rehabilitation and maintenance. That year, UMaine set up its forestry camp near Acadia to be part of the rehabilitation effort.

"We're filling a need rather than doing a project for the sake of just doing it," says forester and University of Maine faculty member Louis Morin. "We have a place to work, the projects need to be done, and the students get an opportunity to meet (and work with) park staff."



Photos by Toby Hollis

Since the 1920s, UMaine's annual forestry camp has provided students with hands-on training in forest management. The first forestry camps were held near the town of Princeton and at Nictaus Lake, in cooperation with loggers and local landowners. With changes in land use, UMaine's program was looking for a new location 15 years ago. That's when the mutually beneficial agreement was struck between Acadia and UMaine's Department of Forest Management.

During forestry camp, students and faculty spend a week in the classroom and in local, university-owned forests, learning more about the methods, safety precautions and equipment needed for effective forest management. Then with foresters like Morin and other instructors to guide them, the students head for the Maine woods.

In Acadia, the students have focused on restoring the historic vistas that made the carriage roads such an attraction. Trees selected by park service personnel as part of the multi-year rehabilitation program are cut and removed using a skyline logging system that minimizes damage to wildlife, soils and vegetation. Cables rather than skidders are used to move trees and debris up the steep terrain.

"In Acadia, people are sensitive to disturbance. When we leave the park, we don't want it to look like we've created this hole in the forest," Morin says. "You have to look at your code of ethics, which may suggest alternative ways to manage land that do not have negative, long-term impacts."

Other projects for the National Park Service have taken Morin, professor Al Kimball, and their students to other islands near

Mt. Desert. On Long Island in Blue Hill Bay and Jordan Island in Frenchman Bay, UMaine students have conducted natural resource inventories and prepared management plans. On Acadia's Isle au Haut, they updated trail maps using GPS.

Beyond the varied woodlands management experience, forestry camp means "getting up early, working 'til lunch and then working 'til the work gets done," says sophomore Molly Simonson. It also means sleeping in tents in all kinds of spring weather, occasionally enjoying a group meal of steamers and spaghetti, and playing in the three-week-long forestry camp cribbage tourney.

"Tenting out in the rain proved especially challenging; it rained a lot during our stay," says sophomore Tyler Alexander of forestry camp 2003. "Days were long, we each had to do our own cooking and we were all ready for bed as darkness fell."

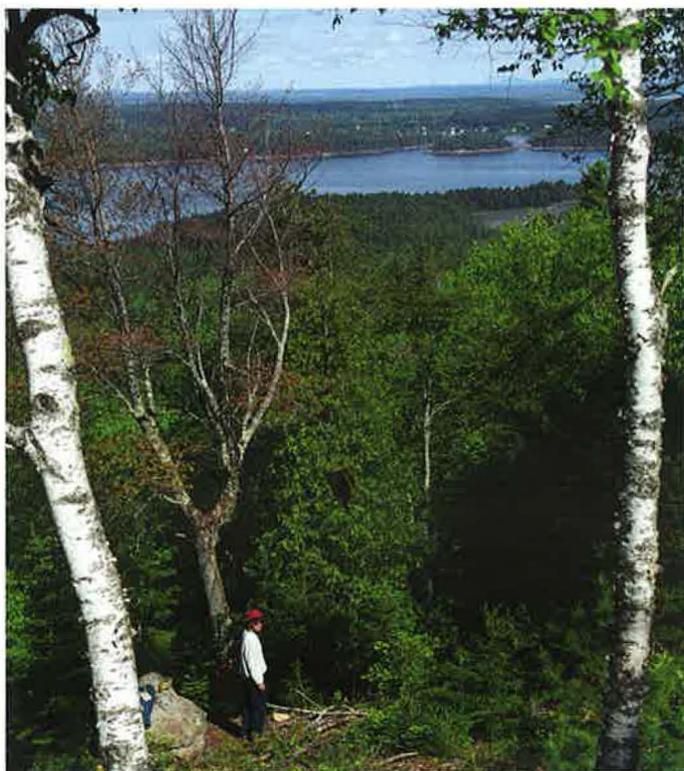
In addition, students get a crash course in field engineering, according to Thomas Coleman, a junior in UMaine's Forest Operations Program. In other words, not everything goes as planned when working with heavy equipment in the woods. That's when you learn the importance of impromptu, often creative maintenance and repair.

"Students are encouraged to think critically and on their feet, which teaches them how to deal with stressful situations," Morin says.

It's just such forestry camp experiences that Alexander says helped him most in his job last summer as a seasonal field technician for a Vermont-based forestry consulting firm.

"I think (my boss) was expecting to spend more time training me, but most of the training was unnecessary since I had learned most of the field skills at camp," says Alexander. "I think he was impressed with my 'woods sense,' being able to identify good and bad things, and to report them in an academic manner."

.. Chris Corio



In UMaine's annual three-week forestry camp, students learn about woods management first by understanding the equipment and methods, and then by putting both into practice.





How will election 2004 be remembered? As in other U.S. presidential elections, history will be made just with the naming of a commander in chief. But beyond the noisy political campaigns this year are some new — and not so new — realities in American popular culture that are giving voters more than issues and iterations to think about.

For instance, this is the first presidential election since the hanging chads calamity in Florida. For many voters, a deep skepticism of technology has crept into what was once considered a sacrosanct democratic process.

This also is the first post-9/11 presidential election. To what degree is fear a factor?

War, both on terrorism and in Iraq, has mobilized many Americans. The past two years have seen more widespread citizen activism, civil disobedience and protests than at any other time since the Vietnam War. Such challenges to the status quo have implications.

This campaign season, more Americans than ever freely admit to throwing their vote to the most electable — but not necessarily the best — presidential candidate. Would it better serve democracy to choose the candidate based on issues?

Ultimately, all this skepticism, fear, unrest and seeming subjectiveness is being communicated back to us. Election 2004 has ushered in a new chapter in electronic communication. How voters are getting their information has given new meaning to mass media.

To take the pulse of American culture this election year, *UMaine Today* turned to University of Maine researchers in political science, history and sociology. Speaking from their fields of expertise, they offer perspectives on the cultural realities coloring today's political climate as voters prepare to head to the polls.

Margaret Nagle

No technological panacea

Howard Segal, director of the Technology and Society Project, is the Adelaide and Alan Bird Professor of History

MODERN TECHNOLOGY is often considered a solution to social problems, but when it comes to electoral technology, recent problems at the voting booth have thrown a significant portion of Americans into a state of skepticism. Enough doubt has crept into the polling process so that this year, should any technology problems like those in the 2000 vote repeat themselves, the political process — surely the heart of democracy — might be undermined.

Ironically, major newspapers like *The New York Times* have promised readers unprecedented information and analysis, thanks to computers, the Internet and the Web.

To restore confidence, election 2004 must be free of any barriers to voting and must accurately record voters' preferences. Yet not enough

Cul

How does liberty stand



has been done since 2000 to improve the reliability of voting machines. Indeed, some new voting machines that require a mere press of a button or that have touch-screen operation have been found wanting and unreliable.

Let me stress that the failures in the election 2000 voting process, especially in Florida, were as much political as technological, and reflected a Republican strategy of disenfranchising as many likely Democratic voters as possible, especially in poor areas. Still, hanging chads and confusing butterfly ballots have made people of all political persuasions more cautious, more concerned that their votes be counted and counted accurately. It's not only a question of whether people will be able to vote, but also of whether their votes will be accurately recorded.

Admittedly, the fact that many people didn't get their votes counted correctly in the presidential election four years ago is hardly unique. For most of American history, discrimination

kept people of color away from the polls, political machines made it possible for the dead to vote, and corruption made what was supposed to be confidential balloting anything but.

Most recently, election 2000, with its close vote and disputed ballots in Florida, harkened back to the 1960 presidential campaigns of Richard Nixon and John F. Kennedy. Kennedy beat Nixon by 0.2 percent of the popular vote, amid charges of corruption in states like Illinois. (Though even had Nixon won in Illinois, he would still have lost the election.)

On a larger scale, the 2000 vote in Florida might contribute to American citizens' declining faith in technology that has been historically optimistic. For decades, Americans had a bedrock faith in technology, including the space program, nuclear power and food production.

Prior to election 2000, 99.9 percent of all Americans thought they could exercise their voting choices in private, without repercussions.

With the same blind faith in technology, people throughout the world once believed that if we only could get to the moon, Earth would be transformed in some fashion.

Ultimately, the most common-sense approach is for people not to assume automatically that technology is doing what it's supposed to do, but to monitor — or have impartial authorities more closely monitor — elections.

Post-9/11 politics

Nathan Godfried is a professor of history

MEDIA PUNDITS and politicians have pontificated on how the events of Sept. 11 reshaped and redefined America and its people. Often they use historical analogy to anchor their conviction that 9/11 marked a "turning point" in national political culture. But while history certainly offers insight into current events, some analogies work better than others.

ture Shock

in election 2004?



Main Entry:
culture shock
Function: *noun*
: a sense of confusion and uncertainty sometimes with feelings of anxiety that may affect people exposed to an alien culture or environment without adequate preparation

Merriam-Webster Online Dictionary

In the aftermath of 9/11, many commentators referred to the Japanese attack on Pearl Harbor in 1941 and the subsequent transformation of America from isolationism to internationalism. Dec. 7 and Sept. 11 share the characteristic of a sneak air attack, but the imagery of a complacent America shocked into action is too simplistic.

While some Americans adhered to a form of political isolationism in the early 1940s, almost all the nation's leaders were dedicated internationalists. By mid-1941, Franklin D. Roosevelt's administration already had committed the nation to serve as the "arsenal of democracy" and actively planned for an American entry into the Second World War.

Similarly, the United States has been engaged in a war on terrorism for more than 20 years. This campaign probably experienced its most important change with the end of the Cold War in the early 1990s. No catastrophe initiated America's Cold War against Communism and the Soviet Union. However, that half-century battle, like the current war on terrorism, constituted an open-ended, global U.S. commitment to do whatever was necessary to thwart threats to the "American way of life."

The rhetoric of an international Communist conspiracy reverberates in the characterization of a global terrorist network.

Provocative actions by the Soviet Union after World War II generated legitimate security concerns in Washington and elsewhere, just as terrorist attacks have done recently. But America's Cold War leaders manipulated the fear of external Soviet expansionism and internal Communist subversion to bludgeon the electorate and Congress into acquiescing to the material and psychological requirements for American hegemony in the world. Once set in motion, the nation's most conservative elements used the Cold War political culture for their own purposes: to repress alternative political perspectives, obstruct civil rights and stifle social reform at home.

The leaders of America's war on terrorism, like their Cold War predecessors, remain committed to a world dominated by the United States and remade in its image. It remains to be seen whether the allegedly changed political culture of post-9/11 America allows them, like their Cold War idols, to wrap themselves in the cloaks of democracy and national security while shredding those very same garments.

Acting out

*Professor Steven Barkan chairs
the Department of Sociology*

AFTER THE TERRORIST attacks of Sept. 11, 2001, Americans nationwide gathered in houses of worship, in parks and on sidewalks to express their grief and horror over the unthinkable loss of some 3,000 lives. For several weeks, the nation was united in its collective sorrow.

By the following summer, our national unity had dissipated amid a debate arising from growing alarm by the Bush administration over the threat allegedly posed by Iraq. As it became clear that the U.S. government was planning to invade, protests and counter-protests occurred. National support for the U.S. policy in Iraq diminished in the aftermath of the invasion as no weapons of mass destruction were found and as U.S. soldiers continued to die and be maimed by terrorist strikes in occupied Iraq.

The first few months of 2004 also saw protests on a very different type of issue — same-sex marriages — after the Massachusetts Supreme Judicial Court ruled that gay marriages must be allowed in that state. In response, protest rallies both pro and con gay marriages



took place, and thousands of gay marriages were performed in San Francisco and elsewhere in apparent defiance of state law.

What will be the consequences of this renewed wave of activism? The scholarly field of social movements has found it notoriously difficult to assess the actual impact of protest, which obviously does not occur in a controlled environment. It's not always clear whether protest drives public opinion or vice versa.

However, a few consequences of the new wave of protest seem clear. For better or worse, protest helps intensify feelings that should translate to greater voter turnout in November. Also, U.S. history indicates that protest often affects public policy in the long run.

In the 1960s, civil rights protests helped to end Southern racial segregation, and Vietnam anti-war protests led President Lyndon Johnson to refuse to run for reelection and helped to keep the U.S. government from escalating the war on certain occasions. In the last few decades, protests and other actions by the gay, women's rights and environmentalist movements have changed the American landscape.

If the past is any guide to the future, historians and sociologists may one day regard the

contemporary Iraq and same-sex marriage protests as affecting voter turnout in November and also the more general national response to these two issues. Whatever that response, the issues of Iraq and same-sex marriages will reverberate for many years to come.

Electability is everything

Amy Fried is an associate professor of political science

THIS YEAR, we heard it all over. According to reporters and public opinion analysts, Democratic primary voters chose the candidate who was the most electable, despite not offering their preferred policy ideas. Rather than voting for a candidate most matched to policy preferences, these voters were engaged in "strategic voting," casting votes focused on the election process and outcome.

This approach to voting is not that unusual. For instance, in the 2000 presidential election, pre-election polls indicated greater support for Nader than he received. Evidently, after watching election surveys, a number of people voted for their second choice.

But if people vote strategically, doesn't this undermine elections' ability to indicate citizens' views? In my view, strategic voting — making determinations at least partly based on electability — can be quite sensible.

If the most preferred candidate and the candidate judged most electable are not that far apart on the issues, then electability is the tie-breaker. In primaries, many candidates take fairly similar positions, particularly when compared to their general election opponent.

Furthermore, we now live in highly polarized times in which the national Democratic and Republican parties support quite divergent policies. Given these sharp differences, it is eminently reasonable for voters to support a candidate they think is most able to win. While sometimes primaries divide members of the party, the high levels of polarization mean that a vote for the more electable candidate does not harm the party's ability to unify around the nominee. Rather, the party's nomi-



nec can easily rally members and build a coalition based on a simple message: Vote the other fellow out of office.

Voters, of course, can be mistaken when it comes to electability. No one can know for certain who will run the best campaign and who will have the best chance months away, in November. But focusing on electability is not foolish, nor an abrogation of civic duty.

This just in

Richard Powell is an assistant professor of political science

THE BIGGEST CHANGE in the role of the media in American politics is in where people get their news. Until the 1990s, political news in the United States was dominated by the print media and network broadcasts. The 1990s saw the rise of the 24-hour news cycle. In the new century, it's multimedia news.

According to a recent study by the Project for Excellence in Journalism, since 1990 daily newspaper circulation has dropped 11 percent and evening news viewership has declined by about one-third. A growing number of Americans are getting their news from the Internet.

Although the network news still has a much larger audience, its dominance is seriously challenged. In response, the networks have been forced to change their coverage to meet the demands of the new information environment.

For example, after his initial round of victories, John Kerry became the subject of an unproven allegation that he had an extramarital affair with a former intern. The story was reported widely on the Internet, including in the popular Drudge Report. Millions of Americans became aware of the story, but the mainstream media were hesitant to give attention to an unverified story. Increasingly, traditional media face enormous pressures to sacrifice their standards of accuracy for competitive purposes.

The Internet also is interacting with traditional news media to change campaign advertising. Under the new campaign finance regulations, candidates are now required to personally verify their support (i.e. "I'm George W. Bush and I approve this message.") in broadcast ads in order to limit the negativity. To work around this, candidates have produced separate ads for their Web sites. Not required by law to carry their spoken endorsement, the Web ads tend to be much more

negative. Although relatively few Americans will actually view the ads on the Internet, the traditional media have given these ads a great deal of attention in their news broadcasts. In this way, candidates have found a way to work around the requirements of the new campaigning laws to make negative appeals to voters.

In addition, Howard Dean demonstrated the potential for the Internet to change the way campaigns are financed. Traditionally, candidates have raised money through sources such as fund-raisers, direct mail and personal networking — methods that generally relied on a relatively limited number of affluent donors.

However, following John McCain's lead in 2000, Dean showed that one can raise a substantial amount of money from a large number of smaller donors through the Internet. This new form of financial support for future candidates has the potential to open the American political system to outsider candidates who can attract grassroots support. It could be a potentially democratizing shift.

With fast-paced changes in the role of the media in the American political system, it's clear that a new form of politics is emerging.



<http://www>



Photos by Kathy Rice

Research and rounds

ADAM BURGOYNE STARTED thinking about a career in medicine when, in high school, he lost two grandparents to cancer. He found his love of molecular biology research as a college freshman in a University of Maine laboratory.

When he graduates this May, he plans to pursue a career in oncology in order to work with cancer patients and to conduct cancer research. To do that, he is entering an M.D.-Ph.D. program. He's been accepted at Case Western Reserve University and the University of California in Los Angeles, but hasn't decided where he's headed in the fall.

"Research for me is an indirect way of helping society, and when working with patients, I'll have direct impact," says Burgoyne, a native of Enfield, Maine.

Burgoyne is graduating with three bachelor's degrees in the fields of molecular biology, biochemistry and French. He spent his undergraduate years, including summers, conducting research with Dan Distel, associate professor of biochemistry, microbiology and molecular biology.

In the lab, Burgoyne's focus was on shipworms, an elongated clam that burrows into wood, damaging marine piers and ships. In his research, Burgoyne studied the enzymes responsible for degradation.

His research was the subject of a poster he presented at the American Society for Microbiology last May, as well as his honors thesis.

Burgoyne spent a summer as a MERITS (Maine Research Internships for Teachers and Students) intern, and most recently, was one of 300 students nationwide to receive a 2003 Goldwater Scholarship.

"I've had a great experience at UMaine because the department is small and the university is not gigantic," says Burgoyne, whose parents are alumni. "I credit the faculty and staff with getting me where I'm going."

Better building products

IN 1995, CARMEN CHERRY left Tenants Harbor, Maine, with her sights set on an engineering career. Now, after graduating from Stanford and receiving a master's from Columbia University in 2000, she has returned to her home state to get a Ph.D., doing research in the University of Maine's Advanced Engineered Wood Composites (AEWC) Center.

Her first project is to develop a new wood composite product for the residential construction industry.

Before coming to Orono last summer, she worked for a New York engineering firm developing specifications for the renovation of Penn Station. She also swung her hammer on the framing crew of a house building contractor.

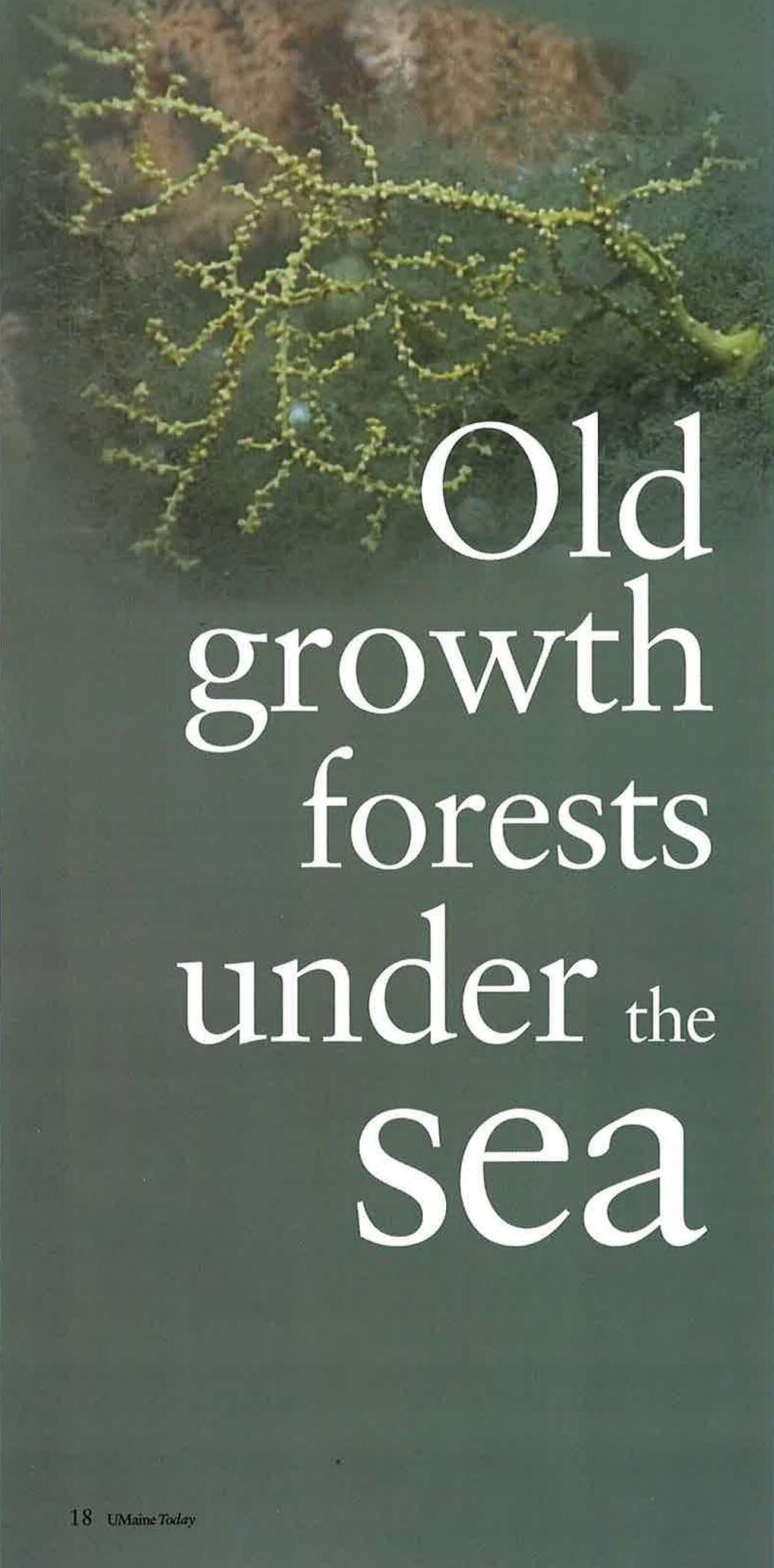
Today, she is working with Habib Dagher, AEWCC director; Assistant Professor Bill Davids; and John Crowley, owner of New England Classic and NetForms Inc., of Falmouth, Maine, to develop a better insulated structural building panel. Their goal is a product that enables builders to reduce construction costs and increase building resistance to stresses, such as high winds and earthquakes.

The basis for her project is a patented panel designed by Crowley and a team of researchers while he was an associate professor at the Massachusetts Institute of Technology as part of their Innovative Building Products Program. It is essentially a sandwich. Thin plywood-like sheets known as oriented strand board (OSB) are on the outside, and fiberglass insulation is on the inside.

To find out if Crowley's panel has market potential, Cherry wrote a successful application for a \$10,000 seed grant from the Maine Technology Institute. She and her colleagues are surveying home builders about their desire for and willingness to use an insulated panel product. They also are focusing on panel design, paying particular attention to connections between the panels.

"We've narrowed our project to creating a panel that will resist lateral loads, be internally ventilated, use less expensive glass insulation and use OSB as all of its structural components," Cherry says.





Old growth forests under the sea

UMaine marine research part of global effort to save ancient deepwater corals

DROPPING FROM THE SUN-drenched ocean surface to the deepest reaches of the sea floor isn't for everyone. The cold, bone-crushing depths are as friendly to human life as the surface of Mars. To make the journey, researchers Les Watling and Anne Simpson crawl into a small submarine named Alvin, the U.S. Navy's deepest diving submersible, that has all the roominess of the first space capsule. They prepare to dive knowing their survival depends on protection from the very environment they want to study.

The two scientists and the pilot of the research sub are surrounded by brightly lit control panels. On video monitors, they watch day turn to inky darkness as the sub descends. Alvin's strobe lights and constantly pinging sonar guide the way down.

More than a mile under the sea, the show really begins. Peering through a 3-inch-thick window about the size of a salad plate, the researchers see the opening act — zooplankton glowing luminescent in response to the sub's lights.

"It looks like you're surrounded by stars," says Simpson, describing the scene. "It's like going to the moon."

Beautiful as they are, it isn't flashy zooplankton that Simpson and Watling are after. The University of Maine researchers are in search of ancient deepwater corals, subjects that have captured the attention of ocean scientists and fishery managers around the world in recent years. The reason is simple: Researchers have found that corals are far more abundant in deep northern seas than anyone had expected as little as five years ago.

Coral reefs have been discovered in deep water from Florida to Newfoundland and Portugal to Norway, and as far north as the

Arctic Circle. Fishing records suggest that these diverse marine communities support commercially important species, including groundfish like cod and haddock. In Nova Scotia, fishermen, using long lines and hooks rather than nets that essentially clear-cut the ocean floor, have led deepwater coral preservation efforts.

Watling and Simpson are studying the marine animals' basic biology — how these corals grow and reproduce. They and other scientists also are driven by a sense that time may be running out. Not long ago, corals were well beyond the reach of fishing technology. Today, as trawlers reach deeper, they are damaging coral beds that have been virtually unchanged for millennia.

“Most of these deepwater corals are pretty old,” says Watling, a UMaine marine biologist and member of the National Research Council Panel on Marine Biodiversity. “They’re the marine equivalent of old growth forests. There’s a lot of concern that fishing gear can wipe out things that have managed to survive for a very long time.

“The real issue right now is that people are starting to fish into 1,000 meters of water. Off Canada and Norway, where large concentrations of these corals have been found, they are starting to get hit by fishing gear. The same is true in other parts of the world. Fishing gear is causing real problems for deepwater corals. So



Photo by Linda Healy

Anne Simpson examines the coral species *Paragorgia*. Other species of deepwater corals studied by UMaine researchers include *Paramuricea* from the Gulf of Maine (far left); and (below, left to right), *Metallogorgia*, *Corallium* and *Iridogorgia*.

Coral photos courtesy of Les Watling

Corals in shallow tropical water photosynthesize to make food. In deep, cold water without light, corals feed on passing particles.

there’s a concentrated effort to find out as much as we can about them.”

During their dives on the Alvin last year, Watling and Simpson, a Ph.D. student, didn’t see large coral reefs. They were exploring undersea mountainous regions known as seamounts — volcanic remnants of the

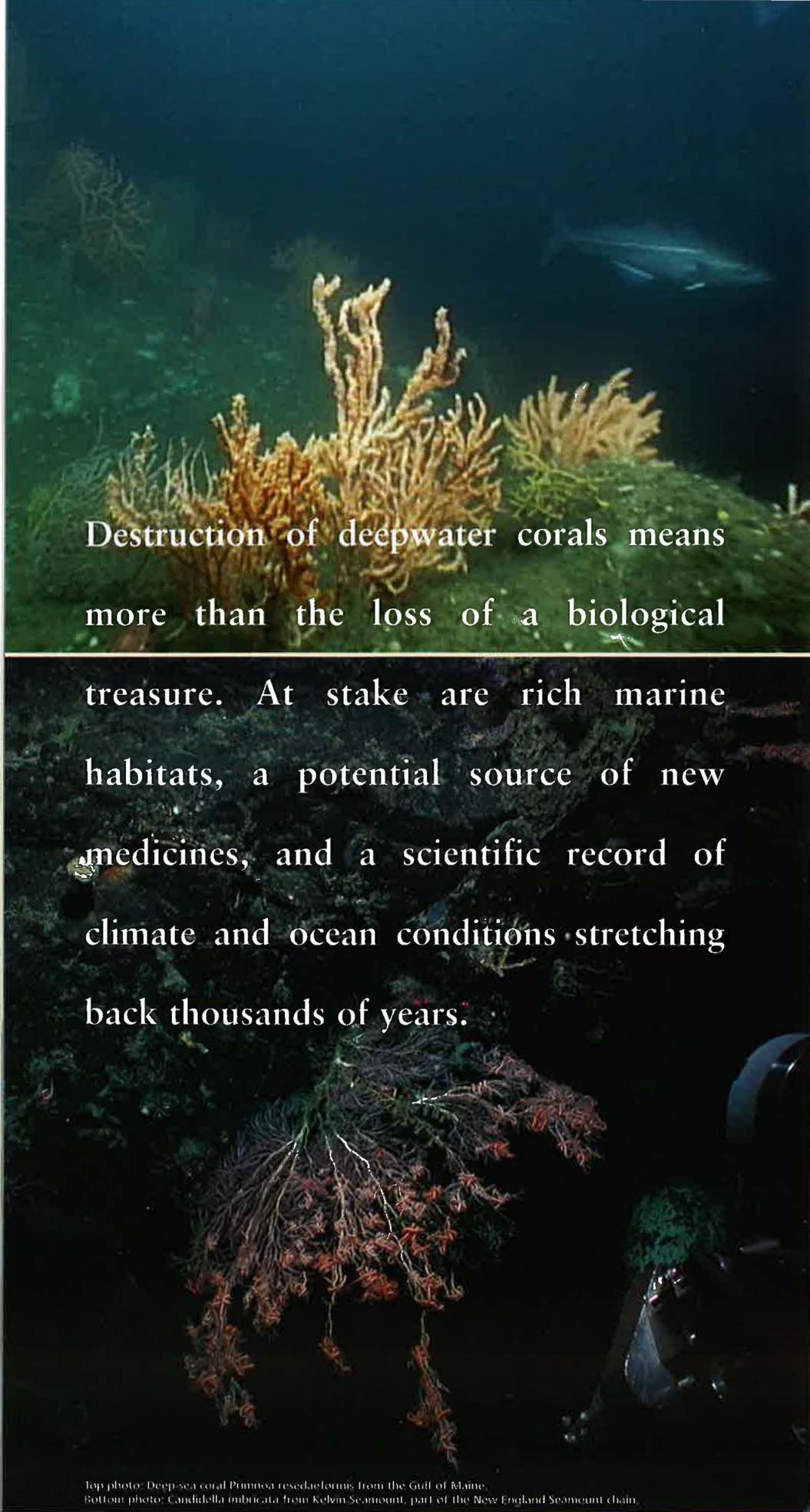
Atlantic’s violent birth — that extend off the New England coast north of Bermuda toward the mid-Atlantic ridge. There in Alvin’s lights they saw coral trees and fans hanging from steep, 800-foot-high cliffs and spread in patches across the seamount tops.

“They were the only things sticking up off the seafloor. They’re what you notice, like cactus in the desert,” says Simpson.

These denizens of the dark, some as tall as sunflowers, include many cousins of the colorful coral found in tropical reefs in shallow waters. Living coral animals, also known as polyps, are related to sea anemones and jellyfish. Not much more than a mouth with a gut and smaller than a thimble, they attach themselves to rocks and other hard surfaces. As they multiply, the well-known skeletal formations slowly build below them. Watling says you can think of them as “giant condominiums, housing projects for small animals.” Coral polyps are classic opportunists, depending on plankton and other drifting particles for food.

While the abundance of corals in northern waters was a surprise, their existence has been documented throughout history. Reports from the mid-18th century indicate that North Atlantic fishermen occasionally brought up





Destruction of deepwater corals means more than the loss of a biological treasure. At stake are rich marine habitats, a potential source of new medicines, and a scientific record of climate and ocean conditions stretching back thousands of years.

pieces of coral in their nets. At that time in Europe, corals were sought for their medicinal powers and traded as necklaces and bracelets. (Biomedical researchers have since confirmed the some corals contain compounds with health benefits.)

Destruction of deep corals means more than the loss of a biological treasure, says Watling. He is one of the more than 1,100 scientists worldwide who signed a petition in February calling on the United Nations and world governments to protect deep corals by restricting deep-sea trawling. At stake are rich marine habitats, a potential source of new medicines, and a scientific record of climate

Against this background of concern, Watling and Simpson are working to understand how deep-sea corals eat, grow, reproduce and interact with other animals.

and ocean conditions stretching back, in some cases, thousands of years.

One of the questions he and Simpson hope to answer relates to coral remediation. How long would it take a damaged reef to rebuild? Scientists already know that deep-sea corals grow slowly; chances are rebuilding takes longer than the average human lifetime.

Against this background of concern, Watling and Simpson are working to understand how deep-sea corals eat, grow, reproduce and interact with other animals. Simpson is focusing on reproduction.

With the help of Kevin Eckelbarger, director of UMaine's Darling Marine Center, she is using a powerful transmission electron microscope to look at the detailed structures of egg- and sperm-producing tissues. Since understanding the evolution of deep-sea corals can be difficult, Simpson hopes that reproductive tissues may provide new information that will help to resolve some of these questions.

Nick Houtman

Top photo: Deep-sea coral *Primnoa resedaeformis* from the Gulf of Maine.
Bottom photo: *Candidella imbricata* from Kelvin Seamount, part of the New England Seamount Chain.



Coach Whitehead's view of winning on and off the ice Goals

"Ultimately, I'll make the final decisions, but it's important to involve everybody. It shows the players that I respect their opinions and the fact that they have a big stake in what's going on. It also makes them more willing to listen."

Tim Whitehead

A NATIONAL TELEVISION audience and a FleetCenter crowd of almost 18,000 watched Tim Whitehead work when he coached the UMaine Black Bear hockey team in the NCAA Frozen Four tournament in Boston in early April. That's a big change from 13 years ago. Then, only his mentor, teacher Joe Floyd, and students in his John Bapst High School history class watched him closely as he worked as a student teacher in Bangor, Maine.

Despite the different spotlights, Whitehead sees the jobs of teacher and coach as being rooted in the same basic ideals.

"There are many types of teachers and coaches who can be effective, as long as they stay true to their personality," Whitehead says. "Good teachers and coaches create an environment of mutual respect, whether it's in the classroom or the locker room. I think that's the basis of a good learning situation."

Whitehead is a 1985 Hamilton College graduate. After playing professional hockey in Europe, he taught middle school social studies at St. Gregory the Great School in Trenton, N.J., for one year. Whitehead then turned to

college coaching, and after two seasons at Middlebury College, joined Coach Shawn Walsh's staff at UMaine for the 1990-91 season. During that year, he earned a master's degree in education from UMaine.

After 10 years at UMass-Lowell, five as the head coach, Whitehead returned to UMaine and succeeded Walsh, who died shortly before the start of the 2001-2002 season.

"That first year was very challenging," Whitehead says. "But it was fascinating to see each player gradually come on board with what we were doing as a group."

The Black Bears finished second in the national tournament that season, losing in overtime to Minnesota.

"To see it come out with such great results was exciting. Our coaching staff learned and our players learned. We found out a lot about ourselves and about how to succeed despite adversity. Anyone who's been involved in sports recognizes that there truly are lessons to be learned through athletics, and that season was a great example," he says.

Teaching is about communication, and Whitehead believes that his players need to be involved in making decisions. During the playoffs this year, he used e-mail to ask his players for ideas to help improve the team's struggling power play.

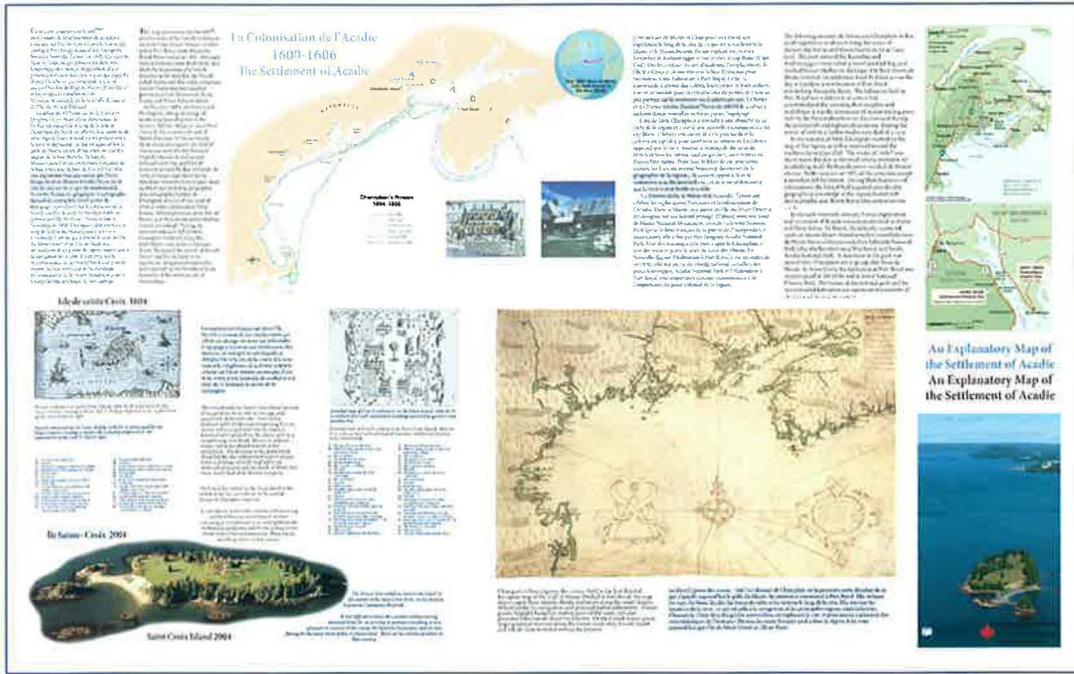
"Ultimately, I'll make the final decisions, but it's important to involve everybody," he says. "It shows the players that I respect their opinions and the fact that they have a big stake in what's going on. It also makes them more willing to listen."

Whitehead is only the third full-time head coach in the storied history of Black Bear hockey, which began in 1977. He recognizes that he is in charge of Maine's most visible team, and he accepts the challenge with the enthusiasm of a first-year teacher.

"One of the reasons I love coaching is because my students are passionate about the subject," Whitehead says. "That creates a great opportunity to teach about other aspects of life during the process of teaching hockey."

Joe Carr

One side of the map illustrates and describes the settlement of Acadia, 1600–1606.



Map courtesy of Mike Hermann

"This educational poster is of interest to the people of Maine as one of the many examples of the cultural closeness of the state to the Maritimes. It also has broader interest because of the impact of the Colonial period on the continent. Acadia's reach goes far beyond New England, extending throughout Canada and into the bayous of Louisiana."
 Raymond Pelletier, Canadian-American Center associate director, and associate professor of French

Celebrating Settlement

BEFORE THE PILGRIMS FOUNDED the first New England Colony in the Plymouth area of Massachusetts, and before the Virginia Company established an English colony in Jamestown, French explorers charted the Northeast coast, from the Bay of Fundy to Cape Cod.

The explorers also established the first French settlement in North America on what is now a 6.5-acre island in the St. Croix River dividing the United States and Canada. This French settlement in 1604 marked the beginning of permanent European presence in North America north of Florida, predating both Plymouth (1620) and Jamestown (1607). It also marked the beginning of an enduring French presence in North America continuing to the present.

This year, on the 400th anniversary of that settlement, Canada and the United States celebrate a shared French heritage. Festivities are planned June 25–July 4 on both sides of the border by the Ste-Croix 2004 Coordinating Committee, representing local interests and government agencies from both Canada and the States, including the U.S. National Park Service and Parks Canada, which jointly interpret the Saint Croix Island International Historic Site.

Complementing interpretive approaches to the anniversary will be the distribution of a bilingual educational map developed by cartographer Mike Hermann at the University of Maine Canadian-American Center, with editorial assistance from the St. Croix International Waterway Commission and National Park Service.

One side of the map illustrates and describes the settlement of Acadia, 1600–06, including the first settlement established by King Henry VI's representative, Pierre Dugua, the Sieur de Mons, and geographer and cartographer Samuel Champlain. The reverse side uses detailed population distribution maps to trace Acadians' deportation in the mid-1700s, their return and dispersal in the Maritimes, and their location today.

FOR UNIVERSITY OF MAINE SENIOR Jennifer Chiarell of Bangor, Maine, the well-known theme "Think Globally, Act Locally" was a call to action that she expressed through sculpture.

The double-major in women's studies and studio art created *Vine Globes* — hanging spheres up to 10 inches in diameter, each containing Chiarell's version of "worry dolls," 2–3 inches tall. The piece is now installed at the Frauenmuseum in Bonn, Germany, as part of a juried exhibit, *Globalia*, featuring the works of 26 contemporary women artists worldwide.

The Frauenmuseum exhibit is on display through May 2004.

Chiarell says the inspiration for the work came from a women's studies class on women and globalization. The artist made her own set of worry dolls to represent the hope that poverty and conditions such as inadequate housing and unaffordable healthcare can improve for women around the world.

Chiarell's worry dolls are cocooned in the vine globes of different densities to represent the many obstacles facing women worldwide. Most of the spheres are suspended at different heights to be at eye level with viewers. A couple of unsuspected globes can be picked up for closer examination, implying that "everyone is responsible, everyone can make a difference toward fair treatment of women," says Chiarell in her artist's statement.

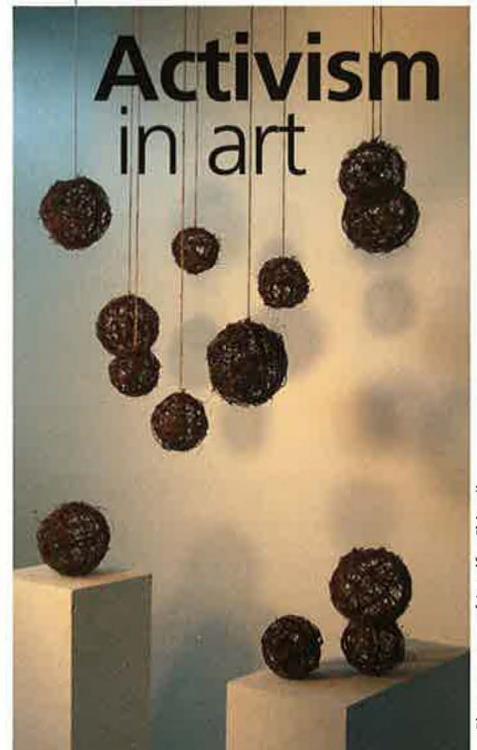


Photo courtesy of Jennifer Chiarell



MAINE BUSINESSES will join local, state and federal officials in a conference at the University of Maine May 14 to discuss programs and business practices in the homeland security market. Maine Gov. John Baldacci and U.S. Sen. Susan Collins will co-chair the meeting, which will feature keynote speaker Asa Hutchinson, undersecretary for border security and transportation in the U.S. Department of Homeland Security.

The business of homeland security

The purpose of the conference is to provide Maine businesses, researchers and local officials with information about federal procurement policies and grant opportunities.

“Too often, small businesses find it difficult to navigate the federal contracting process. This conference will help them to understand where to turn first for the information they need,” says Collins, who chairs the Senate Governmental Affairs Committee that oversees the Department of Homeland Security.

Baldacci notes that the conference will provide small businesses and first responders throughout Maine with direct access to federal homeland security personnel and various state resources. Seminars will focus on federal and state procurement policies, supply chain management, emergency response, and research and development.

More information on the conference is on the Web (www.umaine.edu/mcsc/homeland.htm).

Shooting for a Healthy Sports Experience

MORE THAN 300 student-athletes, coaches, principals, athletic directors and other school officials from Maine were on campus in March to help an 18-member statewide panel develop a national model for quality interscholastic sports programs that complement academic standards and school objectives.

Students participating in the Maine Sports Summit represented 87 high schools and 24 middle schools of all sizes.

The Summit was sponsored by the UMaine Sport and Coaching Education Initiative’s “Coaching Maine Youth to Success,” a federally funded project designed to provide a blueprint to help keep the sports experience enjoyable and in perspective.

Students at the summit called for stronger communication between athletes, coaches and parents; positive sports learning environments; quality coaching education, including the importance of teaching life skills; more fun in sports, with winning kept in perspective; and consistent and fair treatment of athletes of all abilities.

Among practices identified as detrimental to a healthy sports experience: bad attitudes; lack of respect; parental politics; coaches favoring the best players; negative comments and inappropriate behavior by parents and fans; win-at-all-cost attitudes; and the media’s role in glorifying negative behavior at events.

Their input will be used by the Coaching Maine Youth to Success panel in crafting a working philosophical base for improving interscholastic athletics and supporting effective coaching education.

Since October, the panel has been working to identify major themes and concerns in interscholastic sports, including sportsmanship, academics, opportunity to play, quality of coaching, role of parents, and health and fitness. Recommendations from the panel are expected in early fall.

The UMaine Sport and Coaching Education Initiative is co-directed by Robert Cobb, dean of the UMaine College of Education and Human Development, and J. Duke Albanese, lead policy adviser for the Great Maine Schools Project at the Senator George J. Mitchell Scholarship Research Institute in Portland, and former Maine Commissioner of Education.



Joan Benoit Samuelson, winner of the Olympic’s first women’s marathon, speaking at the Maine Sports Summit.

Photo by Michael York

The Saucier Sisters

WHILE THEIR CAREER POSSIBILITIES range from industrial engineering to biomedical research, four sisters from Millinocket, Maine, are all getting their start by majoring in chemical engineering at the University of Maine. Jennifer, who graduates this year, was the first sibling to enroll at UMaine, followed by Rebecca. This year, twin sisters Sarah and Susan also are on campus, along with their mother, Karen, who is completing a master’s degree in literacy education. Both parents are UMaine alumni. The Saucier sisters are following in the engineering footsteps of their father, Richard, who worked in the Great Northern Paper mill in Millinocket for many years and now is an owner of an engineering consulting firm.



The Sauciers: Jennifer, Susan, Sarah and Rebecca. Photo by Kathy Rice



Studying Sherman Alexie

AS A PRELUDE to a much-anticipated campus visit in April by Native American author, poet and screenwriter Sherman Alexie, the University of Maine offered a five-week course based on his work.

The course, "Building the Fire: Novels, Short Stories, Poetry and Films of Sherman Alexie," was taught by UMaine Native American Studies Director Maureen Smith and Associate Professor of English Margo Lukens.

Alexie's talk April 19 was "Without Reservations . . . an Urban Indian's Comic, Poetic, and Highly Irreverent Look at the World."

Alexie, a Spokane Coeur d'Alene who grew up in Wellpinit, Wash., is an internationally acclaimed author of 16 books. He also is an award-winning director whose screenplay, *Smoke Signals*, based on one of his short stories, was the first feature film produced, written and directed entirely by Native Americans.



Robert Sheldon

Photo by Kathy Rice

Banding Together

THREE BANDS, 150 musicians and four conductors took the stage at the Maine Center for the Arts this

spring for the eighth annual Three Bands Concert to benefit Acadia Hospital in Bangor, Maine.

Young instrumentalists from Orono High School and Reeds Brook Middle School in Hampden shared the spotlight with members of UMaine's Concert Band.

Joining the musicians was Robert Sheldon, an internationally recognized composer of wind band music. Sheldon led clinics with the three bands prior to the concert, then served as guest conductor when each performed one of his compositions. The three bands combined for the concert's grand finale.

According to UMaine Sports Bands Director Christopher White, the concert provides an opportunity to see and hear the performance progress of music students of different ages and skill levels.



'I'll take food science to win'

FOOD WAS ON THE MINDS OF college students attending a competition at the University of Maine April 17, but the Jeopardy!-style event was no pie eating contest.

The North Atlantic Area Food Science College Bowl tested students' knowledge of topics ranging from microbiology and sensory evaluation to food product engineering.

Teams of two graduate and two

undergraduate students represented UMaine, Cornell, the University of Delaware, Rutgers University, the University of Massachusetts and Penn State.

The winning team is in national competition in Las Vegas in July, sponsored by the Institute of Food Technologists (IFT).

Members of UMaine's team participate in the Food Science Club, whose faculty advisor is Denise Skonberg.

IN THE WORLD OF SNOWMOBILING, FAST IS GOOD. But for a team of University of Maine mechanical engineering students, a cleaner, quieter, more fuel-efficient machine is better.

In March at the national Clean Snowmobile Challenge, the Arctic Cat snowmobile rebuilt by 12 UMaine students finished third out of 14 teams. Even more important, the UMaine team received the Gage Products Award for Best Fuel Economy and tied with the University of Wisconsin at Platteville for the Emitec Award for Best Value.

The University of Wisconsin-Madison won the competition with a hybrid gas-electric motor design.

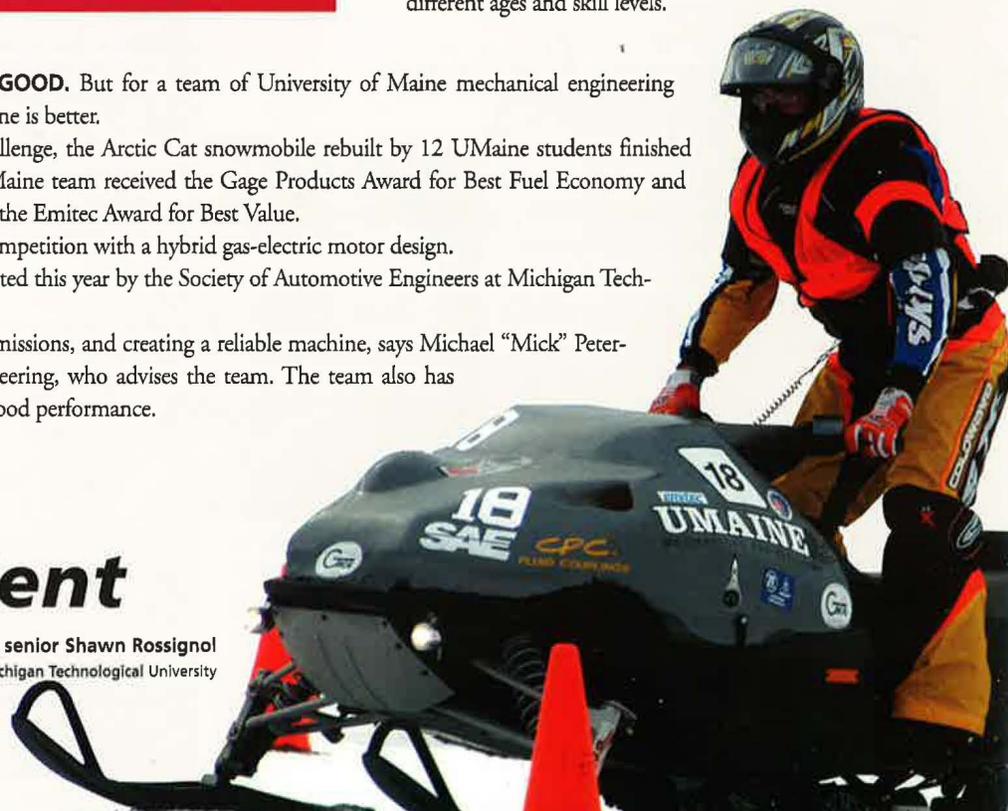
The annual Clean Snowmobile Challenge was hosted this year by the Society of Automotive Engineers at Michigan Technological University.

The competition focuses on reducing noise and emissions, and creating a reliable machine, says Michael "Mick" Peterson, UMaine associate professor of mechanical engineering, who advises the team. The team also has created computer models to maximize the chance of good performance.

Fast AND Fuel Efficient

Mechanical engineering senior Shawn Rossignol

* Photo courtesy of Michigan Technological University



70 YEARS OF SUCCESS

Seventy years ago, members of the University of Maine Class of 1909 invested in the future of their alma mater by presenting a \$1,000 check to the newly formed University of Maine Foundation. Today, that donation has grown into an endowed scholarship fund that has touched the lives of many UMaine students.

That initial investment and many others through the years have brought the University of Maine Foundation's total assets to \$125 million, including more than 800 endowment funds.

As one of the largest and oldest public university foundations in New England, the University of Maine Foundation provides more than \$4 million annually in scholarships and other forms of financial support for UMaine students, faculty and programs.

Since its inception on June 9, 1934, the foundation has existed to encourage gifts and bequests to promote academic achievement, foster research and elevate intellectual pursuits. Nearly 60 percent of foundation funding to UMaine supports student scholarships.

Today, the breadth and depth of the University of Maine Foundation can be characterized in one word — diversification. From the geographic range of its members to the 14 managers of investment portfolios and the myriad of giving options available to donors, diversification is the hallmark of its success.

"Lasting Impression" features a memorable person or event in UMaine history.

Taking a chance on the human spirit



Alumnus Robert Daigle, chairman,
University of Maine Foundation Board of Directors,
and president/CEO, Camden National Corp., Camden, Maine

Photo © Benjamin Magro

TO ENDOW A SCHOLARSHIP is to be an entrepreneur, taking a chance on the human spirit, says Robert Daigle, chairman of the board of the University of Maine Foundation. Facilitating that form of entrepreneurship is a goal of the independent, nonprofit foundation, which provides donors with a broad base of funding alternatives to support teaching, research and scholarship programs at the University of Maine.

In recent years, the nation's economic downturn caused some of the greatest stress on the foundation's investment portfolio, notes Daigle. Fund balances declined — in some cases to double-digit levels — and new donor activity slowed. However, the foundation's commitment to the university remained steadfast, with only a single-digit drop in the overall payout. This was, in part, made possible by the allocation of unrestricted funds and the implementation of a very successful Adopt-a-Student campaign.

Now, with the rebound of the market in recent months, investment portfolio appreciation and improved donor confidence have returned, manifested by an increase in the number and size of gifts.

Foundations like the University of Maine Foundation play an increasingly important role today in supporting higher education by providing the structure and efficiency needed for the partnership between public universities and private constituencies to work. In addition, the foundation can raise money for the University of Maine above what is available through state funding and can be responsive in meeting important university goals.

Looking ahead, the role of the foundation will likely increase as state funding — currently one-third of the university's budget — continues to shrink. The ability of Maine's land- and sea-grant college to maintain its prominence will no doubt depend on the success of the University of Maine Foundation in compelling those with affection for UMaine, or those with a sense of obligation to help another generation, to include the university in their philanthropy.

"The University of Maine Foundation, through its proven track record and diversity of giving options, is uniquely positioned to facilitate this ideal," says Daigle. "To that end, it is not unreasonable to believe that in the year 2074, the foundation will be overseeing an \$800 million endowment, enough to fulfill the entire scholarship needs of the University of Maine."

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