Ty Keltner used his spare time while completing his M.B.A. last academic year to create a model of the Gruening Building out of LEGO® bricks. At a cost of more than $1,100, the project was more ambitious than many graduate student theses. Keltner also built a web comic strip, complete with construction workers, local media personality Darryl Lewis and Gov. Sarah Palin. The model will be on permanent display in Wood Center.

Let’s get started!

View Keltner’s web comic strip chronicling his LEGO® construction project at www.uaf.edu/aurora/
FROM THE CHANCELLOR

Alumni and friends,

It’s September again, one of the best months of the year for watching the aurora borealis. The aurora is beautifully varied and constantly evolving. It inspires a sense of curiosity and mystery. Scientists try to capture its essence, artists its evanescence. This blending of art and science, of many strands into a spectacular whole, makes Aurora a fitting name for the new magazine of the University of Alaska Fairbanks.

Aurora, some of you may recall, was also the name of a UAF magazine years ago, but that is also fitting; we look north to the future but we never forget the past.

We can’t get too carried away by the aurora metaphor. The real aurora is elusive and fickle. It never shows up when you want to impress visitors. It flares up suddenly and brilliantly, then disappears just as quickly. UAF, on the other hand, is here to stay — constantly changing, yes, but with purpose and care. Our inspiration comes from the limitless heights of the northern sky, but our progress is firmly grounded in Alaska itself.

To our readers in Alaska, celebrate the return of the northern lights in the cool September air, then come inside where it’s warm and enjoy this first issue. To our friends Outside, I hope the colorful mix of stories reminds you of the vibrancy of Alaska and its premier university.

Welcome to Aurora.

Brian Rogers
Chancellor
chancellor@uaf.edu

Learn about Chancellor Rogers at www.uaf.edu/chancellor.

ABOUT THE COVER

Colorful sea anemones are found near hydrothermal vents in the Islands of the Four Mountains in the Aleutian chain. Researchers from UAF made more than 400 dives and explored 1,000 miles of coastline during a two-year assessment program. Story begins on page 6.

Photo by Shawn Harper.

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Photos by Todd Paris, ’83, UAF Marketing and Communications, unless otherwise noted. 09/20/08

America’s Arctic University
www.uaf.edu
Digging up the past

Students at this summer’s archaeological field school near the Gerstle River spent five weeks sifting through thousands of artifacts dating back to some of the continent’s first inhabitants.

Assistant Professor Ben Potter, who’s been involved with the site since the mid-90s, said their discoveries are globally significant.

“The site has a number of qualities that are extremely rare in the subarctic, whether in North America or Asia,” Potter said. “First of all, we have incredibly good preservation of organic materials that typically deteriorate in acidic soils of boreal forest settings. Another reason it’s important is that it’s extremely well stratified. The soil lays down like a layer cake, which helps us identify specific occupations and the artifacts that are associated with each other.”

Potter also said that the site is unusual in the number of artifacts unearthed.

“To this point I think we have around 10,000 to 12,000 fragments of stone tools and some of the tools themselves,” he said. “We’ve probably got about 500 tools that we’ve found so far in our excavations. For all of these reasons, it’s an extremely significant site.”

For their work at the site, which consisted of digging eight hours a day, six days a week for five weeks, students earned six academic credits.

Thomas Allen, an undergraduate anthropology major from Fairbanks, was particularly impressed with what he was helping to find at the Gerstle River site.

“Stones and bones are cool, but what they can actually tell you about what people were doing here 10,000 years ago, that’s really why I’m out here.”

— Thomas Allen, anthropology major

Susan Butcher Institute names founding director

UAF has created the Susan Butcher Institute, a program that aims to cultivate public service and leadership skills in Alaska residents. Butcher’s husband, David Monson (pictured below), will serve as the institute’s first executive director. He will develop a range of programs intended to inspire people, especially youths and emerging leaders, to improve their own communities through public service, volunteerism and taking on new challenges. The institute expects to offer a wide variety of workshops and seminars starting in fall 2010.

LARS opens barn doors

Muskooxen, caribou and reindeer greeted more than 600 visitors at the spring open house at the Institute of Arctic Biology Robert G. White Large Animal Research Station.

The station hosts the annual event to give the public a chance to see the spring calves and learn about large-animal science before the station officially opens for the summer.

Visitors saw how ultrasound is used to assess animal body condition and witnessed how muskoxen digest the coarse woody plants that make up their diet at interactive science displays hosted by scientists and students. Guides stationed along the tour path provided a running commentary of natural history about the animals and the facility.

Decades of observing the restless Earth

For the last 20 years, Alaska has been a safer place, despite being home to more than 50 historically active volcanoes. This security comes from the service and research conducted by a team of scientists with the Alaska Volcano Observatory, a joint project among the UAF Geophysical Institute, the U.S. Geological Survey and the Alaska Division of Geological and Geophysical Surveys. The observatory was founded in 1988, just 18 months before the eruption of Mount Redoubt in Southcentral Alaska.
New ‘Nook leaders

Home ice advantage

UAF alumnus Dallas Ferguson is the new head coach for the Alaska Nanooks hockey team. Ferguson was a four-year letter winner in his days as a player for the Nanooks and served as team captain during his senior year in 1996. His post-college career includes four years as a pro, two years as an assistant coach for the Fairbanks Ice Dogs and four years as the Nanooks’ assistant coach.

“Dallas has the plan, passion and broad support necessary to provide a foundation that Nanook hockey has been missing.” — UAF athletic director Forrest Karr

SeASONED VETERAN JOINS TEAM

Darryl Smith, a 17-year coaching veteran, was selected in July as the new head coach for the women’s basketball team. Smith’s experience includes 13 combined years as a head coach at Metropolitan State College of Denver, Wichita State University and Butler Community College. Most recently, he served as assistant coach for the NCAA Division I University of Nevada. Smith has a 267-163 career record, including four conference championships and four NCAA tournament bids.

“Darryl’s passion for teaching and learning is instantly recognizable.” — UAF athletic director Forrest Karr

Growing our own

A five-year, $700,000 gift from the Andrew W. Mellon Foundation will help support Native students seeking doctoral degrees at UAF. The money will fund up to four competitive graduate fellowships each year for students in the dissertation-writing phase of their studies. The goal of the program is to increase the number of Native people holding doctorates and in turn increase the number of Native faculty members at colleges and universities.

“The need for programs like this is vital across the United States, where there is significant under-representation of indigenous peoples on the faculties of colleges and universities.” — Brian Brubey, president’s professor of education

Icy climate clues

Institute of Northern Engineering Assistant Professor Matt Nolan and an international team of researchers pulled a 150-meter-long ice core from McCall Glacier in the Arctic National Wildlife Refuge this summer. “The ice core is the longest extracted from an arctic glacier in the United States,” Nolan said, “and may offer researchers their first quantitative look at up to two centuries of climate change in the region.”

Tasty tome

Historic Professor Carol Gold became a minor celebrity in Denmark after her 2007 book, Danish Cookbooks: Domesticity and National Identity, 1616 – 1901, made headlines throughout the country. Gold did several interviews in Denmark about the book, which offers insight on gender roles, literacy, identity and nationalism via three centuries of cookbooks. The book was published in both the United States and Europe and won a design award from the American Association of University Presses and a third place award from Gourmand, an international association devoted to promoting publishing on cooking, in the category “Best Culinary History.”

Cut, colored and coiffed

Nearly two dozen students joined the student body of the UAF Tanana Valley Campus this spring cohort in the campus’ licensed cosmetology pilot program. The students spent the spring basic cosmetology theory and moved on to practical training at local salons during the summer. They are expected to complete the three-semester program in December and will be eligible for state licensure upon graduation. TVC created the pilot program in response to reports from local salon owners of a serious shortage of licensed hairdressers in the greater Fairbanks area. At the time, owners reported at least 70 openings for licensed hairdressers.

By the numbers: TOTE Family Fun Fest

UA Museum of the North – June 8, 2008

• 1 circus tent
• 600 lids and parents
• 400 Alaska Native paper doll outfits
• 120 pounds of homemade casting dough
• 300 owl pellets
• 1,600 Popcorn seeds
• 1 PBS celebrity
• 4 hours of family fun

“Winning three years in a row is an honor and a tribute to the talent found at KUAC.” — Claudia Clark, KUAC producer

KUAC captures gold

KUAC TV producers added to their gold cache in June, bringing home television’s top honors for the third consecutive year. Producers Claudia Clark and Deb Lawton and writer/editor Aaron Ellertman won an Emmy Award for their KUAC TV production of “Alaska One Image Spots,” where viewers share their commitment to public television. The trio received the award at the National Academy of Television Arts and Sciences Northwest chapter award ceremony held June 7 in Seattle. The station also received two other Emmy nominations. This is the fourth consecutive year the station has been nominated for Emmy Awards.

Miles from where?

This summer, UAF installed a refurbished version of West Ridge’s iconic milepost sign. The sign was originally erected on West Ridge in 1973 as a symbol of UAF’s Geophysical Institute’s global reach in terms of research and collaboration. The original milepost sign was taken down in 2002 due to a major construction project. The current monument is an updated version of the original design.

“Winning three years in a row is an honor and a tribute to the talent found at KUAC.” — Claudia Clark, KUAC producer

KUAC captures gold
New discoveries in the Aleutians
By Carin Bailey Stephens

Héloïse Chenelot could feel the Steller sea lion’s sharp teeth through her dive hood. She was 30 feet underwater, on a dive near Tigalda Island in Alaska’s eastern Aleutian Islands. Six divers were in the water, but Chenelot and her colleague, Max Hoberg, seemed to be particularly attractive to the young marine mammals.

Hoberg ducked his head down into the kelp and held still. Three sea lions surrounded him. Juvenile or not, the animals were huge — each probably weighed around 300 pounds. One of the animals gently wrapped its mouth around Hoberg’s head, too.

“If they wanted to, they could crush your head in their jaws, but they didn’t. They were just curious, and they were amazingly gentle,” Chenelot said later. “A lot of thoughts go through your mind right then … but bolting to the surface in panic is obviously not an option. So you just have to think positive, calming thoughts.”

The researchers eventually cut the dive short and swam slowly to the surface.

It was the first of 440 dives the team made in the little-explored Aleutian Island chain during the summers of 2006 and 2007. There were more than 1,000 miles of coastline to explore, from near Unalaska-Dutch Harbor in the east all the way to Attu Island at the western end of the chain.

As he climbed aboard the R/V Norseman, a 108-foot converted crab fishing vessel and the “topside” headquarters for the divers, Stephen Jewett wondered whether sea lions would be a problem on every dive. The lead diver on the expedition and chief dive officer for the University of Alaska for the past two decades, Jewett was in charge of the divers’ safety, and curious sea lions were just one of many factors he had to consider.

The divers never had any problems with sea lions again. In fact, they saw relatively few of the endangered animals on the two-year expedition. What they did see, however, was an underwater world that none of them will ever forget.

Jewett and the rest of the UAF dive team, which included Reid Brewer, Chenelot, Roger Clark, Roger Defendall, Shawn Harper and Hoberg, were part of a larger team of scientists aboard the Norseman, all with a mission to assess the overall health of the coastal waters of the Aleutian Islands. Sponsored by the U.S. Environmental Protection Agency and managed jointly by the Alaska Department of Environmental Conservation and UAF, the project focused on measuring contaminants in the water around the Aleutians and determining the productivity and biodiversity of the underwater flora and fauna of the region. The project was part of the nationwide EPA Environmental and Monitoring Assessment Program, where regions are characterized by surveys of 50 randomly selected sites. Doug Dasher, a water quality scientist with ADEC, was the principal investigator on the project.

Although the region may appear remote and pristine, the islands and their coastal waters are not immune from human activity. Concerns that numerous areas in the vast Aleutian region may be contaminated, principally by petroleum products and some PCBs and heavy metals, were an impetus for the study. Many of these sites are related to World War II and Cold War activities. One is midway along the Aleutian Arc at Amchitka Island, where the United States conducted multiple nuclear tests. The largest of those tests, Project Cannikin, resulted in a 3-megaton underground blast in 1971.

Many scientists are concerned that contaminants pose potential threats to the marine ecosystems in the Aleutian and Bering Sea regions.

UAF alumni featured in this story: Héloïse Chenelot, ’03; Max Hoberg, ’75; Stephen Jewett, ’77, ’97; Reid Brewer, ’03; Shawn Harper, ’99.
Diver Reid Brewer swims through dragon kelp (Alaria fistulosa). Photo by Shawn Harper.

“Ah, my God, the beauty”
Shawn Harper, a UAF graduate student, photographer and amateur underwater videographer, grasps the rope attached to the rubber skirt and flips backwards, splashing into the water. It’s a graceful movement, slow and controlled, but nevertheless requires a total commitment from the diver as he tumbles into the 45-foot water. With one hand still holding the rope, Harper checks that his regulator and tank are working, and then he slips beneath the surface. He sinks slowly towards the bottom, about 40 feet beneath the surface, bubbles trailing quietly behind him.

As he adjusts the buoyancy in his dive suit to hover a couple of feet above the seafloor, Harper’s camera captures a bouquet of coraline algae that grows as a hard crust on the rocky substrate. This organism, officially a plant, contains enough inorganic and organic material that help provide sustenance for all marine creatures. Along the southern shore of the Aleutian Islands, the cooler, nutrient-rich waters from the deep ocean continuously replace the warmer, nutrient-depleted surface water. Jewett says the upwelling on the south side of the islands is part of the reason the area is so biologically productive.

“There is diversity out there is unbelievable,” added Jewett. “The mixture of invertebrates, fishes and kelps in that nearshore zone was head-and-shoulders above anywhere else I’ve dived in my 35 years of diving in Alaska.”

**Working at depth presented challenges**

Each person had a different job underwater. The first diver, usually Jewett, connected a 90-foot section of surveyor’s tape to the div’s anchor line and ran it out parallel to shore. As he or another diver videotaped the flora and fauna along the underwater line, a second pair of divers set along it three sets of quadrats, squares made out of white PVC pipe. The quadrats varied in size from about a yard square to less than a foot across.

Meanwhile, Mandy Lindeberg, an algae expert with the National Oceanic and Atmospheric Administration, walked the same area in the intertidal zone, where she collected seaweeds from tide pools and exposed beach.

Divers counted the number of organisms found in each quadrat, photographed them and collected samples. The area in the small quadrat, about 10 inches by 10 inches, was collected using a suction dredge. The underwater “vacuum” sucked the organisms into a collecting bag.

Collecting animals and seaweed from the seafloor offered challenges. One form of kelp is connected to the rocks with what scientists call a “holdfast.” The divers carried paint scrapers to remove the stubborn attachments. Sea urchins were also hard to collect without the sharp spines piercing the divers’ thick gloves.

**Working topside**

After up to an hour underwater and with collection bags attached to their waists, the divers returned to the Nosman, or as they put it, went “topside.” Once on the vessel, they labeled their sample collections, organized photos and videos, and prepared samples for future study.

“There really wasn’t any downtime,” said Chenelot. “If there was, we usually spent it talking to our fellow researchers about the interesting things we’d found and seen.”

and preventing light from penetrating. Typical good visibility underwater in Alaska is about 30 feet, so 100 feet is just amazing, Jewett said.

Even though the seawater is clear, it is packed with nutrients — inorganic and organic material that help provide sustenance for all marine creatures. Along the southern shore of the Aleutian Islands, the cooler, nutrient-rich waters from the deep ocean continuously replace the warmer, nutrient-depleted surface water. Jewett says the upwelling on the south side of the islands is part of the reason the area is so biologically productive.

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BUNIVERSITY OF ALASKA FAIRBANKS

**Pink algae, a Coke bottle and a world war**

Stephen Jewett saw it on the bottom, among the seaweed and marine creatures — a pink thing shaped like an old-fashioned glass soda bottle. He picked it up with the rest of his collection and brought it to the surface.

The team was diving in Massacre Bay on Atka Island, the site of the only World War II combat on United States soil. Thousands of Japanese and hundreds of Americans were killed during the battle.

The Nosman had run into bad weather and the crew was anchored for protection from the winds. Unable to sample where they had planned because of weather, the divers decided to investigate Massacre Bay.

World War II artifacts were strewn on the seafloor, including coffee cups, silverware, ammunition and ammo casings, and even fully loaded shells. Among the artifacts were lots and lots of old Coca-Cola bottles.

According to Jewett, Coke was the main soft drink available during the World War II era. “This is what soldiers and sailors drank out here,” said Jewett.

Many of the submerged artifacts were coated with the hard pink crust of a coralline algae that grows extremely slowly. The Coke bottle Jellies found might have been discarded by a serviceman in the early 1940s, making the thin coating about 60 years old.

The pink algae is one of the oldest living plants on Earth. According to Jewett, it is 700 years old. The algae, called Clathromorphum nesioticum and Lithothamnium sp., are found throughout the Aleutian Islands, and lend a bright rosy hue to the rocks and boulders of the seafloor.

Another unique feature of these coralline algae is that they are extremely vulnerable to disturbances in the marine ecosystem. Some of them are especially sensitive to ocean acidification, and may provide important clues to changes in marine ecosystems due to global warming.
The divers and research team also had adventures above the water. After all, they were in one of the most seismically active regions in the world. Around 2 p.m. on July 13, 2007, they felt a fairly strong earthquake. According to Jewett, the tremor “traveled up the anchor line and up through the water columns” and rattled the boat. Dasher immediately got on the radio to make sure the team was safe from potential tsunamis. The quake was magnitude 5.8 and only 30 miles away, but no tsunamis were generated.

Cold hands, warm water

One week later, while the team was anchored near the Islands of Four Mountains, one of the three active volcanoes on the islands, Mount Cleveland, began to belch black smoke and ash. The Norseman was only about five miles away. “We could see ash falling . . . one side of the volcano was all black and one snow covered,” said Jewett. “I suppose it’s a common occurrence in the Aleutians, but we got to witness it.”

As the team worked near Kagamil Island, they discovered a series of volcanic vents, each an area of about 100 square yards, although the divers spent most of a day circumnavigating Kagamil Island looking for more. The new kelp is called golden V. It was found in only two places in the region of the hydrothermal vents, each an area of about 100 square yards, although the divers spent most of a day circumnavigating Kagamil Island looking for more.

“There is a possibility that there is a correlation between the golden V kelp and the chemical constituency of the water near Kagamil Island, but we don’t know yet,” said Jewett.

A long way from home

The scientists on the Norseman were a long way from home, and it was Jewett’s job to make sure the team returned in one piece. “We were completely accident-free. We had six to seven divers and almost every diver was in the water almost every day. Our UAF divers are really top-notch,” added Jewett.

For the most part, the team was alone out there. “There is no traffic out there. One day we were completely alone out in the Aleutians. If you need help, it may be a long ways away.”

20 new species and counting

Over the course of two summers and 440 dives, the scientists who surveyed the nearshore region of the Aleutian Islands discovered at least 20 new species. As the samples collected during the dives continue to be analyzed, scientists expect that even more species will be discovered.

Roger Clark, a marine taxonomist and consultant, is currently sorting and describing the new species. Complete scientific results from the dives are expected in 2009.

2006 Eastern Dives

2007 Western Dives

A l e u t i a n I s l a n d s

P a c i f i c O c e a n

B e r i n g S e a 

DUTCH HARBOR

AKUTAN

ADAK

ATKA

A L A S K A

View video from the dives at www.uaf.edu/aurora/
Using innovative technologies, KuC delivers instruction to students in far-flung villages throughout the state, but primarily those of the Yukon-Kuskokwim Delta.

In the early days, providing education to village residents required instructors to travel by small aircraft and rely heavily on VHF radio for messages. Later, instructional television was beamed to villages that could receive KYUK’s broadcast signal, turning KuC instructors into TV celebrities. Today new tools and technology make it possible for KuC’s instructors and staff to interact with students in ways that were unimaginable 35 years ago.

KuC’s academic offerings include certificates in community health, rural human services, information technology and applied business; associate degrees in early childhood education, human services and tribal management; and a new bachelor’s degree in Yup’ik language and culture. Sixteen students were ready to enroll in the program in fall 2008.

“The B.A. in Yup’ik language and culture is an exciting and timely development — children here still speak Yup’ik as their first language,” said Mary Pete, KuC’s director. “As immersion programs expand, teaching staff in the region are looking to Kuskokwim Campus for leadership as they enhance their own skills and credentials.”

The Kuskokwim Campus has conferred more than 2,300 certificates and degrees on people from throughout the region. KuC’s efforts at promoting adult basic education have resulted in more than 1,400 students receiving GEDs, allowing many to realize lifelong dreams of a high school diploma and encouraging others to advance their careers and pursue higher education.

[*UAF alumna in this story: Mary Pete, ’79, ’84*]

Listen to an APRN news story on the new Yup’ik bachelor’s degree at [www.uaf.edu/aurora](http://www.uaf.edu/aurora/).
“I came unglued. I cried and cried,” Jones said. “It was a shock to get my very first written communication from him ever, and it was an e-mail, of all things.”

Jones, who was serving the chancellor as assistant for equal opportunity at the time, had counseled her father to stay busy after her mother died in 1991.

“He was lonesome. He had nothing to do … so I said, ‘Go back to school,’” Jones said. A woman for whom R.G. did yard work in his hometown of Longview, Texas, recommended the East Texas Literacy Council. It was his tutor there who had him first write out in longhand the message he wanted to send his daughter in Alaska, then type it on the computer keyboard.

“It was a simple message, really, just a couple of lines,” Jones said. “And at the end of the message the tutor wrote, ‘R.G. did this all by himself!’”

Jones said he told her later that when he put his hands on the keyboard the first key he hit was a P. He held it down, not anticipating the effect that would have, until there was a whole string of Ps.

“He got all upset because he thought he broke it. He told me he’d ‘P’d’ all over it!”

The value of education
R.G. Bouchum (he always said it stood for “Real Good”) grew up on a sharecropper’s farm in Texas as one of nine children. His father made sure all the girls got college educations because he didn’t want them to be dependent, but he figured the boys could always find work. R.G. made it to the fifth grade before he had to quit school to work in the fields. He learned the alphabet but couldn’t quite string it all together to actually read. After he married Onnie V. Miles in 1943, she handled any business that required the ability to read and write.

R.G. and Onnie understood the value of education, and they were determined that their children would have a better life. For many years they worked long hours
Inspired by this story? Support this or other scholarships at UAF at www.uaf.edu/giving.

You’re never too old to learn.

Unika L. Nelson

“I love understanding how people interact with each other in different situations. There’s no right or wrong approach,” says Unika L. Nelson, a communication major and the 2007 recipient of the R.G. and Onnie V. Bouchum Multicultural Scholarship. She was planning to major in music, but switched because she loved her first-semester communication class so much.

Originally from Detroit, Mich., Nelson has lived all over because her dad is in the Coast Guard. She graduated from Kodiak High School in 2004 and attended her first semester at Kodiak College, then transferred to UAF in spring 2005. She is thinking about pursuing a career as a college admissions diversity director.

“I think that’s really important. There are so many different types of people, not even just talking about race, but culture, ethnicity. Not everyone learns the same, communicates the same, thinks the same. It’s so important that people are aware of that.”

A home at the food bank

In 1998, after R.G. had a stroke and could no longer stay alone at his home in Texas, Dorothy and Lloyd persuaded him to come live with them in Fairbanks. Not able to sit still very long, he was soon volunteering with Foster Grandparents and participating in many activities at the Fairbanks Resource Agency’s Senior Center. One of the volunteer jobs he took up with a passion was at the Fairbanks Community Food Bank.

The staff there quickly figured out that R.G. had some very special gifts. “His job looked like it was just repackaging rice and flour,” said Samantha Kirstein, the food bank’s executive director. In reality, she says, his job was to share stories about his life and his strong work ethic with young people who were in need of some attitude adjustment.

The courts or the school district sometimes send young first offenders to perform community service in lieu of jail time or detention. One of the places they can put in their hours is at the food bank.

“We connected them with R.G. and he told them great stories,” Kirstein said. “It wasn’t easy growing up as a black man in Texas during the time of segregation, but even with all the challenges he’d met in his life, even though he was wheelchair-bound, he was still working.”

“If he couldn’t get their attention any other way he’d take off his socks and show them his stump,” Kirstein said.

That stump was a harsh reminder of R.G.’s first winter in Fairbanks. Despite urging from Dorothy and Lloyd to come indoors after a big snowfall, he kept shoveling their driveway and ended up with frostbite, which cost him his leg because of circulation problems. But even the amputation didn’t keep him from helping out with chores and volunteering at the food bank, Dorothy said.

Because Bouchum couldn’t read throughout most of his life, Kirstein notes that all the challenges he faced were compounded.

“He was illiterate not because of his brain power — he was one of the smartest people we ever had around — but because he didn’t have the opportunity.”

“Everything he had to share with us was very worthwhile,” Kirstein said.

R.G. was flattered by the scholarship his daughter set up in his and Onnie’s name, and he met the scholarship recipient each year until his death in November 2007 at age 90. Although his e-mails have ended, R.G. Bouchum’s extraordinary accomplishment at age 77 embodies his philosophy: you’re never too old to learn.

R.G. Bouchum keeps an eye on a throng of Fairbanks Community Food Bank volunteers from his wheelchair in this 2007 painting by Charlotte Jeffers Sareon.

"You’re never too old to learn."
Alaska 4-H prepares students for real life
By Debbie Carter

When Owen Ala raised pigs, sheep and steers with his Kenai Peninsula 4-H group and butchered his first animal in fourth grade, he never realized how handy that experience would become in medical school.

Ala, 29, began a five-year residency in orthopedic surgery at an Albuquerque, N.M., hospital in summer 2008. He is one of a group of distinguished Alaska 4-H alumni who have gone on to succeed in college and in a variety of careers.

The 4-H program, part of UAF’s Cooperative Extension Service, emphasizes a hands-on approach to learning life skills, citizenship and leadership. A handful of 4-H agents across the state run the program with the help of more than 1,100 youth and adult volunteers.

Local 4-H clubs emphasize learning about cooking, sewing, gardening, science and raising livestock, as well as government and a host of other topics. 4-H kids have also participated in a moose hunt, earned emergency medical certification and studied crime scene investigation. Club members themselves choose what to emphasize.

Kids and parents learning together

Nancy Veal grew up with 4-H in eastern Oregon, and she became a market livestock leader on the Kenai Peninsula when her own kids were of 4-H age. She volunteered for 20 years and has led 4-H programming on the Kenai the past eight years.

Veal has seen Ala and others grow up and become teachers, business owners, farmers, veterinarians and doctors. Some former 4-Hers, like herself, have become 4-H leaders.

The program continues to be successful, she believes, because kids and parents are involved and learning at the same time. The kids work with guidelines, project books and deadlines. Those who raise livestock are accountable for an animal’s welfare.

“You become more responsible,” she said.

Since 4-H kids care for their animals, they also learn a lot of veterinary medicine. Ala learned how to give shots, dehorn and castrate animals, and dress wounds. Caring for animals and making multiple visits to doctors for his own health issues, including broken bones, encouraged his interest in medicine.

Last fall, as he has done on several visits home, Ala butchered a pig with a group of 4-Hers, taking time to talk to them about bones, muscles and organs.

The main philosophy Ala learned from 4-H is that you just jump in and learn. That approach helped in medical school, he said. “I was much more comfortable getting in and doing things because I’ve been doing it my whole life.”

“You can do it!”

Chelsey Schell Kuester, who spoke at a 4-H youth leadership forum on the UAF campus earlier this year, said 10 years of 4-H gave her the confidence to try new things and the message, “You can do it!”

“It’s that simple seed that they planted,” she said. “It’s a huge confidence builder.”

Kuester, 26, started participating in 4-H at age 5 when an older sister joined a sewing class. The leader encouraged her to sew also, and she made a doll, then doll clothes, and her own clothing by the time she was 7.

Growing up in Michigan, her 4-H experiences revolved around arts and crafts projects, including sewing, macramé and glass etching — skills that leaders and parents contributed. During the summers, she canoed on rivers at 4-H camp, despite being nearly blind in one eye (and not being allowed to wear glasses while in a boat) and practiced shooting sports.

After graduating from college, Kuester became a television journalist in Fairbanks, where she reported on a variety of 4-H camps and activities that rekindled her interest in the program.

This past January, she stepped into new territory by becoming the community development director for the Downtown Association of Fairbanks, which promotes the downtown area.

A family affair

The screen saver on Matt Bray’s computer features several domesticated goats clambering over rocks. Bray, who is finishing a doctorate in permafrost engineering at UAF, cannot remember life without goats — or without 4-H.

His mother, Annette, is a longtime leader and his sister, Maria, has served as a leader for a 4-H club north of Fairbanks for seven years. The family’s current herd of goats numbers about 30, and they have provided scores of the animals for 4-H youth and others who want to raise the Toggenburg and Saanen dairy breeds.

Matt, 31, is the primary caregiver for the herd, but both Bray siblings showmanship clinics every year to 4-Hers who want to learn about grooming goats and showing them at the fair. The family also serves as an unofficial source of goat-care information for goat owners.

Since Bray grew up around 4-H and raised animals, joining 4-H when he was 8 seemed like a natural progression. Every summer for about 10 years, he took care of pigs, calves and goat kids at the Tanana Valley State Fair. Keeping livestock at the fair meant that he practically lived there for the week to care for them.

“You take them to the auction and hope you get a good price,” he said.

Most of what he learned about raising animals came from his family but 4-H provided an opportunity to get together with kids with similar interests.

Dr. Ala, who graduated from Cornell University medical school in May, says the skills required for dissecting a cadaver or performing surgery are very similar to the skills required for butchering a pig or steer. Through 4-H, he learned the basics of anatomy.

“ ‘I kind of had a leg up,’” he said.

His 4-H public speaking experiences also help him present or steer. Through 4-H, he learned the basics of anatomy.
Unlike a typical 4-H livestock project, which involved raising animals for the fair, the llamas tended a year-round goat herd and handled most of the animal care themselves.

Matt continues to enjoy raising goats and the satisfactions that come with it, he said, such as assisting with a trouble-free birth of twin goat kids and the ability to produce milk from a healthy, known source.

“I work with goats for the little things — the small moments when they bring a smile to your face,” he said. “The greetings of a bunch of goat kids in the morning when you bring them their bottles of milk and you know they think you are the best person in the world. When the goats feel frisky and run and play and jump … looking out and seeing a bunch of goats relaxing in the morning sun, chewing their cud with a look of complete contentment.”

Learning leadership

Rocki Hanscom, a senior majoring in political science at UAF, said her 4-H experiences, which emphasized citizenship and government, helped shape her career interests. She is considering a career in foreign service or in international law.

Hanscom, 21, got her 4-H start as a Cloverbud, working in her mom’s community garden behind Denali Elementary School in Fairbanks. She entered produce and flowers in competitions at the Tanana Valley State Fair. During second grade, she acquired a pet guinea pig, Nestle, and learned how to show him at the fair. She started giving demonstrations in second grade as well, on topics such as how to transplant a plant. She also learned arts, cooking and sewing, and participated in the fair’s bake-off and fashion show.

During eighth grade, Hanscom started working on a 4-H government project. She and other 4-H kids lobbied the Alaska Legislature on a livestock liability bill, which limited the liability of livestock owners who show animals in public places. Meeting with legislators, she said, “was a real educational experience.”

The following summer, she participated in a 4-H exchange to Maine and in Citizenship Washington Focus, a citizenship program for 4-H teens in the nation’s capital. She followed that up with a national 4-H leadership conference her freshman year of high school. She helped plan the event the following year and led a session for the conference.

Before her first semester at UAF, Hanscom became an intern for U.S. Sen. Lisa Murkowski and observed the dynamics of the senator’s office up close. She returned to the senator’s office in June 2008 to coordinate the high school internship program. 4-H definitely improved her leadership and public speaking skills, and helped her pursue her interests in college, Hanscom said.

“A lot of people think that 4-H is animals and gardening and cooking and sewing but it’s just so much more than that,” she said. “It’s helped me get to the next level, to get an internship.”

In Alaska, some 10,000 kids participate in 4-H sponsored events, whether it’s after-school clubs, special-interest classes or more traditional 4-H activities. They all fulfill the 4-H philosophy: learn by doing.

“Having a trained medic working as part of the SWAT or riot units can mean the difference between life and death.”

Sharma then illustrated how a tactical emergency medic on the SWAT team could quickly intubate the officer or begin performing advanced life support within a matter of seconds.

“Ambulances and fire department paramedics aren’t usually versed in the tactics of a SWAT team or the riot squad and aren’t equipped for a situation where they could come under fire.”

Sharma says, “Having a trained medic working as part of the SWAT or riot units can mean the difference between life and death.”

“Having a trained medic working as part of the SWAT team or riot units can mean the difference between life and death.”

He served as a volunteer firefighter, an emergency medical technician and later a paramedic before going through nursing school. Sharma found his work addicting and hopes his own nontraditional career path will inspire other nurses to consider second careers as tactical emergency medical personnel. However, after 10 years in law enforcement, he is no longer a police officer.

“Having a trained medic working as part of the SWAT or riot units can mean the difference between life and death.”

The TEMS team now boasts four medics, including two EMTs and one paramedic, and was the first police-based team in Washington to offer advanced life support services, including medications, IVs and some advanced trauma life support surgical procedures.

Sharma says his background as an emergency nurse brings a fresh perspective to his police work.

When Navin Sharma, ’79, ’81, couldn’t find the perfect job, he created it.

In 1997, Sharma discovered a way to merge his experience in nursing with a career in law enforcement. He was working as a full-time police officer with the Vancouver (Wash.) Police Department. Sharma, who began working as a nurse in the early 1990s, continued to work on call as an emergency room nurse at Providence Portland Medical Center, in Portland, Ore.

Sharma is credited as the driving force behind creating the tactical emergency medic unit for his police department. He remembers approaching the SWAT team’s commander about the idea of assigning specially trained emergency medical technicians to the team.

“I gave him a scenario where the airway of one of his SWAT officers was compromised,” Sharma says. “If the fire truck, which was several blocks away, responded to the call, it would have taken approximately six minutes, and the officer would have died.”

Sharma then illustrated how a tactical emergency medic on the SWAT team could quickly intubate the officer or begin performing advanced life support within a matter of seconds.

Ambulances and fire department paramedics aren’t usually versed in the tactics of a SWAT team or the riot squad and aren’t equipped for a situation where they could come under fire.”

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“The TEMS unit I helped set up is doing very well and continues to provide quality care to the citizens and officers during every critical mission.”

Sharma was recently appointed to the Oregon State Trauma Advisory Board and he made contributions to Tactical Emergency Medicine, the first textbook on the subject.

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Creating the perfect job

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Alumni teach schoolchildren to say “I Know I Can”

The University of Alaska College Savings Program and the Alaska Commission on Postsecondary Education expanded the I Know I Can outreach effort in 32 classrooms across Alaska this year. UA alumni volunteers read the colorful picture book to an estimated 730 school children.

I Know I Can features animal characters encouraging children to consider college and career choices, and to start thinking about those choices now. The university and ACPE started the program last year. UA alumni who participated include Jan Olson, Tania Chucas, ’93, ’08 (pictured above) and Tamara Hornbackule, ’86.

1950s

Joe, ’58, and Ann, ’57, Tremarello gave $300,000 to establish the Joseph Tremarello Jr. and Rose R. Tremarello Memorial Fund, in honor of Joe’s late mother. She supported student athletes on the track and women’s varsity basketball teams. Joe formerly coached the women’s basketball team, and Ann serves on a university registry for nearly 45 years, retiring in 2002.

1960s

Vera Alexander, ’65, was honored with the dedication of a new classroom at UA, room 201, in the OcNeill Building on West Ridge. renamed the Vera Alexander Learning Center. After receiving her doctorate in marine science at UA in 1969, Vera became an associate professor at the prestigious Institute of Marine Science on the Fairbanks campus. In 1980, she became the director of IMS. When the UA School of Fisheries and Ocean Sciences was formed in 1987, she became its first dean and served for nearly 26 years, until 2003. Vera is a professor emerita and is currently on the advisory board for the UAF Pollock Conservation Cooperative Research Center. She is also the president of the Arctic Research Consortium of the United States.

1980s

Million Luddington, ’87 — My B.S. degree in civil engineering from UAF has allowed me to manage design and construction programs and projects all over the U.S. and the world. My recent three years in Iraq allowed me to lead the programming of $1 billion in Iraqi national transportation and telecommunications projects for the Coalition Provisional Authority and serve as project manager for over $100 million in Saad City sewer repairs with Washington International/Black and Veatch, highlighting an eventful and exciting career. After many years I have recently returned to Fairbanks to accept a position with Agios Environmental as engineering project manager for the air force at Elmendor FAB in connection with an $126 million renovation/new construction project. Thanks, UAF!

2000s

Suzanne Evans, ’01 — Since I graduated from the University of Alaska at Fairbanks, I started teaching art classes with the University of Alaska through Chilkot Arts and Culture and UAF in Fairbanks, Alaska. I also worked as a counselor counseling individuals throughout the state of Alaska that had substance abuse issues. I hope to work as a substance abuse counselor someday in the future. In 2001 I brought Irene Bedard’s art to Juneau, the capital of Alaska, from L.A., California, to perform for the community. It was a memorable moment to see her perform. She encouraged young high school students to attend college after high school and that they can achieve their dream of what they want to be in the future.

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Alumni compete at Beijing Olympics

Matt Emmons, ’03, and Jamie Beyerle, Matric., two former members of the UAF rifle team and winners of multiple NCAA rifle championships, represented the U.S. at the 2008 Summer Olympics in Beijing, China. Emmons (pictured at left) captured his second career Olympic medal, taking silver in men’s 50-meter prone rifle. (He won the gold medal in the same event at the 2004 games in Athens.) Emmons was on track to win gold in men’s three-position when he accidentally misfired on his last shot, which knocked him off the medal stand and into fourth place. Beyerle, competing in her first Olympics, finished fourth in women’s 10-meter air rifle and fifth in three-position.

Emmons’ wife, Katy, a shooter for the Czech Republic, won the gold medal in air rifle and a silver in three-position.

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