



AURORA

FOR ALUMNI AND FRIENDS OF THE UNIVERSITY OF ALASKA FAIRBANKS SUMMER 2018

What gives walruses
the willies?

Plus: Master machinist

Animal doctors made
in Alaska

AURORA

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Spooked easy

Time-lapse cameras set up by former UAF researcher Lori Polasek have documented how planes, boats and sightseers cause walrus to flee beaches.



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2018 COMMENCEMENT



Graduates from UAF Community and Technical College gather on the Carlson Center's main floor during the commencement ceremony May 5, 2018.

JR Ancheta/UAF



JR Ancheta/UAF



JR Ancheta/UAF



JR Ancheta/UAF



Zayn Roohi/UAF



Zayn Roohi/UAF

Across all campuses, about 1,300 students received degrees from UAF in the 2017-2018 academic year.

Several hundred students attended commencement May 5 in Fairbanks at the Carlson Center. With a low temperature of 33 degrees, wind gusts above 20 mph and a few snow flurries in the air that day, few people lingered outside.

Inside, Aaron Cottle, a business graduate, spoke for students.

Three people received honorary doctorates: North Slope leader Jacob Anaġi Adams Sr., Oglala Lakota teacher Loretta Afraid of Bear-Cook and Alaska musician James “Hobo Jim” Varsos. Former U.S. Senate aide Althea St. Martin received the Meritorious Service Award.

Clockwise from top: Graduates look down toward the audience at the balcony of Old St. Joe’s Hall before the 2018 UAF Northwest Campus graduation ceremony on May 10 in Nome. At the Kuskokwim Campus on May 3, from left, associate degree recipients Samantha Jackson, Maryanna Jimmie and Berntina Sankwich show their feelings. Myriam Imhoff, at left, hugs UAF academic advisor Donald Crocker in Fairbanks after receiving her master’s degree in elementary education. From left, Patty, Daniel and Kelly Eagan, triplets who grew up in Fairbanks, crowd into a photo frame after commencement in Fairbanks. LaDonavan Wilder, a communications and sports management major, holds his diploma during commencement in Fairbanks.



JR Ancheta/UAF

Science Potpourri wows the crowd on its 25th anniversary

UAF scientists were stymied briefly in the early 1990s when a community group for which they had done kid-friendly science demonstrations dropped their program after two years.

Instead of quitting, they went bigger.

“I sat down with Professor Tom Clausen ’75, and we decided to hold a science-themed day for the community,” recalled Marlys Schneider ’74, then a laboratory manager with the Chemistry Department.

Twenty-five years later, the annual Science Potpourri is booming. About 1,200 people attended the silver anniversary event at the Reichardt Building in mid-April.

They ate ice cream frozen with liquid nitrogen, created landscape maps using a sandbox, and viewed X-ray images of tools, socks and

other items found in the stomachs of dogs with bad eating habits.

Schneider and other organizers held the first Science Potpourri at Wood Center.

“We were amazed at the turnout,” Schneider said. “After that, we didn’t dare not do it again.”

As the event expanded, it moved to the Reichardt Building, home base for the College of Natural Science and Mathematics. The number of participants, volunteers and sponsors also grew.

Hild Peters ’14, the college’s executive officer, told the Fairbanks Daily News-Miner that more than 150 people volunteered to stage the free, three-hour event this year.

“This is a special event for me,” said Anupma Prakash, UAF’s provost. “I have been to every one since 2002, when my children were young and attended as participants. I have watched them grow up over the years, and now they are volunteers at Science Potpourri.”



JR Ancheta/UAF



JR Ancheta/UAF

Top: A crowd at the 2018 Science Potpourri reacts to a mock volcano explosion in front of the Reichardt Building.

Center: Tom Clausen, who helped start the Science Potpourri, returned to help celebrate the 25th anniversary.

Bottom: Participants in the 2018 Science Potpourri created these “pet rocks.”

Open resources help cut costs

The cost of textbooks often astonishes college students. UAF eLearning has launched a new website that can help avoid that sticker shock while also sharing much more from the expanding universe of open education.

The site, <http://open.uaf.edu>, features information about open education practices and resources worldwide. Eventually, the site will allow faculty members to share their courses, content and resources. Prospective students looking for teachers who use open education resources instead of costly textbooks may also find the site useful.

Last year, UAF's online courses and programs assisted students in 172 Alaska communities, 49 states (plus Washington, D.C.) and 18 countries, and eLearning managed exam proctoring for 8,387 online students.

Learn more at <http://elearning.uaf.edu>.

Salmon could win and lose in changing climate

Climate and landscape change pose threats to Pacific salmon, especially in lowland streams that are exposed to concentrated human development and are particularly sensitive to warming and drying. But the future is not all doom and gloom. Longer ice-free growing seasons and new lakes formed by retreating glaciers will probably help some salmon populations.

A synthesis paper published in the October 2017 edition of the journal *Fisheries* describes how researchers from the University of Alaska Fairbanks Institute of Arctic Biology, University of Alaska Anchorage, University of Alaska Southeast, U.S. Geological Survey, and the U.S. Fish and Wildlife Service examined patterns of climate, landscapes and fisheries in the past 70 years to help

understand where salmon ecosystems may be headed. They focused on the Kenai River in Southcentral Alaska.

"Salmon are incredibly adaptable, and right now they are facing serious challenges and new opportunities all at the same time. We should expect some surprises in how they respond," said report lead author Erik R. Schoen, with the Alaska Cooperative Fish and Wildlife Research Unit at IAB in Fairbanks. "Some of the salmon runs that Alaskans have relied on for generations are probably going to decline, but other runs may become more productive. We can't predict the future, but we can take action now to help mitigate any losses and take advantage of new opportunities."

Read the full paper at <http://bit.ly/uaf022062>.



KUAC loves kids

Generations of Fairbanks kids have grown up listening to and watching KUAC, and now the station has launched a club just for this young audience.

The KUAC Kids Club offers members multiple events each year, including private screenings of upcoming shows and meet-and-greets with favorite PBS characters.

The kids also receive access to educational games and videos.

Kids Club members can hear their names on air or read them online during their birthday months.

KUAC also sends emails about events, games and new programs. Local, kid-friendly businesses offer coupons to members.

All children in the same family can join the KUAC Kids Club for \$5 per month. Visit www.kuac.org/kidsclub/ for more information.



Jonny Armstrong

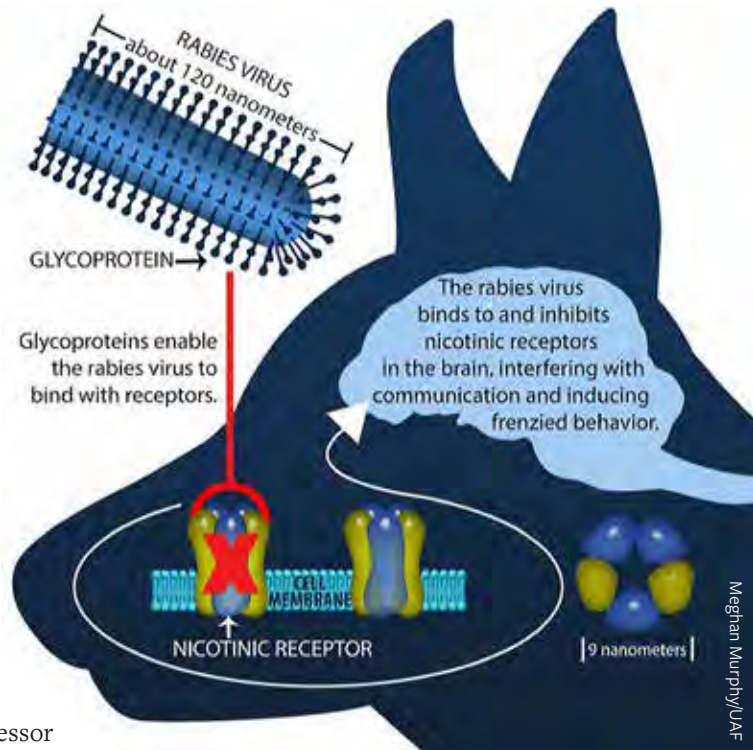
How rabies changes your dog's mind

Anyone familiar with the story of Old Yeller [spoiler alert] can appreciate Travis' heartbreak when he's forced to shoot his furry friend after the dog is bitten by a rabid wolf. Imagine your faithful companion suddenly becoming a frothing, seething mass of teeth and claws. While there's still no cure for the disease, new research is showing how rabies affects the host's behavior to help spread the virus.

A recent study published in the journal *Scientific Reports* shows how a small piece of the rabies virus can bind to and inhibit certain receptors in the brain that play a crucial role in mammal behavior. This interferes with communication in the brain and induces frenzied behaviors that favor the transmission of the virus.

Dr. Karsten Hueffer, lead author and a professor of veterinary microbiology at UAF, said he hopes the findings will help scientists better understand and treat the infectious viral disease.

"Many infectious agents change behavior in their host, but we do not understand how they do this," he said. "Our study provides, for the first time, a detailed molecular mechanism for how an infectious agent induces specific behaviors."



This illustration shows how the rabies virus binds to and inhibits nicotinic receptors in the brain.

New network provides toxin education



Paralytic shellfish poisoning is becoming a growing danger as northern waters warm. A new organization hopes to help Alaskans avoid the occasionally fatal consequences.

Alaska Sea Grant, operated through UAF's College of Fisheries and Ocean Sciences, has joined with the Alaska Ocean Observing System to

coordinate a new statewide network to help Alaskans stay safe. The Alaska Harmful Algal Bloom Network involves tribes, agencies, scientists and community members who educate Alaskans about the risks of ingesting toxins and how to avoid doing so.

The toxins can become concentrated in shellfish during harmful algal blooms. Such blooms are growing more common with warmer waters. The state requires testing for commercially harvested shellfish, but people who collect shellfish for recreation or subsistence are not subject to testing requirements.

Since 1993, four people have died and more than 120 have reported symptoms after eating clams, mussels, cockles and scallops they harvested from Alaska beaches. The symptoms of paralytic shellfish poisoning include tingling of the lips and tongue and trouble breathing.

Read more at <http://bit.ly/uaf022860>.



Melting glaciers, but decreasing runoff

The annual volume of water from melting glaciers has begun to drop in almost half of 56 large glaciated river basins, a recent study by Regine Hock of the UAF Geophysical Institute and

Matthias Huss of ETH Zürich in Switzerland found.

The researchers expect the trend will expand to other basins and affect water supplies across the globe.

As glaciers around the world melt, they at first provide more water to their river basins. But as

the glaciers shrink, runoff at some point decreases.

Hock and Huss found that almost half the basins they studied have already passed their “peak water,” which means their runoff is already decreasing.

Read more at <http://bit.ly/uaf022861>.

Todd Paris/UAF

Student aids borough efficiency

Riley Troyer '18, while a physics student at UAF, helped the Fairbanks North Star Borough automate parts of its utility billing system, saving hundreds of labor hours per year.

During the 2017-2018 academic year, Troyer collected and analyzed data for the borough through its partnership with UAF's Alaska Center for Energy and Power.

Troyer also worked on computer code to identify specific energy costs at pumps, fans and heat sources in borough buildings.

Men's hockey and women's basketball coaches hired

Erik Largen '10 is the Alaska Nanooks hockey program's 10th head coach, and Kerri Nakamoto is the women's basketball program's 14th.

Largen, 31, is the second-youngest head coach among the 60 schools with NCAA Division I college hockey programs. Largen graduated from West Valley High School in Fairbanks. He played as a goaltender for the Nanooks from 2006-2008 and had served two seasons as an assistant coach at UAF.

Largen took over from Lance West, who served a year as interim head coach after Dallas Ferguson resigned.

Nakamoto has served since 2013 as head coach for fellow NCAA Division II program California State University at Monterey Bay. Prior to that, she spent a decade as an assistant coach at other California colleges. She played four years at the Division I University of San Diego. She has a master's degree in education school counseling.

Nakamoto succeeds Brett Sawyer, who served a year as interim coach after Cody Bench's departure.



Paul McCarthy



CSUMB Athletics



New bumblebee species ID'd

Three bumblebees preserved and labeled in the collection at the University of Alaska Museum of the North

are members of the first new

North American bumblebee species discovered in almost 100 years.

Insect curator Derek Sikes sent bumblebee samples from the entomology collection to Paul Williams, an expert at the Natural History Museum in London. Williams determined that three of the bees are members of a previously unknown species which was given the name *Bombus kluanensis*.

The bees have been found only in Denali National Park and Preserve and in the Kluane region of Canada near the Alaska border.

Read more at <http://bit.ly/Aurora-brief-bee>.

Ice cellar monitors help combat climate change

Families who rely on subsistence game can sometimes lose their food supply due to climate change. Ice cellars, which are dug 5 to 40 feet deep into permafrost, are the traditional method for chilling and storing subsistence game. They are logistically the only option available for remote hunters. For some ice cellar users, changes to the permafrost could put a year's food supply in jeopardy.

UAF's Geographic Information Network of Alaska has partnered with an Arctic Slope Regional Corp. subsidiary to create prototypes of computers that can monitor temperatures in ice cellars. Two were installed in spring 2018, with refinements to follow.

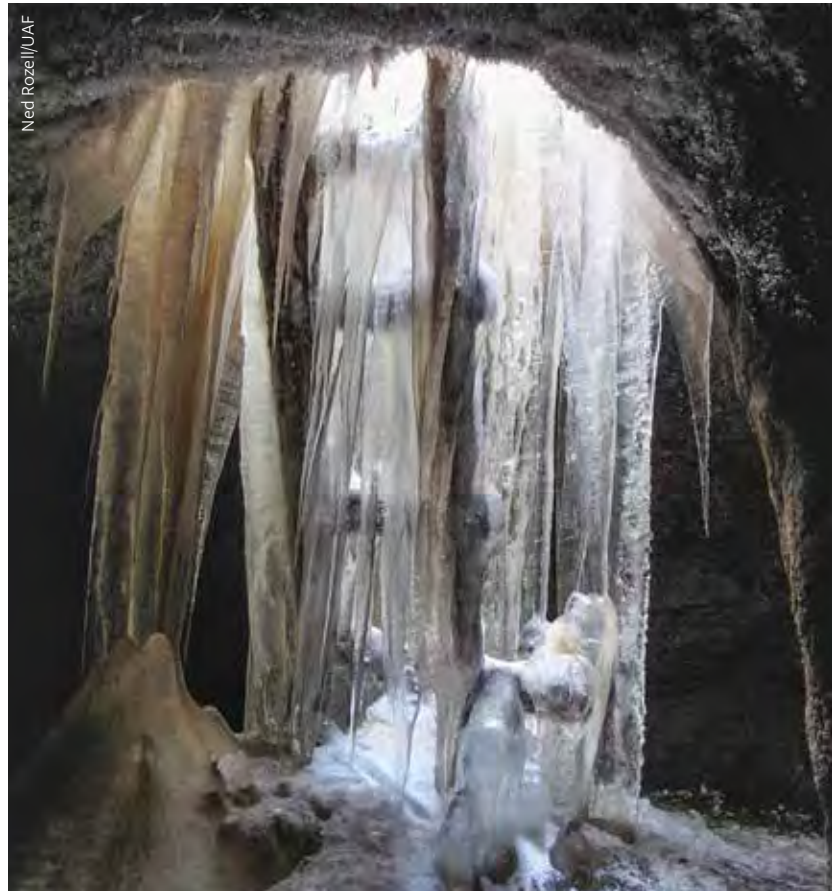
The cellar monitors begin with an inexpensive, single-board computer called a Raspberry Pi. Highly customizable, the Raspberry Pi has allowed UAF students Ianjon Brower and Samuel George to create prototypes equipped for the changing Arctic. The prototypes incorporate user-friendly, live-time graphs that display outputs from various environmental sensors, including those designed

to measure humidity, temperature and air pressure.

"We want the ice cellar owners to know what is happening in their ice cellar," said Vanessa Raymond '16, principal investigator for the project, "and the prototype we design

for them is customized depending on their access to the internet and what kind of power source is available."

Read more at <http://bit.ly/uaf22063>.





‘Patches’ published, presented with prizes

A book about a Weddell seal living in Antarctica, co-written by a UAF doctoral student and published by the University of Alaska Press, has received national recognition.

“A Seal Named Patches,” published in November 2017, received a starred review from School Library Journal and the 2017 DeBary Children’s Science Book Award for intermediate readers.

Roxanne Beltran, a UAF doctoral student, and Patrick Robinson, the University of California, Santa Cruz’s Año Nuevo Island Reserve director, wrote the book.

The couple has visited Antarctica seven times together.

Read more at <http://bit.ly/uaf022862>.



Photos courtesy of UA Press

NEW BUILDING A FEAT OF ENGINEERING

By Jeff Richardson

The new engineering building at UAF is a gleaming tower of steel and glass, but there's plenty of substance behind its prominent façade.

The inner workings of the Engineering Learning and Innovation Facility represent a decade of dreams. The \$121.6 million building not only offers cutting-edge labs and classroom facilities, but also provides much-needed room for an engineering program that has doubled its enrollment since the mid-2000s.

"It's the engineering building for the next 50 years," said Doug Goering '84, dean emeritus of the College of Engineering and Mines.

ELIF occupies a space that was previously a parking lot between the Duckering and Bunnell buildings. The location isn't an accident — joining the buildings that house the UAF engineering and business programs provides a literal bridge between two disciplines that often work together.

That theme of inclusion is repeated throughout the 119,000-square-foot building. The Usibelli Coal Mine Student Atrium,

a glass-walled collection of labs and student gathering spaces, is designed to promote interaction between various work groups. A large all-gender bathroom on the third floor features rows of fully private individual stalls.

The building also offers a design contrast to Duckering, which has been home to UAF engineering classes since it was built in 1964. The steel, glass and concrete themes at ELIF offer a more contemporary look.

"It definitely feels like a planned building," said Dylan Baffrey '18, who graduated in May with a civil engineering degree. "Now they have light, they have a color scheme — it's more aesthetically pleasing."

High-tech features include the ConocoPhillips Alaska High Bay Structural Testing Lab, which has a beefy 4-foot-thick reinforced "strong floor" and the ability to test massive

girders or simulate how bridges will stand up to earthquakes. Students can project their work onto screens throughout the building from their laptops or smartphones, and the BP Design Theater allows complex multimedia presentations at the new home of the Alaska Center for Energy and Power.

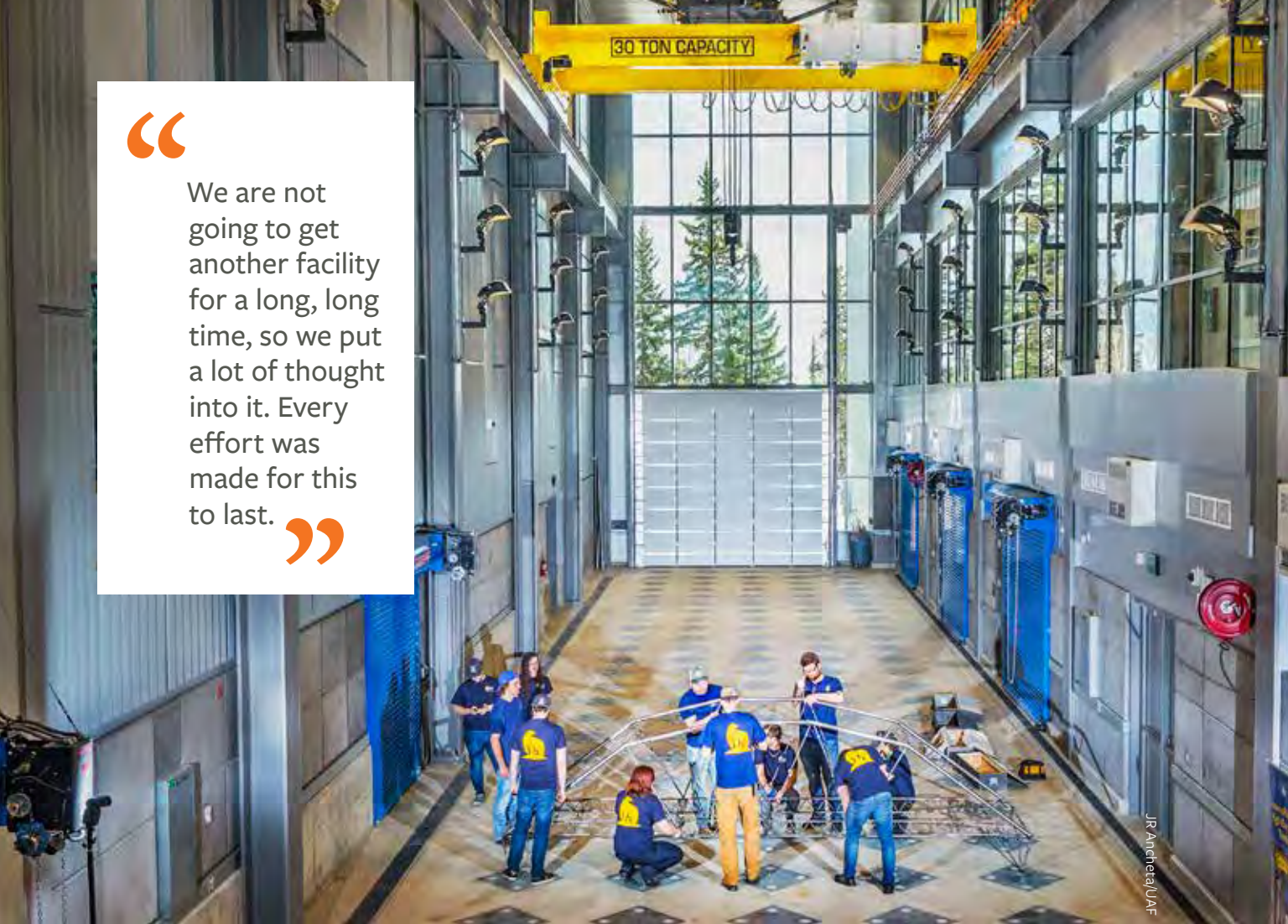


Students from Professor Margaret Darrow's geological engineering class identify rocks in April 2018 at the new Engineering Learning and Innovation Facility.

“

We are not going to get another facility for a long, long time, so we put a lot of thought into it. Every effort was made for this to last.

”



JR Anchetta/UAF

Heni Barnes '18, who had a summer 2017 internship at the NASA Jet Propulsion Laboratory in California, said the spacious study areas and modern equipment at ELIF remind her of the facilities she used there.

“I’m super impressed,” said Barnes, who earned her geological engineering degree in May. “You know it’s a nice building when it lives up to those standards.”

ELIF was designed to be an adaptable 21st-century building, Goering said. Open flexible laboratory bays can be reconfigured easily with electrical power and other utilities supplied from “plug and play” ceiling connections. ELIF is also designed so efficiently that the building can be warmed almost

entirely with low-grade waste heat from the nearby UAF power plant, requiring little additional cost to the campus.

Construction of ELIF began in 2013 but stalled for a few years due to tight budgets. With help from private donors, legislative funding and a revenue bond, the university by 2016 had enough money to finish the job.

The first classes in the building were held in January 2018. Now that it’s complete, Goering said, it will be a bright spot at UAF for many years to come.

“We are not going to get another facility for a long, long time, so we put a lot of thought into it,” he said. “Every effort was made for this to last.”



JR Anchetta/UAF

Top: Members of the 2018 Steel Bridge Team assemble their bridge in the ConocoPhillips High Bay Structural Testing Lab in April 2018.
Bottom: A modern lab classroom awaits students in ELIF.

MUSIC

From Russia with

By Jeff Richardson



JR Ancheta/UAF

Even by Alaska's unconventional standards, UAF piano professor Eduard Zilberkant took a remarkable journey to the Last Frontier.

Zilberkant's father was a classically trained musician who played jazz in their hometown of Volgograd in the Soviet Union. His mother toured in the 1950s as a Russian pop singer. A gifted young musician, Zilberkant started playing piano as a 3-year-old, then began formal music school at age 6. Just a year later, Zilberkant performed a recital on live television.

But as a Jewish family under Soviet rule, the Zilberkants' successes came amid a backdrop of discrimination. So when his father heard a Voice of America radio broadcast in the early 1970s about a program that allowed Russian Jews to emigrate to Israel, they began making plans to move abroad.

No Jewish family from their hometown of Volgograd, formerly Stalingrad, had attempted to leave before. Zilberkant said his parents knew their two sons had a brighter future outside the Soviet Union.

“They wanted freedom for my brother and me,” he said. “Persecution for Jewish people in Russia was very great, even for musicians. My parents wanted something better for us.”

Their final year in Volgograd was full of bureaucracy and fear. He said his family received death threats. A car jumped out of traffic to try to run him down after they made their plans known.

“People thought we betrayed the country that gave us everything,” Zilberkant said.

After a year of paperwork and waiting, the Zilberkants departed for Vienna, Austria, where they asked if they could immigrate to the United States instead of Israel. It brought an unexpected response: “You’re free people. You’re free to go where you want now.”

After his family moved to Atlanta, his education included performances with the Atlanta Symphony Orchestra, music degrees at the University of Michigan and Bowling Green State University,

and a Fulbright Scholarship in Germany. After receiving a doctorate from Temple University, Zilberkant began looking for a college teaching job. He and his wife, Anna, decided, almost on a whim, to begin his career at UAF.

He found himself in a department and community filled with elite talent. Alaska’s exotic appeal also has helped him bring world-class artists to Fairbanks.

Since moving to Fairbanks in 1997, Zilberkant has taught piano, toured internationally and become conductor of the Fairbanks Symphony Orchestra. He earned UAF’s prestigious president’s professor title in 2006.

“It was kind of an adventure, and we didn’t know how long we’d be here,” Zilberkant said. “Twenty years later, I’m the elder statesman.”

Zilberkant brought the Alaska International Piano-e-Competition to UAF in 2014, allowing elite young musicians to perform for a global audience on an internet-connected piano at Davis Concert Hall.

“
People thought
we betrayed
the country
that gave us
everything.”

UAF hosted the prestigious event for a second time this May.

Todd Sherman ’79, dean of UAF’s College of Liberal Arts, said Zilberkant’s outstanding reputation has helped define both the Music Department and the Fairbanks Symphony Orchestra during his long tenure.

“He has high expectations, and he gets people to perform superbly — he sets high goals and they meet them,” Sherman said. “He’s a very strong and powerful force here in the arts.”

►
Eduard Zilberkant conducts the Orchestra of Teatro di San Carlo, in Naples, Italy, in May 2017.



Courtesy of Eduard Zilberkant

S p o

o k

By Sam Bishop

When Lori Polasek began visiting Alaska beaches covered with thousands of Pacific walrus, she marveled at the sound.

She'd already made similar visits to rookeries populated by another marine mammal species — Steller sea lions, which roar constantly.

“Walrus, it’s quiet,” Polasek said. “You can hear the clacking of their tusks — [otherwise] it’s a silent experience.”

Polasek, a former UAF research faculty member, collected millions of photographs documenting Alaska’s walrus haulouts from 2012-2015. She hoped the images might reveal why these silent, vigilant animals occasionally go on a rampage, stampeding into the water and trampling smaller animals in the herds.

Her photographs, taken once per minute by time-lapse cameras, documented not only how easily spooked walrus are but also their reluctance to return to a beach after being scared off. The data

from the photos could help inform management of both walrus and humans as melting sea ice changes the way the two species meet.

Polasek now participates in that management as the Alaska Department of Fish and Game’s marine mammal program coordinator in Juneau. But a decade ago, she was a scientist at UAF’s College of Fisheries and Ocean Sciences, on contract with the Alaska SeaLife Center in Seward.

While there, she was called to help investigate the aftermath of a shocking walrus stampede that occurred at Icy Cape on Alaska’s northwest coast in summer 2009.

Before the stampede, National Oceanic and Atmospheric Administration observers flying over the herd had counted about 3,000 walrus on the beach. Afterward, they counted 300 carcasses. The cause seemed clear but needed to be confirmed, especially because a mysterious disease had also been killing large numbers of seals in the area.

Courtesy of Lori Polasek



Walrus lounge on a beach near a time-lapse camera at Point Lay on Alaska’s northwestern coast in September 2015. Former UAF research faculty member Lori Polasek used such cameras to study disturbances that cause walrus to flee their haulouts.







Lori Polasek stands next to a time-lapse camera above a walrus haulout on Round Island in Bristol Bay. Polasek installed cameras at several such haulouts in Alaska where bluffs allow a good view of walruses' favorite beaches.

Delayed by bad weather, Polasek and other researchers didn't reach the site for a week.

"By the time we got there, there were just over 100 carcasses left on the beach. With storm and wave action, they get carried out," she said.

The cause of death was clear — the walruses had been trampled, she said.

Stampede deaths in walrus herds have been reported for decades, in both Russia and Alaska. But the stampedes in northwestern Alaska were seen as a potential threat to the entire population because walruses have recently gathered there in vast, unprecedented herds, Polasek said.

"If you're looking at that [Icy Cape event], you're thinking 10 percent of their group, in a stampede event, could be lost," Polasek said. "This sparked a concern of OK, gosh, we've got a problem here. We need to monitor what causes a disturbance event so we could, hopefully, prevent one from occurring."

Ice is nice

Male and female walruses breed in January and February along the southern edge of the annual ice pack that builds in the Bering Sea. As the ice retreats northward in spring, bull walruses swim south to beaches in Bristol Bay and on Russia's eastern coast. Cows and the previous year's calves follow the ice edge as it moves north. Cows then birth and nurse new calves on the ice.

Cows and calves use ice as a diving platform from which they can reach clams and other prey on the sea bottom. They feed in the shallow water — less than 250 feet deep — above the continental

shelf throughout the Bering and Chukchi seas.

"In an ideal world, females when they're with their calves should be floating on a nice sheet of ice," Polasek said. They can nurse, rest and escape from polar bears while ice carries them across the food-rich sea bottom.

Historically, most females and calves in the eastern Chukchi Sea stayed on the broken ice all summer, although western Chukchi walruses have traditionally hauled out in large numbers in Russia. The eastern walruses would only briefly come to Alaska shores in the fall as the ocean froze and they migrated southward.

Since 2007, though, female and calf walruses summering in the eastern Chukchi Sea have hauled out on northwest Alaska's beaches in much larger herds and at much earlier dates.

The walruses have come ashore because the ice by midsummer in most years no longer lies above the shallow waters of the continental shelf, Polasek said. When the ice edge has reached the deep Arctic Ocean during recent summers, the walruses have headed back for Alaska's northwestern coast. They can swim for about a week before they need to rest.

The huge haulouts haven't occurred every year, but summer 2017 provided the most recent dramatic example.

"Walruses came to shore in early August near Point Lay and left in mid-October for the southward migration," said Jim MacCracken, a supervisory wildlife biologist with the U.S. Fish and Wildlife Service in Anchorage, in an email earlier this year. "There were about

2012-06-27 16:57:00



The photograph above shows a walrus herd resting on the beach at Cape Seniavin in Bristol Bay on June 27, 2012, at 4:57 p.m. The photograph on the facing page, taken by a time-lapse camera two minutes later, documents the walrus leaving the beach when a boat approaches.

40,000 to 50,000 walrus at the peak.”

Population threat?

How this new pattern might affect the walrus population isn't yet clear, according to a May 2017 assessment written by MacCracken and others at the agency in response to a request that the federal government declare the Pacific walrus an endangered or threatened species.

Using that assessment, the agency decided on Oct. 4, 2017, not to list Pacific walrus under the federal Endangered Species Act.

The assessment estimated the Pacific walrus population was 283,000 in 2014. The population is

stable now, the assessment said, but likely would start declining at an unknown rate. The lack of sea ice is a major factor behind that forecast.

“The increased use of coastal haulouts by Pacific walrus through time increases the probability of disturbance-related mortality events and will also likely result in increased energy expenditure of Pacific walrus to access preferred foraging areas,” the assessment said.

Finding the cause

Back in 2009, after the first few massive haulouts in northwestern Alaska, it seemed that trampling deaths could be a real threat to the walrus population, Polasek said.



The first step was to identify what triggered the stampedes, Polasek said.

“There were lots of polar bear tracks on the beach, but it really could have been anything,” she said of her first visit to Icy Cape in 2009.

Polasek decided to try placing time-lapse cameras at haulouts. However, no one was sure where they would appear on the northwestern coast.

In contrast, bull walrus haulouts in Bristol Bay are used year after year at beaches below high bluffs. “So you can take pictures from the bluff,” Polasek said.

She and fellow researchers installed the cameras in May 2011 before the bull walrus hauled

out in Bristol Bay. The U.S. Fish and Wildlife Service, the Alaska Department of Fish and Game, the Alaska SeaLife Center and several villages helped with the project. The National Fish and Wildlife Foundation and the SeaWorld Busch Gardens Conservation Fund paid for the work.

The first year was a disaster. “All of the cameras failed in the first 48 hours,” Polasek said.

In 2012, researchers upgraded to Reconyx Hyperfire 800 cameras, which worked fabulously, Polasek said. They set up cameras in the major Bristol Bay haulouts at Cape Seniavin, Cape Peirce, Hagemeister Island and Round Island.

“You can hear the clacking of their tusks — [otherwise] it’s a silent experience.”

“We take photos every minute during daylight hours,” she said. “We get over 1 million pictures per season.”

In later seasons, the researchers added acoustic monitors so they could match sounds with disturbances recorded on the camera images. They also added cameras above expected haulout points at Point Lay and Cape Lisburne on Alaska’s northwest coast.

They still had a few setbacks. A bear knocked one camera down a bluff into the surf. “The lens became beach glass,” Polasek said.

“At one site, we had people steal cameras,” she added.

They still ended up with so many photos and recordings that analyzing and matching them has proceeded very slowly.

“I’d taken on a graduate student, and he worked with me through his first year, and then he said, ‘Honestly, I can’t look at another picture,’” Polasek said.

Since then, a team of staff, interns and volunteers has reviewed and documented walruses’ presence, abundance counts and disturbance events from the images.

A crow’s call

From somewhere above a quiet beach full of bull walruses in Bristol Bay, a single crow called.

Polasek’s nearby acoustic recorder captured the call. A camera captured simultaneous images of the walruses.

Moments after the crow call, the massive bulls raised their heads and lumbered toward the water.

The incident illustrated to Polasek just how sensitive walruses can be, an impression reinforced by the millions of photographs she has viewed.

At Bristol Bay’s Cape Seniavin in 2013, cameras and acoustic monitors allowed Polasek to identify the cause in 48 percent of the 160 observed walrus disturbances. Twenty-nine percent were planes, 10 percent were boats, 6 percent were wildlife and 3 percent were humans on the beach.

The photographs also have shown that walruses react to both single and cumulative events, Polasek said. They don’t seem to get used to the disturbances.

An encounter might start with a person walking on the beach, she said.

“Walruses will lift their heads, and maybe a few will head for the water, but if the person stops or even heads back away from them, then the result is just a small disturbance, a couple animals head to the water,” she said.

Such lesser events seem to build up sensitivity in the walruses, the photographs revealed.

For example, she said, “the boat arrives, a few animals leave and they don’t come back right away. A plane flies over. The sound flushes a few more animals. The plane lands, flushes a few more animals. A person [from the plane] walks down the beach, flushes most of the rest of the herd. The next plane comes, [all the walruses] leave,” Polasek said. “So you have this sort of compounding effect.”

Abandoned beaches

A beach-clearing event is a big deal for walruses, Polasek said.

“A sea lion, you can flush them off the beach, move on. They’ll get back out sometimes within minutes,” she said.

Walruses do not, the photographs confirmed.



“Once the beach has been cleared, it can take days to weeks before walrus haul back out again,” she said.

That’s at least in part because walrus are extremely wary of a walrus-free beach.

“They will look to make sure there are no predators or anything else there,” she said. “Once one brave walrus soul gets on the beach, then whoosh, they’ll all appear.”

(Curiously, that one brave soul on the beach doesn’t have to be alive. A carcass will do. “It’s virtually like seeding the beach,” Polasek said.)

Individual people aren’t likely to notice the cumulative effects of their visits, Polasek noted.

“We were absolutely shocked at the frequency and impact of humans,” she said. “We have a photograph of one gentleman who just completely walks through

the middle — and I’m surprised he doesn’t get injured himself — walks through the middle of the herd and just peels the herd open. All of them leave.”

Encouraging results

Polasek and the USFWS assessment both noted that walrus in Alaska’s northwest coast haulouts are at greater risk from stampedes than those in Bristol Bay’s haulouts.

“The smaller size of calves and juveniles makes them more susceptible to trampling injuries and mortalities,” the agency said.

However, Polasek’s photos and agency biologists have reported unexpectedly encouraging news. Deaths from stampedes have been much lower than expected a decade ago.

That’s in large part because communities on the North Slope have taken steps to keep people away from the large haulouts, she said.

Lori Polasek visits a beach in December 2017 near Juneau, where she now works as marine mammal program coordinator for the Alaska Department of Fish and Game.



The Eskimo Walrus Commission, which represents North Slope communities, passed a resolution in 2008 asking hunters to avoid haulouts. (Under the federal Marine Mammal Protection Act of 1972, walrus can be hunted only by Alaska Native people.)

Point Lay, which sits just a few miles from the largest recent haulout site, has followed that policy, said Leo Ferreira, the former tribal council president. He spoke during a 2015 news briefing with the U.S. Fish and Wildlife Service.

“When it’s become a haulout and they’re on the beach, we request to our Native people that they not go over and hunt them,” Ferreira said.

Nobody wants to hunt on the beach anyway, he said.

“We’d like to get our walrus on the ice, not on the beach,” he said. Beach sand and rocks can contaminate the meat during butchering.

As an unfortunate result, no one got walrus in summer 2015, he said. That meant a lack of good food in the village.

“Most of us are on welfare, so we all depend on our food from our ocean. That’s our garden,” Ferreira said.

In fact, the missing ice is one reason the combined annual walrus harvest in Russia and the U.S. now regularly drops below 5,000, down from a high of 16,000 in 1984, the

USFWS reported. In 2014, fewer than 1,500 were taken in the U.S.

Point Lay also discourages tourists from coming to view the walrus. The village’s Alaska Native corporation owns about 90,000 acres in the area. “The haulout near Point Lay generally occurs on village corporation lands, and they require an access permit,” USFWS biologist MacCracken noted in an email.

The agency also recommends that pilots and boats stay well away from haulouts. The Federal Aviation Administration has put notices on its airspace maps. However, neither agency has



A large walrus herd rests at Point Lay, on Alaska’s northwestern coast, on Sept. 18, 2015. Nearby village residents have discouraged hunting and visitation at such haulouts, which has reduced the number of stampedes and associated trampling deaths to levels below what biologists had expected when the large haulouts began to appear about a decade ago.



authority to close the airspace to protect walrus, MacCracken said.

Haulout fallout

The USFWS began assessing the Pacific walrus in 2008 in response to a petition asking for an endangered or threatened listing. In 2011, it announced that the Pacific walrus was “warranted for listing, but precluded by higher priority actions.” An environmental group sued, and the administration agreed to make a final decision on listing by 2017.

In October 2017, when the administration announced it would not declare the walrus endangered or threatened, it gave three reasons

for reversing the 2011 recommendation. Subsistence hunting harvests were at record lows, it said, and a new population estimate was much higher than the previous one.

In addition, “local protection of Pacific walrus coastal haulouts in recent years has been effective at reducing disturbance and associated trampling and mortality events,” the agency said.

Photographs from the Point Lay and Cape Lisburne haulouts confirmed that result, Polasek said.

“The disturbances have been much less frequent than would have been anticipated,” Polasek said. “Point Lay is a champion

protector of the walrus hauled out there.”

Polasek hopes to finish a few papers on her photographic data this year.

“It’s a wonderfully data-rich project, but it’s an extremely time-consuming and monotonous project to go through all these photos,” she said. “Once you’re through your first 500,000 photos, it loses its luster.”

Polasek’s photography project ended in 2015. But her cameras were still taking pictures of walrus in summer 2017 — the USFWS now uses them for its own monitoring. 📷





Dale Pomraning: Academic tool

(in the best possible way)



Dale Pomraning walks past a track-outfitted truck at Antarctica's Windless Bight, where an infrasound detection site operated by UAF helps monitor compliance with the international ban on nuclear explosions.

By LJ Evans

Dale Pomraning carries enough tools to repair most anything.

Upon request, he starts pulling them from pockets in his khaki shirt, game vest and sturdy canvas pants, as well as from a small black pouch attached to his belt. He places on the table a utility knife, wire cutters, tiny folding tweezers, a six-way screwdriver set, two tape measures, a 5-inch vice grip, a red flashlight, a spare flashlight, several bunches of keys, a small pocket knife, a medium-size pocket knife, and two Gerber multitools.

By the time his pockets are empty, he's pulled out 53 items, including adjustable wrenches, an optical loupe, a small rainproof notebook, carbide scribes for writing on metal and a small mirror on a long handle for looking underneath things.

Pomraning's fascination with tools started early.

As a toddler, he didn't sleep with stuffed toys. "I would take wrenches to bed with me, and light bulbs and electrical fittings," he said. "It was always mechanical things."

Small wonder that Pomraning, 54, grew up to be a machinist and a mechanic with such outstanding skills that scientists write him into research grants and acknowledge his contributions in scientific journals.

As lead machinist in UAF's Geophysical Institute Machine Shop, Pomraning is an internationally sought-after expert on a number of techniques. His specialties include using high-pressure hot water to drill holes in glaciers or ice sheets. He has been part of 12 scientific expeditions to Antarctica.

"There are probably hundreds of stories of Dale coming through in a pinch," said Martin Truffer '99, UAF physics professor and a member of the GI's Snow, Ice and Permafrost research group.



An electrical circuit tester.

A pocketknife and three multitools, each with its own collection of useful devices.

An infrared attachment for a cellphone camera.

A small round mirror, which in this case is reflecting an upside-down image of UAF photographer JR Ancheta.

Once, when Truffer’s research team was working on Taku Glacier near Juneau, a student planned to collect sediments from under the glacier through a hole already drilled for the main mission. The student built equipment in Fairbanks to collect the samples, but it didn’t work at the site.

“Dale worked on the problem for half a day, and then we had sediment samples,” Truffer said. By cutting various pieces out of scrap material that the team happened to have on the glacier, Pomraning put together a device that worked.

“He’s just a really exceptional mechanic,” Truffer said.

Always a mechanic

Pomraning grew up on a farm near Anoka, Minnesota, just north of Minneapolis.

“We fixed everything on the farm ourselves,” Pomraning said. “You can’t afford to take it to pay someone to get it fixed, nor the lost time.”

When he was about 10 years old, he accompanied his dad on a visit to a machine shop in town. He did so well in advanced high school shop classes that he could skip a

quarter of the requirements for a two-year tech machinist program. Ten years later, he was working at that same machine shop in Anoka.

After a few years, he got itchy. “I was a young guy, and I enjoyed my job there, but I was a little bit adventuresome,” Pomraning said.

In 1989, he was hired as the winter-over machinist at McMurdo Station on Ross Island, Antarctica. Workers who spend the winter in Antarctica are there for the duration because they can’t leave. All aircraft traffic to and from Antarctica is discontinued from



A spare cellphone.

Tools for writing, including two metal scribes, the third and sixth items from bottom.

A crush-proof case for one of three pairs of extra glasses.

February through August, the winter season, because of severe storms and extreme conditions. The sun goes down in May and comes up in September, and in the depths of winter temperatures can be colder than 100 degrees below zero Fahrenheit. Crew members must be prepared to deal with anything that comes up, using their wits and whatever they have on hand.

The next year, Pomraning drove up the Alaska Highway in February to help a buddy in Fairbanks. A UAF group working on a National Science Foundation contract to

support research in Antarctica heard about Pomraning. They wanted to know more about a mechanic and machinist who would winter over at McMurdo and then do it again in Fairbanks. They hired him for a crew they were assembling to go to the South Pole.

His task was to design and build equipment to drill 2-foot-wide holes 1.25 miles down into the ice at the Amundsen-Scott South Pole Station. These holes were bigger and deeper than had ever been drilled in ice before. The scientists wanted to create a specialized telescope by lowering sensors into

The contents of Dale Pomraning's pockets cover a table at the Geophysical Institute Machine Shop.

the ice that could detect neutrinos — tiny, high-energy particles hurtling through space — that had passed through the Earth from the Northern Hemisphere and were exiting through the Antarctic ice.

“I think they were impressed that I knew what a neutrino was,” Pomraning said.

That expedition was just the first of many interesting UAF and GI science projects that have called on Pomraning’s expertise.

Truffer, the physics professor, has worked with Pomraning for 20 years. They first met on Black Rapids Glacier off the Richardson Highway south of Fairbanks, working on Truffer’s Ph.D. thesis research.

“We drilled all the way through the glacier there,” to study how ice moves under the glacier, Truffer said. “It’s really hard to get these measurements because it’s so hard to look.” Pomraning designed and operated the equipment necessary for the scientists to get their data.

Truffer and Pomraning’s work on a multiyear study of West Antarctica’s Pine Island Glacier was reported last year in a major paper published in the journal *Nature*. Truffer was a co-author; the other scientists were from Britain, Denmark, Germany

and Switzerland as well as the Lawrence Livermore National Laboratory and NASA. In the paper’s acknowledgements, the first thank-you was to Dale Pomraning for his help with designing and manning the hot-water drill equipment.

Working at the shop

“I have met people in this profession almost like Dale, but never just like Dale,” said Greg Shipman, manager of the GI’s Machine Shop since 2002. “I won’t tell him this, because he’ll get a swelled head, but I would hate it if Dale wasn’t here.”

Having the capabilities of professional machinists available to fabricate specialized equipment for scientific studies has been a high priority at the Geophysical Institute from the very beginning. A report from first GI Director Stuart Seaton in 1949 said that as of July 1, 1950, “there will be available ... an instrument shop with machine tools” in the GI’s first home, the Chapman Building.

Shipman explained that the Machine Shop is a service center for scientists, researchers and grad students at the GI. Their main function is to fabricate devices, machines or equipment that researchers cannot buy off the

shelf. The three people who work in the Machine Shop must be not only machinists, but also welders, carpenters, repairmen, mechanical designers and draftsmen.

“Someone comes in here with a concept or an idea, and we have to turn it into reality,” Shipman said. “I never know what’s walking through that door.”

They can build devices accurate to 1/1000 of an inch.

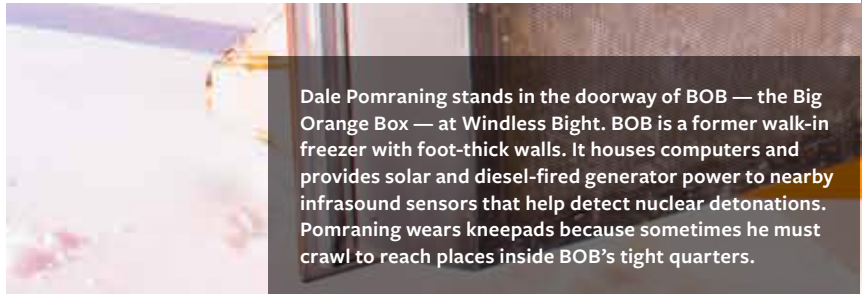
“We have worked on things that the accuracy level is so high that if you change the temperature in the room, you change the dimensions,” Shipman said.

After years of working as a team member on contract with UAF for various projects, Pomraning was hired full-time to work in the GI Machine Shop in 1998 by Larry Kozycki, legendary shop manager from 1982 until his death in 2001.

“He was a serious man,” Pomraning said of Kozycki. “It had to be perfect. When Larry spoke, people stopped.”

Before being hired full-time at the GI, Pomraning brought in projects from the UAF contract jobs he worked on. He had designed a big winch, one of four, and he brought the blueprints over for Kozycki.

“He flipped that blueprint back at me and said, ‘Dale, you’re missing a



Dale Pomraning stands in the doorway of BOB — the Big Orange Box — at Windless Bight. BOB is a former walk-in freezer with foot-thick walls. It houses computers and provides solar and diesel-fired generator power to nearby infrasound sensors that help detect nuclear detonations. Pomraning wears kneepads because sometimes he must crawl to reach places inside BOB’s tight quarters.



couple dimensions on this blueprint. Is that the best you high-paid engineers can do?” Pomraning recalled. “And I said ‘Larry, I’m not an engineer, I’m just a machinist.’ That made a difference, because he knew that he had to get up pretty early to keep up with me, and I felt the same way about him.”

In winter 2017-2018, Pomraning traveled to Antarctica with Jay Helmericks '98, '01, of the GI's infrasound unit, to maintain sensors that monitor for nuclear explosions. Researchers at the GI in the 1960s pioneered the study of infrasound — low-frequency acoustic waves of less than 20 hertz (cycles per second) — generated by the aurora. The Comprehensive Nuclear Test Ban Treaty Organization also uses infrasound to detect nuclear detonations. Today, the Wilson Alaska Technical Center at the GI manages a number of the treaty organization's infrasound arrays around the world, including one at Windless Bight near McMurdo Station. The infrasound unit at the GI also supports basic and applied research on acoustic signal processing, volcanic eruptions and auroral infrasound.

This year, maintenance of the Windless Bight infrasound facility

“

I think they were impressed that I knew what a neutrino was.

”

transferred from an outside contractor to the GI, with Pomraning as lead mechanic.

“Dale’s our ace in the hole,” Helmericks said. Pomraning is familiar with the specific diesel engines used to power the infrasound facility, which has to run on its own through the Antarctic winter.

“Dale is great at coming up with creative solutions to get the job done,” Helmericks said. Sometimes that entails scrounging through trash bins at McMurdo to find bits that can be cobbled together to solve the problem.

“I know how all the diesel engine parts fit together,” Pomraning said. “If there’s a problem, then I’m there to fix it.” He noted that the South Pole and McMurdo stations have excellent machine shops that he can use to build any parts or tools needed.

“When I’m in the field, I already have a vision of what’s inside the machine before I take it apart,” Pomraning said. That knowledge gives him the ability to disassemble it without damage and reassemble it to be functional. That’s his superpower.

“When my father was fixing a tractor or some machinery, I was out there watching him do it, and then I would take his tools and I would wander around carrying them. So if he was missing some tools he’d go find me.”

“People ask me ‘How long have you been a mechanic, Dale?’ And I answer, ‘All my life!’”

Machinist Dale Pomraning searches for a bolt in the parts aisle of the Geophysical Institute Machine Shop.



What's in your pockets?



Few of us load our pockets with the vast array of items that machinist Dale Pomraning does (see tool spread on pages 26-27). But surely some of you carry some interesting items.

We want to know! Send an email to aurora.magazine@alaska.edu detailing "what's in your pockets," along with a photo of yourself (with or without the items from your pockets). For fun, we'll print a selection in our next issue.





Wild medicine

Vet partnership has Alaska flavor

By Jeff Richardson

Just a few hours into his summer job at UAF, Chris Clement '15 came to a surprising realization: Caribou know how to box.

The veterinary medicine student made the discovery as he and another student were trying to do an exam on a newborn calf at UAF's Large Animal Research Station. Mama caribou wasn't happy, and showed her displeasure by popping up on her hind legs and swinging away.

"I'm thinking I'm going to get punched in the face by a caribou," Clement said. "I was like, 'Oh, this won't be boring.'"

Clement managed to avoid the bizarre beatdown. But three years after he and nine classmates joined the inaugural class of veterinary students at UAF, he's happy to report that there still haven't been many dull days.

In part, that's what UAF and Colorado State University envisioned when the schools began jointly offering a veterinary degree in 2015. Administrators hoped the combination of CSU's established vet program and the opportunities of the Last Frontier would offer an unprecedented atmosphere for studying animal medicine.

The reality of an Alaska-rooted vet program was underscored early in the first year, when new students got a taste of just how eclectic their field could become. Along with brawling caribou, their patients during the first year included a menagerie of Alaska animals — muskoxen, reindeer and sled dogs.

"It's not your normal run-of-the-mill vet school," said Dr. Arleigh Reynolds, a champion dog musher and associate dean of the UAF Department of Veterinary Medicine. "It has a few Alaska twists."

UAF veterinary medicine student Jayne Ellis, left, and Aurora Animal Clinic veterinarian Becky Childs check a dog's paws before the Yukon Quest sled dog race in January 2018 in Fairbanks. UAF students volunteered to help with medical checkups for the dogs before the 1,000-mile race began.

The new program is still a year away from producing its first graduates, but those twists are providing an exciting new path for Alaskans seeking a veterinary degree.

Students spend their first two years in Fairbanks, where they focus largely on classroom work. The final two years shift to Fort Collins, Colorado, where students work in a variety of clinical settings provided by the CSU vet program. Along the way, they have a chance to work with dog teams, study reindeer, treat commercial livestock, examine house pets and more.

“We are definitely seeing two different worlds of veterinary medicine,” said Liz Millman, who just completed her third year as a student in the program.

A chance for Alaskans

The partnership grew out of a harsh reality for aspiring veterinarians in Alaska — it was nearly impossible for them to claim an out-of-state spot in a Lower 48 vet school.

“Before this program was conceived, our best advice was for them to leave and establish residency in a state with a vet program and go to school there,” Reynolds said.

That advice was impractical for many Alaskans. Nor did it help solve the state’s vet shortage. After spending years out of state, graduates rarely returned to Alaska.

The UAF-CSU partnership was born. It allows UAF students to work with one of the top veterinary schools in the U.S. and lets CSU tap into a unique environment.

The arrangement also allows the University of Alaska to avoid the staggering costs of building its

“

I always wanted to be a vet, but, without a vet school in Alaska, I really wasn’t sure how it was going to happen.”

”



UAF veterinary medicine student Jed Harding checks a sled dog’s panniculus reflex, part of a neurologic examination that can determine if a dog has back pain or a spinal cord lesion. UAF students helped examine sled dogs before the start of the 2018 Yukon Quest sled dog race.

own in-state program. UAF spends about \$1.5 million annually to support the “two-plus-two” partnership, compared to a prohibitive \$150 million price tag to offer a full veterinary program, Reynolds said.

UAF’s approach quickly attracted community support. Friends of Dr. Val Stuve, a Alaska veterinarian since 1969, created a scholarship in his name for students enrolled in the UAF/CSU program.

Millman joined the program during its first year, moving to Fairbanks after working as a handler for famed Iditarod musher DeeDee Jonrowe. She and others, like Billyann Monrean ’16 from Tanana, said the new program provided an opportunity to pursue their dreams.

“I always wanted to be a vet, but, without a vet school in Alaska, I really wasn’t sure how it was going to happen,” Monrean said.

Uncommon classrooms

Not everyone in the program is from Alaska. Claire Squires grew up in Colorado and earned wildlife conservation and natural resources degrees at CSU before moving north two years ago.

She isn’t alone — half of the new vet students at UAF during the last academic year were from the Lower 48.

Squires said she was attracted, in part, by the prospect of an intimate classroom setting. Only 10 students participate in Fairbanks classes — less than one-tenth the size of a typical Lower 48 vet class. It allows students and teachers to form an uncommon bond.

The setting allows more clinical reasoning and in-class discussions,



Veterinary medicine major Chris Clement checks a reindeer's heartbeat during a class outing to UAF's Large Animal Research Station in October 2015.



Claire Squires checks the vital signs of Zari, a juvenile muskox, with classmate Billyann Monrean at UAF's Large Animal Research Station in March 2018.

Reynolds said, and better simulates interactions that veterinary colleagues have in the workplace.

"I think it's one of our greatest strengths, to be honest," he said. "When you have a small group like that, you can do much more innovative ways of teaching and learning."

At UAF, students also are able to conduct weekly necropsies of donated pets and livestock that have died. At the Fort Collins campus, such opportunities are rare enough that students must enter a lottery to participate.

"I think we've been really lucky at UAF to have more of a hands-on component than at CSU," Squires

said. "Because there are so many fewer students, I think we're really able to do a lot more of that."

Heading south to CSU

In fall 2017, the first cohort of students made the shift from Fairbanks to Colorado. Along with it came other challenges — bigger classes, more clinical work and a new environment.

Dr. Melinda Frye, CSU's associate dean for veterinary academic and student affairs, said the response has been encouraging. Administrators have been particularly happy to see that students who started at UAF have had no trouble keeping up with their peers at CSU, she said.

"The process has gone remarkably smoothly," Frye said. "We're already seeing great benefits to the partnership. We observed really a seamless transition both from an adaptability standpoint and an academic standpoint."

The first two years of veterinary studies are heavily weighted toward classroom work and labs, before shifting to more hands-on work during the final two years. In that respect, students at both schools are making the same transitions to hospital settings and field work.

Josh Link, who moved from Pennsylvania to Alaska to join the two-plus-two program, said his biggest adjustment to Colorado life



At far lower right, Dr. Nicole Wyatt, a postdoctoral fellow at Colorado State University's James L. Voss Veterinary Teaching Hospital, monitors the screen while students, from left, Morgan Eaton-Carr, Liz Millman and Valerie Ropiak give pug Chacee an echocardiogram on Feb. 28, 2018.

was reacquainting himself to heavy traffic.

"They've done an exceptional job making sure that we're up to snuff with everybody down here," he said. "The backing between UAF and CSU was really undeniable. They wanted to make it work."

Squires, who plans to become a U.S. Army veterinarian after graduation, said it's exciting being at the forefront of a new, evolving program.

"It's interesting and unique, and I'm excited to see where it goes," Squires said. "It'll be fun to see what it becomes after it's matured for 20 years." ❄️

Students in the UAF vet med program's second cohort gather at Piledriver Kennel in Salcha in March 2017. The students in this group expect to graduate in 2020.



Courtesy of Arleigh Reynolds

CHALK IT UP

to UAF, for starters

Story by Lindsay VanSomeren

Images courtesy of Dave Brenner



Dave Brenner '92 never expected his art to take him all the way from the bottom of the Pacific Ocean to the streets of Dubai. Yet, that's exactly where he's been.

Growing up just outside of Fox, Brenner loved being creative, going on adventures and being outdoors. "I was always running around the woods on my snowmobile or my three-wheeler and my bikes and stuff like that," he said.

After graduating from UAF with bachelor's degrees in fine art and theater in 1992, Brenner decided to hit the Big Apple to "do the starving actor-artist thing out there for a couple of years." That's when Brenner first realized the advantages of his UAF education.

"We were definitely in the upper 10 percent at a lot of the auditions while we were in New York," he said.

Still, empty pockets and the realities of grown-up life set in. He flew back to Fairbanks for an interview with the Daily News-Miner, barely landing in time for the

appointment. The newspaper hired Brenner to design its feature pages. There, he also picked up skills in photography and web design.

Eventually, Brenner made his way back to his alma mater, working in the Journalism Department and at the Alaska Sea Grant program.

"That was kind of the start of the career I'm at in this moment," said Brenner, who now works as creative director for the University of Michigan School for Environmental Sustainability. "It was my first introduction to working with scientists and helping them tell their story."

Through Alaska Sea Grant, Brenner got the opportunity to dive on the Alvin submarine with the first female pilot, Cindy Van Dover, after some creative bargaining with another scientist on the last day of a voyage off central Mexico's Pacific Ocean coast.

"I practically had my own submersible one and a half miles down at the bottom of the ocean floor," Brenner said. "They parked the sub anywhere that I wanted so I



Top: Dave and Shelley Brenner stand arm in arm with a 3D octopus they created for the 2017 street painting festival in Lake Worth, Florida.

Above: Dave Brenner works on the inkwell in the street art piece "Cabinet of Curiosities." Brenner and his wife, Shelley, created the piece during the Dubai Canvas event from March 1-7, 2018, in the United Arab Emirates.



Shelley and Dave Brenner stand in their street art creation at the 2018 Dubai Canvas, an annual 3D art festival held in the United Arab Emirates' largest city. The image from their feet forward lies on the street. Behind them is a matching scene on an upright panel. For a walk-around video, go to <http://apigmentofyourimagination.net> and click on the image.

could get these photographs, so that I could sit and do sketches at these hydrothermal vents — all the flora, the fauna around the vents. It was just a spectacular experience.”

Brenner eventually moved to a more landlocked state — Michigan — and married his wife, Shelley. They’re now the parents of twins.

In recent years, they have found a new joint passion: street painting.

“We were getting coffee one morning about four years ago, and we saw this crew of people setting up across the street, and they had boxes of pastels,” Brenner said. They decided to investigate and became intrigued.

“The person organizing said, ‘Well, here’s a box of chalk. Why don’t you guys go for it? Do a square. You can’t be in the competition, but have fun, you know?’” Brenner recalled.

Their passion bloomed. The couple began traveling around the country to compete in street painting festivals.

Brenner finds interacting with the crowds particularly fun. “It’s that theater background in me. I just wanted to be an entertainer,” he said.

Recently, their art landed them in Dubai, where they were among 30 artists from around the world invited to create a spectacular 3D design.

It’s been a wild ride, and one that Brenner attributes in part to his Alaska roots.

“I give a lot of credit to my professors at UAF,” he said. “They were amazing. They pushed you hard. They didn’t let you rest on your laurels. They really challenged you to be the best artist that you could be.”

“ I give a lot of credit to my professors at UAF. They were amazing. ”



The Brenners step into a street illusion they created for the 2017 Chelsea Sounds and Sights Festival in Chelsea, Michigan.



Dave Brenner won best in show for this leaping fish created at the 2016 Chelsea Sounds & Sights Festival in Chelsea, Michigan.



In this 10-by-10-foot street painting, Dave Brenner recreated Jan van Eyck's self portrait, "Man in a Red Turban," at the 2016 Chalktoberfest in Marietta, Georgia.



Aliens inhabited the street after the Brenners finished their work at the 2017 Chalk the Block Festival in St. Joseph, Michigan. The piece measured 18 by 27 feet.



Betty Parent visits the San Francisco State University campus in April. Parent, who spent her early years in villages along the Kuskokwim River, helped to create the Department of American Indian Studies at SFSU. She's wearing a scarf made by Dorothy Pender, a Fairbanksan who met Parent while studying at nearby Stanford University in the 1980s.

PERSEVERANCE Parent's PERSEVERANCE PERSEVERANCE

By Sam Bishop

When Dorothy Pender defended her doctoral thesis in electrical engineering at Stanford University in 1991, a somewhat older Alaska Native woman arrived bearing an arrangement of gardenias to mark the occasion.

"Everybody thought she was my mother," Pender recalled.

"Mom" was actually Elizabeth "Betty" Parent '64, whose perseverance and ambition had brought her from a chaotic childhood in a tiny village on Alaska's Kuskokwim River to the halls of renowned academic institutions in the San Francisco region.

"Every presentation I gave, she was there," said Pender, a woman of northwest Alaska Inupiaq ancestry who now lives in Fairbanks. "She was a very strong supporter of people like me."

Parent spent decades mentoring students like Pender while earning her own doctorate and then building the Department of American

Indian Studies at San Francisco State University.

Parent was born in 1941 in Bethel. Her father was Yup'ik from the Kuskokwim village of Ohagamiut. "My mother was from what would probably be a little more Athabascan country [upriver of Sleetmute], but our language was Yup'ik," Parent recalled. "My early linguistics environment was mostly Eskimo up until about a year before I started school."

Those early years were turbulent. Her father drowned in an accident when she was young. The day of the accident, Parent's mother was downriver at the hospital in Bethel having the couple's third child.

Afterward, the children left their mother's care and went to live with Parent's aunt in Crooked Creek. Her aunt was married and worked as the postmaster. All three children had whooping cough when they arrived in the village.

"They didn't have running water or electricity, so it must have been horrendous," Parent said.

The baby died of spinal meningitis in the first winter. The next year, Parent and her younger sister went to Anchorage for medical care. The younger sister had tuberculosis and eventually died in a hospital in Bellingham, Washington, when Parent was 10 years old.

Parent's aunt and uncle divorced. So "she and I and our dog Toby moved to McGrath," a village on the upper Kuskokwim, Parent said.

In McGrath, her aunt, Alice, married Don Harris, who would later be elected to the Legislature and serve as Gov. Jay Hammond's transportation commissioner in the 1970s. Parent didn't stay in McGrath for long. Her aunt and new uncle sent her to Massachusetts, Montana and then Seattle, where she completed high school at the Holy Names Academy.

"It was a cloistered convent," Parent recalled. "They did prepare me for college. It probably made a big difference. I was doing very well there."

In 1959, she enrolled at the University of Alaska in Fairbanks. She applied for a scholarship from the Pioneers of Alaska but was rejected because she was Alaska Native. At the time, she said, “I didn’t even realize what was happening.”

She also had a difficult time in the education department. “My advisor told me that I was never going to graduate,” she remembered. “It was not a welcoming atmosphere.”

After Professor Ivar Skarland ’35 convinced her to major in anthropology, she graduated in 1964.

The year before, she had married fellow student Gene Wescott ’64, who would go on to become a prominent professor and researcher at UAF’s Geophysical Institute.

They had three children — Brian, Liam ’88 and Siobhan.

Parent was drawn into the issues swirling around Alaska Native people. “There was a lot going on then,” she said. “The whole [Alaska Native] land claims thing was like a hand grenade that was thrown in the middle of everything.”

Parent wrote for and served on the board of the Tundra Times, the statewide newspaper started by Howard Rock ’74H* to cover Alaska Native issues. Meanwhile, she worked as the Fairbanks director of Head Start, an early education program. There she discovered that “people with master’s degrees from God knows where were making all the decisions, and unless I got a master’s degree I wasn’t going to be a part of that.”

She successfully applied to a new American Indian program at the Harvard Graduate School of Education. She’d already taken many graduate-level classes at UA, so “next June, by God, I had a master’s degree,” she said.

A Ph.D. became her next goal, so she moved to California to study at Stanford. To make a living, she taught at the University of California-Berkeley and then San Francisco State.

Karen Perdue ’17H*, who grew up in Fairbanks and earned a biology degree from Stanford in 1978, remembered the comfort that Parent offered her during that time. Perdue’s parents were active in Alaska Native issues in Fairbanks, so they knew Parent.



Betty Parent, at about age 6, stands with her aunt Alice by their home in the late 1940s. The cabin also served as the post office for Crooked Creek, a village on the banks of the Kuskokwim River.

“She had hardly any money, and she was a grad student, and she had kids, but she always managed to put together a home-cooked meal and fresh bread,” Perdue recalled.

Parent’s memory of the time was a little different. “I always felt like I was half hysterical,” Parent said with a laugh.

After about a decade of effort, Parent earned a doctorate in 1984. Her dissertation described the experience of Alaska Native students at the Moravian mission school in Bethel. It wasn’t a flattering portrait. The Moravian Church, in a later publication, described her as a “vitriolic, biased anthropologist,” Parent said.

Parent delivered a harsh critique of the educational system’s effort to obliterate Native language and culture. “It was set up to cure us of being Native,” she said.

Perdue, now a UA regent, said Parent’s research put her at the forefront of discussions about how boarding schools affected Alaska Natives.

“I don’t think she’s alone in her views these days, but she may have been the person who put the most science to the subject at the time,” Perdue said.

At San Francisco State, Parent focused on advancing the Department of American Indian Studies. “My idea was to make an academically rigorous department covering all aspects of America’s tribal heritage,” she said.

That effort succeeded, and Parent noted that at least one ranking has put the department among the top 20 in the nation. Though Parent retired in 2000 and received emeritus status, she is now investigating ways to promote adult literacy by expanding the department’s offerings to prison inmates.

“It’s not like I don’t have ideas, it’s just the body that’s getting old,” she said.

Parent also retains her nurturing nature, according to Pender, the Stanford engineering graduate to whom Parent delivered flowers at her thesis defense.

Pender returned to Fairbanks with her Alaska-born husband, John, in the late 1980s and went to work for UAF as a faculty member. In 1997, Alyeska Pipeline Service Co. hired her, and she spent a dozen years with the company. She now does public works engineering for Fort Wainwright.

Parent sometimes stays with Pender when in Alaska, and “now I have a standing invitation to stay at her place” in San Francisco, Pender said.

They also keep in close touch across the 2,000 miles between their homes, even though Parent doesn’t use email. “I get little care packages in the mail — signs from a secondhand store, or a good book to read, or interesting magazines, three or four times a year,” Pender said. “It means a whole lot more when you have a hand-written letter in a box.” ❧



Denali yearbook 1963

Parent and her husband, Gene Wescott, sit for a portrait with their first son, Brian. The photograph appeared in the 1963 UA yearbook, Denali, as part of a feature on young couples living in Walsh Hall, the university’s housing unit for married students. “As the families get to know each other, a close bond is formed between the ‘walshites,’” the yearbook reported.

*H = honorary degree

From the editor — We didn't run class notes in our centennial issue last year, so these notes are from fall 2016 to present. We apologize for any outdated news included here.

1950s

Sylvia Ruscett '57 was named the Counterpart Distinguished Woman of the Year in Grand Haven, Michigan, in summer 2017. The award celebrates a local woman's professional accomplishments, commitment to her community and personal attributes. Sylvia was a teacher and one of the first female principals in the Grand Haven area. Read more at <http://bit.ly/AuroraCN-Ruscett>. ▼



1960s

Brock Cordes '65 — “Appointed president and CEO of International Truck Body in Manitoba, Canada. Continuing to lecture full time at the University of Manitoba in Winnipeg. Celebrated 50 years of marriage to Georgia (Church) Cordes in 2016.”

BJ Vinson '67 — “We moved from Oklahoma City to Freeport, Florida. We are now near daughter Tonya in Destin, Florida, and sons Kori and Derek near Atlanta, Georgia.”

Tom Dalton '68 — “June 1, 2016, was my last day on the job at the Diocese of Grand Rapids. I am now retired. After graduating from UAF (U of A in those days), I went to work in TV broadcasting and video production for about 30 years. I went back to school and earned a master's in pastoral studies from Loyola University New Orleans. I worked in a parish for three years then obtained a job with the Diocese of Grand Rapids as the conference center director and later also taking on the responsibilities of the director of safe environment. My wife Barb, who is also retired, and I live in Grand Rapids, Michigan. We have three adult daughters.”

Mike Stultz '68 — “Just finished writing my memoirs, ‘Wings of Ice,’ to be published in December 2016 about my life of flying, teaching and homesteading in Alaska.”

1970s

Guy Burneko '71 self-published “New Reflections on Things at Hand: Contemplating Ecohuman Sustainability” for Kindle in 2016.



Courtesy of Guy Burneko

Mike Chihuly '75, '79 published “Alaska Fish and Fire” in 2016 with Publication Consultants.



Courtesy of Mike Chihuly

Jean Anderson '77, '80 — “My book ‘Human Being Songs: Northern Stories’ was a finalist for the annual G.S. Sharat Chandra Prize in short fiction from BkMk Press at the University of Missouri-Kansas City in 2015 and 2016. The collection was published by the University of Alaska Press in the Alaska Literary Series in February 2017.”

Terrence Cole delivers final lecture with heavy dose of humor

Terrence Cole '76, '78 worries about being trapped. By big data. By history. By solemnity.

But mortality? To that he's resigned.

Cole, who retired after the spring semester, told an audience at "The Final Lecture" in Schaible Auditorium on May 23 that he has stage 4 inoperable gastric cancer. He considered titling his lecture "Dead Man Talking."

"I've approached cancer as I did teaching, which some people think wasn't seriously enough," he explained.

His devotion to levity is serious. "To me, humor is the key to all research," he said. "It doesn't have to be a ha-ha joke. But at least if it's entertaining in a way that it really grabs somebody by the neck."

His approach helped him compensate for some self-perceived shortcomings in the classroom: "I'm extremely disorganized. I don't stay on topic. I have a big mouth." Cole won the 1994 Emil Usibelli Distinguished Teaching Award, one of the university's most prestigious.

Writing also should grasp a reader's attention, he said, preferably in the first few lines.

"I often judge a book by its first page," he said.

Traps have grabbed Cole's attention lately. The vast information collected in computers about individuals, and especially their mistakes, could define and limit their futures, he said. History can also trap people, he observed.

Terrence Cole, left, is introduced by his twin, journalist Dermot Cole, at the retiring UAF history professor's "final lecture" in Schaible Auditorium on May 23, 2018.

"It's a wonderful thing to blame all your problems on," he said. "Humans have been horrible to each other ... and, if you focus on that or are obsessed, you can't escape from it."

Such traps threaten the freedom underpinning American liberal society, he warned.

In 1972, Cole followed his older brother Patrick from Pennsylvania to UAF, where he received a bachelor's degree in Northern studies and geography and then a master's in history. In 1988, after Cole earned a doctorate from the University of Washington, UAF hired him as a history professor.

Cole has written numerous books, including "Banking on Alaska: The Story of the National Bank of Alaska," "E.T. Barnette: The Strange Story of the Man Who Founded Fairbanks, Alaska," "The Cornerstone on College Hill" (about UAF's history) and "Fighting for the Forty-Ninth Star" (about Alaska's quest for statehood).

Cole said he hopes to finish another book about the Klondike gold rush and the man who launched it.

He already has an opening line: "Nobody ever said that George Washington Carmack could not tell a lie."



1980s

Michael Abels '80 was inducted into the Masters Hall of Fame, recognizing excellence in the martial arts, in June 2016 in San Antonio, Texas.

Dennis Ensor '80 — “I retired from Thomson Reuters in February 2017 after a 28-year career in sales. My wife Holly and I purchased a Pet Wants Franchise to keep me busy, as I am not ready for the rocking chair yet. Our franchise is a mobile pet food delivery service and the food is a proprietary formula made in the USA with a target market of pet owners that care about their pet’s nutrition. I will be traveling to Alaska in July 2017 for my niece Brooke Underwood’s wedding.”

George W. Miller '80 — “This is an update (my first), 36 years after graduating. I graduated in '80 with a B.A. in justice studies, then went to grad school in Texas, thanks to Professor Ken Stockholm. And then did a career in the Alaska Department of Corrections. I was well prepared for it all thanks to professors like Sarkis Atamian, Andrea Helm and Patricia Sheehan. I’m very indebted to all of them and think very fondly on those wonderful years at UAF. My luck has continued and I’m now in Chicago. I’m retired and am goofing off on a daily basis. Oh yeah, and goofing off includes reading (thanks, Ms. Sheehan) and engaging in critical thinking (thanks, Drs. Helm and Atamian) and traveling (thanks, UAF).”

Margaret Nelson '80 recently opened her own real estate brokerage in Anchorage. Denali Real Estate specializes in residential and commercial real estate services in the Anchorage bowl.

Michael Travis '80, '86 — “Published a book titled ‘The Landmen: How Alyeska Secured the Pipeline Right-of-Way’ available in bookstores and on Amazon.com.”

Michelle Boutin '83 joined the Landye Bennett Blumstein law firm in its Anchorage office in fall 2017. Her practice focuses on bankruptcy, collections and creditors’ rights, civil litigation, and construction law. She received her Juris Doctor from Hamline University School of Law. ▼



Tricia (Olsen) Brown '83 — “Currently working with photographer Jeff Schultz on ‘Icons of the Iditarod,’ a coffee table book to be released in December 2017. I was the first editor of The Sun Star after the Polar Star was merged with the Northern Sun. After graduating with a B.A. in journalism, my career took me from features editor at the News-Miner (founding editor of Heartland) to writing for the Anchorage Daily News and We Alaskans, and, eventually, to editor-in-chief of Alaska magazine. I’ve been in book publishing since 1998, when my first two books were released: ‘Children of the Midnight Sun’ (Alaska Northwest Books) and ‘Iditarod Country’ (Epicenter Press). Since then, I have written more than

30 books, including nine for children. See more at www.triciabrownbooks.com.”

Tom Reedy '84 — “After graduating, I worked for the U.S. Forest Service at Portage Glacier, but that ended in September and with no prospects for the winter, I drove back East. I worked for the Chesapeake Bay Foundation for awhile doing environmental education, then went back to cabinetmaking again, then landed a position with Baltimore County as a pollution control analyst, where I still am, as a water scientist. I often still remember things from way back at UAF, like something Sam Harbo or Alan Jubenville said that stuck with me all these years. I brag about UAF every chance I get! I have been married since 1995 and have two teens finishing up high school and starting the whole college thing. That takes up most of my spare time these days. I also still play old time Appalachian string band music, which I first heard in the Wood Center! I hope old UAF buddies will contact me at treedy56@comcast.net.” ▼



Scot Menzies '86 — “Running my own engineering and surveying firm in Ketchikan again with projects all over Southeast Alaska. I’ve been in Ketchikan for 28 years now, with three boys aged 19 (twins Duncan and Chandler) and Shane, 17. I took Shane to visit UAF this winter in hopes he’ll choose to attend there for an engineering degree in another year. His campus tour with the admissions office took us to fourth floor Moore Hall, where I lived for four years. Same thing happened when I took Duncan to visit two years ago. I still love to visit the campus and see old friends there.”

Jeff Roach '87 received the American Association of Airport Executives certified member accreditation. To become an AAAE certified member, airport executives complete an examination and application process. Jeff is the airport manager at Fairbanks International Airport, where he oversees all airport activities.

1990s

Mariko Shirazi '96 was named the first University of Alaska President’s Professor in Energy, a permanent, senior faculty position within the UAF College of Engineering and Mines. Shirazi earned an engineering degree at UAF and a doctorate at the University of Colorado before joining the National Renewable Engineering Laboratory. Her work has emphasized the design and control of power electronics for microgrid applications.

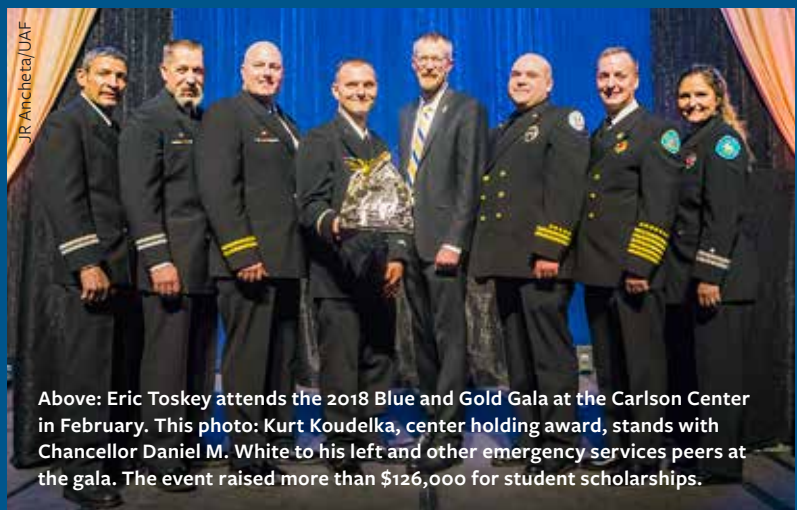
Koudelka, Toskey receive alumni awards

Eric Toskey '86, '90 received the Distinguished Alumnus Award and **Kurt Koudelka '95, '96** received the William R. Cashen Service Award from the UAF Alumni Association. The awards were presented during the 2018 Blue and Gold Gala on Feb. 9 in the Carlson Center.

Eric, a 1982 Lathrop High School graduate, earned bachelor’s and master’s degrees in petroleum engineering from UAF. During 20 years with the Schlumberger company, he visited or lived in 40 different countries — ironic because one reason he studied petroleum engineering was to stay in Alaska. In 2009, Eric and his family returned stateside. He’s now CEO at Letton Hall Group, a Houston-based engineering firm. Eric continues to innovate, and he has proudly hired UAF graduates. He is married to Shawn, and they have four children.



Kurt, a 1993 Lathrop graduate, worked as a student firefighter at UAF while earning two associate degrees and becoming an EMT III. After paramedic school in Oregon, he joined the Tualatin Valley Fire Department, where he is a lieutenant paramedic. Kurt helped create the alumni association’s Student Firefighters Chapter. He helps in schools, drives for Meals on Wheels and volunteered with medical teams after hurricanes Katrina and Rita. Kurt is married to Caroline, and they have two daughters.



Above: Eric Toskey attends the 2018 Blue and Gold Gala at the Carlson Center in February. This photo: Kurt Koudelka, center holding award, stands with Chancellor Daniel M. White to his left and other emergency services peers at the gala. The event raised more than \$126,000 for student scholarships.

Dima Kulmanovsky '97, '99 received the Coach of the Year Award from the Fairbanks Hockey Hall of Fame in February. Read more at <http://bit.ly/AuroraCN-Kulmanovsky>.

Don Rearden '97 received a 2017 Alaska Literary Award for fiction from the Alaska Arts and Culture Foundation in partnership with the Alaska State Council of the Arts. He is a faculty member at the University of Alaska Anchorage.

George Divoky '98 was featured in Audubon's winter 2017 issue covering his longtime Cooper Island research on seabirds. Read it at <http://bit.ly/AuroraCN-Divoky>.

Danielle Kleinhans '98 was named president and chief executive officer of the Concrete Reinforcing Steel Institute in Schaumburg, Illinois, in fall 2017. CRSI is a technical institute and standards-developing organization and the authoritative resource for information related to steel-reinforced concrete construction.

2000s

Carolyn Kincaid '00 — “Living in Niceville, Florida, but working for an Alaska-based company, Kanaga Environmental Consulting, as a project specialist and lead technical writer. So grateful for my time at UAF, and thrilled to be working with fellow UAF graduates!”

Deborah Cynar '04, '08 — “I was a finalist for Educator of the Year with the South Carolina Technical Education Association based on peer nominations, and this was the first

year eligible since accepting a faculty position at Trident Technical College in Charleston, South Carolina.”

Michelle Hutchison '04 is engaged to fellow alumnus **Matthew Rawlings '07, '08**. They are currently living in Colorado Springs and will be married in Fairbanks in summer 2018.

Gary Schofield '06 was nominated by President Trump as U.S. marshal for Nevada in October 2017. He retired in 2017 as deputy chief of the Las Vegas Metropolitan Police Department after 32 years with the department.

Mary Feldt '08 — “Moved to Michigan in May 2017. Began working as the human resource manager for All Seasons Express in Kalamazoo. Before moving to relocate with family, worked as assistant human resource manager with DHSS with the State of Alaska in Juneau, Alaska.”

Jill Michalak '08 became the first female packer in Glacier National Park's backcountry mule packing program in fall 2017. Read more at <http://bit.ly/AuroraCN-Michalak>.

James Harris '09 was named the 2017 Alaska Teacher of the Year. He is the chair of the English Department at Soldotna High School and has taught English there for seven years. He also coaches youth hockey.

Rachel Roy '09 is executive director of the Greater Sitka Chamber of Commerce, which received the local chamber of the year award from the Alaska State Chamber of Commerce.

Kelly Ward '09 was named a 2016 40 Under 40 Honoree by CPA Practice Advisor. She works at Robinson & Ward in Fairbanks. Read more at <http://bit.ly/AuroraCN-Ward>. ▼

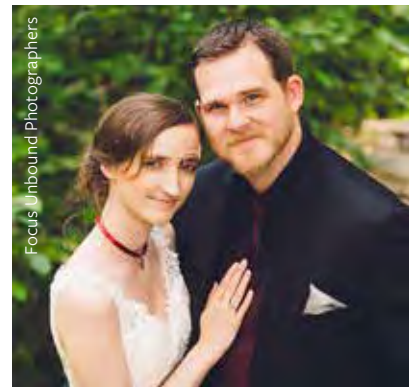


Courtesy of Robinson & Ward

2010s

Matt Gilbert '10, '13 self-published “Sitting at their Feet: Gookwai eeghai Dhidii” in 2017.

Michael Davis '12 and **Brandon Lewsader '13** were married in Ester, Alaska, on June 24, 2017. Brandon is an English teacher at Ryan Middle School, and Michael is the office manager/HR director for Mountain View Eye Center in Fairbanks. ▼



Focus Unbound Photographers

Michael Johnson '12 was named Alaska's commissioner of education in fall 2016. He previously served as the superintendent of the Copper River School District.

Hannah Foss '13 won the grand prize in a Kung Fu Panda-themed design contest created by China-based Hainan Airlines. Her design was painted on a company Boeing 787 Dreamliner. View her design at <http://bit.ly/AuroraCN-Foss>. Hannah is a digital artist and computer-generated imagery animator at the UAF Geophysical Institute.

Brett Martino '14 — “Married in Houston, Texas, working for Exxon-Mobil.”

Rick Lader '15 won the Seattle Marathon in his first attempt in November 2017. He finished fourth in the Equinox Marathon in Fairbanks just two months before. Read more at <http://bit.ly/AuroraCN-Lader>.

Logan Hanneman '16 represented the U.S. in cross-country skiing at the 2018 Winter Olympics in Pyeongchang, South Korea, alongside his brother, Reese, who also attended UAF. ▼



Ingrid White '16, '17, and Phillip White '16 — “We were married on June 4, 2016, in Anchorage. We now live in Juneau.”

Olivia Esera '17 — “All is great! Enjoying my courses this semester, teachers have been awesome.”

Joshua Rathbun '17 — “Since graduating I have volunteered at two different Bible camps and taken trips to Korea, Japan and Thailand.”

Andrew Jacob Taylor '17 works in private industry in Miami, Florida.

Matriculates

Alan Chaddon — “Thirty-five years after quitting smoking, I became a cancer survivor when my left kidney, which was filled with renal cell cancer from smoking, was removed. A marvelous feeling to be free of cancer but a word of caution to those who smoke. It can hit you 35 or more years later. Ignoring it can be deadly.”



Jake Poole, vice chancellor emeritus — “In 1997, the UAF Alumni Association took a chance on a retiring U.S. Army officer,

LJ Evans wore her UAF ballcap daily in March and April 2018 as she and a friend walked 400 miles across Spain on the Camino de Santiago, a medieval pilgrimage route. After a few hundred years of declining traffic, the Camino became once again a popular destination about 40 years ago. This photo is in Ponferrada, where they walked all over the Castillo de los Templarios, a huge castle originally built by the Knights Templar. The order was founded initially to protect people on pilgrimages, not only to Jerusalem but also on the Camino in Spain. ▼



with no university experience except teaching ROTC, not an alumnus of UAF, a nontraditional choice to say the least. Well, 15 years later I retired after the best second career possible, one I always wanted and loved. I filled a few positions while at UAF and thoroughly enjoyed each one. The students, staff, faculty, alumni and community members are unmatched and assisted me every day. You are all still very special to Janice and me. Thank you UAF for taking a chance on me and allowing me to spend 15 wonderful years at a world-class university.”

- Vilas “Jerry” Adams, matriculate**, April 5, 2018, Murrells Inlet, South Carolina
- Casey Ahkvaluk ’87**, July 25, 2017, Anchorage, Alaska
- Ed “Bubba” Ashby ’53**, Feb. 10, 2018, Fairbanks, Alaska
- Nancy Bachner, retired director of Conferences and Special Events**, Feb. 6, 2018, Fairbanks, Alaska
- Albert W. Balvin ’58**, June 27, 2017, Hamilton, Montana
- George E. Bell, matriculate**, Aug. 21, 2017, Fairbanks, Alaska
- Randall D. Bergt ’80**, Nov. 22, 2017, Anchorage, Alaska
- Maryann Bozza ’09**, Dec. 28, 2017, Newport, Oregon
- William G. Brown ’87**, Jan. 17, 2018, Waco, Texas
- William F. Buchanan, matriculate and former Community and Technical College instructor**, Sept. 28, 2017, Fairbanks, Alaska
- Brad Buma, former Community and Technical College instructor**, Nov. 9, 2017, Fairbanks, Alaska
- Gerald G. Carpluk ’98**, Nov. 17, 2017, Fairbanks, Alaska
- Albert J. Charlton ’74, ’77**, Aug. 29, 2017, Ketchikan, Alaska
- Carroll “Susy” Collins, matriculate**, Dec. 1, 2017, Georgetown, Colorado
- Ronald “Gene” Cox ’64**, Nov. 20, 2017, Highlands Ranch, Colorado
- Jan Christian Dabney ’78**, Feb. 5, 2018, Rancho Cucamonga, California
- Beverly Davis, matriculate**, Dec. 22, 2017, Las Vegas, Nevada
- Alvida C. Dickerson ’85**, Jan. 31, 2018, Pickens, South Carolina
- Donald H. Dinkel, professor emeritus**, Jan. 13, 2018, Wasilla, Alaska
- Carl A. Divinyi ’64**, Jan. 4, 2018, Palmer, Alaska
- Julie Maybrier Donahue ’97**, Jan. 6, 2018, Kentucky
- Timothy D. Dooley ’76, ’78**, Dec. 2, 2017, Anchorage, Alaska
- Dorothy Dublirer, matriculate**, Dec. 20, 2017, Carmichael, California
- Thomas E. Egan ’71**, Aug. 10, 2017, Olympia, Washington
- Gladys T. Fancher ’67**, April 1, 2018, Anchorage, Alaska
- James E. Fischer ’99**, Aug. 28, 2017, Henderson, Nevada
- Diane E. Fleming ’63**, Dec. 15, 2017, Anchorage, Alaska
- James A. Forbes ’65**, Aug. 10, 2017, Austin, Texas
- Theresa L. Foster ’72**, Oct. 13, 2017, Happy Valley, Oregon
- Michael W. Franks ’74**, Jan. 9, 2018, Anchorage, Alaska
- Arthur Fulsaas, matriculate**, July 14, 2017, Fairbanks, Alaska
- Lara Sue Hensley Garno ’94, ’03 and former assistant professor of human services at Interior Alaska Campus**, March 30, 2018, New Mexico
- Bruce R. Gilbert ’61**, Aug. 29, 2017, Haines, Alaska
- Viola J. Golia ’91**, March 25, 2018, Anchorage, Alaska
- Barbara L. Gorman ’79**, Jan. 16, 2018, Fairbanks, Alaska
- Anthony J. Gutowski, retired Facilities Services employee**, Aug. 12, 2017, Fairbanks, Alaska
- Vincent S. Haneman, dean and professor emeritus**, Aug. 29, 2017, Columbus, Georgia
- Curlene L. Harker ’53**, Dec. 27, 2017, Anchorage, Alaska
- Thomas J. Head ’54 and professor emeritus**, Nov. 10, 2017, Vestal, New York
- Myra J. Heaps ’06**, Nov. 7, 2017, Fairbanks, Alaska
- Marilyn H. Herreid ’50**, Feb. 2, 2018, Fairbanks, Alaska
- Bowman Hinckley, matriculate**, Jan. 30, 2018, Fairbanks, Alaska
- Brooks M. Hollern ’76**, Dec. 15, 2017, Port Angeles, Washington
- Lance Charles Hughes ’78**, Feb. 21, 2018, Anchorage, Alaska
- Mark R. Isaacson ’15**, Dec. 10, 2017, Fairbanks, Alaska
- George E. Jacobs ’70**, Sept. 3, 2017, Tok, Alaska
- William R. Jensen, former Facilities Services employee**, Oct. 20, 2017, Mishawaka, Indiana
- Michael Shane John ’13**, Aug. 29, 2017, Circle, Alaska
- Robert W. Johnston ’92**, Sept. 4, 2017, Villa Rica, Georgia
- Janet “Jann” M. Jones ’62**, Dec. 19, 2017, Salina, Kansas
- Calvin Klein ’66**, Aug. 1, 2017, Philadelphia, Pennsylvania
- Zeno “Bud” LeRoy Keeling, matriculate**, Aug. 8, 2017, Spokane, Washington
- Keith T. Kornelis ’71**, Oct. 27, 2017, Kenai, Alaska
- Gary Allen Lewis, matriculate**, March 9, 2018, Salem, Oregon
- Scott B. Loll ’70**, March 17, 2018, Thousand Oaks, California
- John C. Loperfido ’66, ’68**, March 11, 2018, Stillwater, Minnesota
- Linda L. Marshall ’88**, Feb. 11, 2018, Fairbanks, Alaska
- David L. McCaleb, matriculate**, Jan. 15, 2018, Fairbanks, Alaska
- Wilma L. McCullough ’86**, Oct. 14, 2017, Nampa, Idaho
- Lawrence G. Meyer ’66, ’69**, Sept. 15, 2017, Anchorage, Alaska
- John M. Miller ’60, ’68 and engineer emeritus**, Nov. 6, 2017, Fairbanks, Alaska
- James Edson Moody ’55**, Nov. 22, 2017, Fairbanks, Alaska
- Kris Ann Mountain ’91 and former Rural Student Services employee**, Dec. 15, 2017, Fairbanks, Alaska
- Anthony Paul Mullin ’16**, Dec. 4, 2017, Anchorage, Alaska
- Leonard M. Neidhold, matriculate and former Summer Fine Arts Academy instructor**, March 26, 2018, Reno, Nevada

Vivian Denise (Reed) Osborne '99, '00, March 1, 2018, Fairbanks, Alaska

Robert H. Parkerson '77, Aug. 16, 2017, Palmer, Alaska

Steven J. Person '75, Feb. 11, 2018, Sault Ste. Marie, Michigan

Linda D. Westre Pfisterer '88, April 16, 2018, Ester, Alaska

Gary J. Phillips, matriculate, Dec. 10, 2017, Anchorage, Alaska

Jane E. Rambeck '68, Dec. 13, 2017, Saint Paul, Minnesota

Roger F. Ruiz '94, Oct. 31, 2017, Fairbanks, Alaska

Lloyd "Scotty" Mifflin Scott '64, April 4, 2018, Cocoa Beach, Florida

Steven R. Sindelir '94, Sept. 10, 2017, Baudette, Minnesota

Barbara Sjoden '76, Oct. 4, 2017, Santa Margarita, California

Patrick James Smith '17, July 27, 2017, North Pole, Alaska

Andrew N. Stefan '12, March 25, 2018, Fairbanks, Alaska

Ramona Renee Taylor '09, '10, '15, March 18, 2018, Fort Lee, Virginia

Bob C. Thomas '71, '79, Sept. 17, 2017, Fairbanks, Alaska

Lindalee Twogood '79, Oct. 10, 2017, Fairbanks, Alaska

Ralph L. Vanorden '90, Jan. 5, 2018, Emmett, Idaho

Charles C. Von Gunten '70, Dec. 11, 2017, Palmer, Alaska

Frederick W. Walatka '59, March 30, 2018, Anchorage, Alaska

Muriel E. Wattum '70, Sept. 17, 2017, Palmer, Alaska

Florence R. Weber '87H*, Jan. 18, 2018, Fairbanks, Alaska

Brett D. Weller '17, Oct. 22, 2017, Fairbanks, Alaska

Clifford A. Wells '64, April 12, 2018, Wiscasset, Maine

Jason D. Williams '92 and former Geophysical Institute employee, Jan. 29, 2018, Fairbanks, Alaska

Francis S.L. Williamson, director emeritus, Institute of Arctic Biology, Aug. 16, 2017, Fairbanks, Alaska

Charles R. "Buck" Wilson '63 and professor emeritus, Oct. 22, 2017, Fairbanks, Alaska

Bobbie Jean Woods '70, Dec. 10, 2017, Fairview, Oklahoma

*H = honorary degree



Walter J. Benesch, professor emeritus of philosophy, died Sept. 1, 2017. Benesch began teaching at UAF in 1963. He and his wife, Renate, raised a family in Fairbanks. He studied Eastern philosophy, comparative religions and logic. After retiring in 1997, he donated his time to the university, teaching

classes each year. He was named outstanding teacher after his first year at the university and again in 1997.



Poldine Carlo '01H*, who helped found the Fairbanks Native Association, died May 9, 2018. Carlo's grandparents raised her in the Yukon River village of Nulato after she was orphaned. She met her husband, gold miner Bill Carlo, after moving to Tanana. They raised eight children.

The couple lived in Ruby, Galena, Tanana and Rampart but eventually moved to Fairbanks.



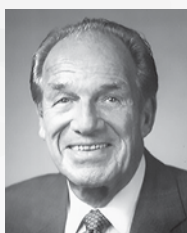
Melissa Ann Downes '86, '93, a music educator, died Jan. 28, 2018 in Fairbanks. Downes came to Fairbanks from Vermont in the 1970s. She married Robert Downes. They have one daughter. After studying psychology and music at UAF, Downes taught music in Fairbanks for over 20 years.

She founded and directed the Northland Youth Choir and participated in the UAF Summer Fine Arts Camp.



Joe Lynn Hayes '66, a former Alaska legislator, died Feb. 16, 2018. Hayes came to Alaska in 1946. He earned a master's in engineering management at UA and helped found Tryck, Nyman and Hayes. Elected as an Anchorage Republican in 1976, he served as the 1983-84 House speaker. He then spent

decades as one of Alaska's top lobbyists. He and his wife Diane, who died in 2015, had three daughters.

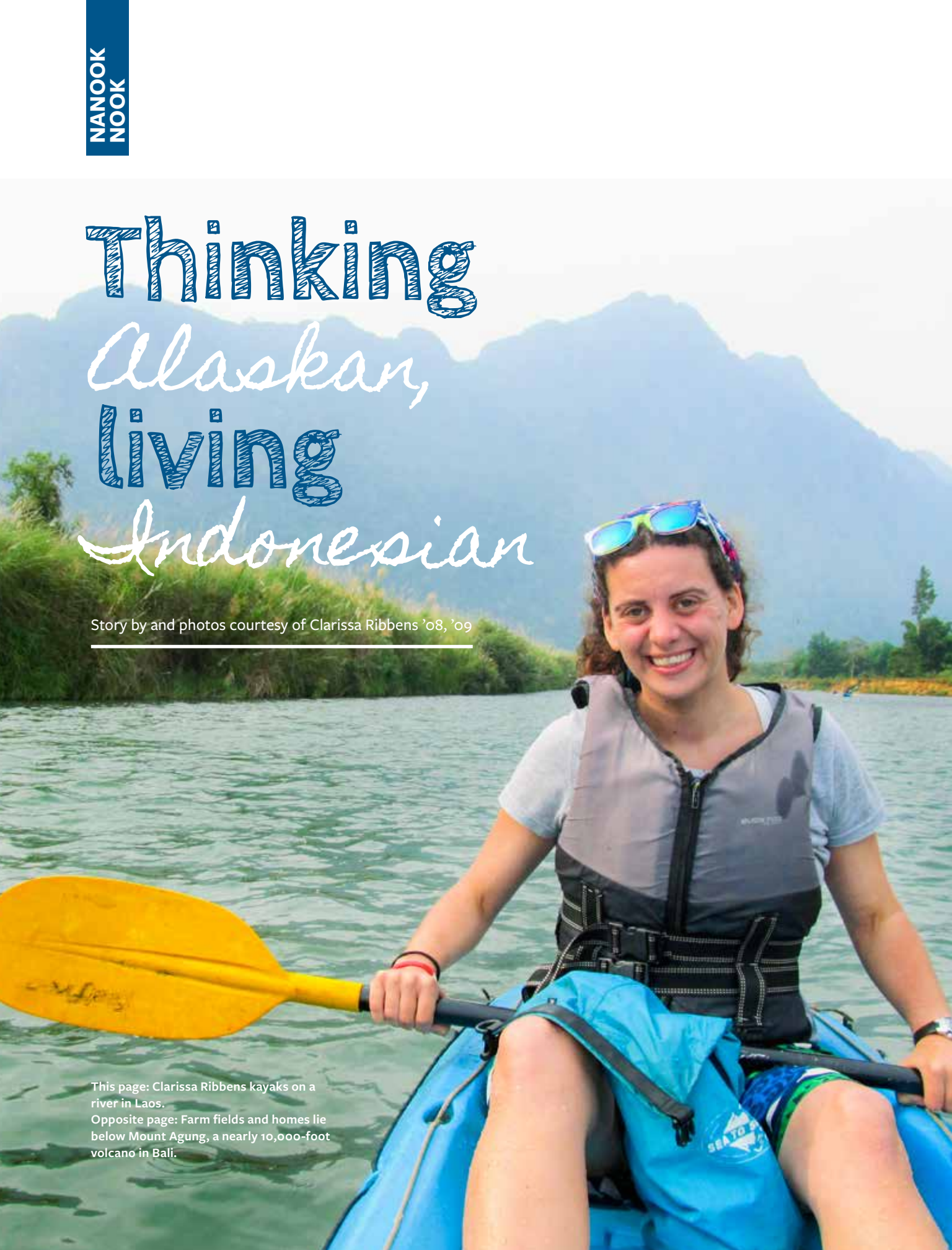



Patrick O'Neill '41, '53, '76H* died Feb. 15, 2018 in Connecticut at the age of 102. He was born and raised in Cordova, earned science and mining engineering degrees from UA, and then flew B-17s for the Army Air Corps in World War II. Returning to Fairbanks, O'Neill became superintendent of gold dredges and earned an engineer of mines degree. In 1953, he went to South America, launching a half-century career in mine management. He was named a distinguished alumnus in 1971. He was inducted into both the Alaska and national mining halls of fame. O'Neill married his wife, Sandra, in 1967, and they have two children. He titled his autobiography "From Snowshoes to Wingtips."

Thinking Alaskan, living Indonesian

Story by and photos courtesy of Clarissa Ribbens '08, '09

This page: Clarissa Ribbens kayaks on a river in Laos.
Opposite page: Farm fields and homes lie below Mount Agung, a nearly 10,000-foot volcano in Bali.





I checked my watch under the shade of a palm tree, squinting in the blazing equatorial sun. March 19, it blinked. "Almost equinox," my Alaskan side remarked automatically, "snow should be melting soon." And I nearly laughed out loud because, on this tropical island only 6 degrees south of the equator, snow definitely isn't an issue.

I was born and raised in the 907 — Alaska-grown and proud of it. I love snow, skiing and the northern lights. I moved to Java, Indonesia, after graduating from UAF with bachelor's degrees in history and education. After seven years here, I still catch myself making Alaskan assumptions about some very un-Alaskan things, like marking solstice in a place where the days have exactly 12 hours of light and 12 of dark.

For months during my first year here, I'd assume the two-stroke motorbikes whizzing past my bedroom window were snowmachines tearing around in the dark. I've met people here who've never heard of

salmon, and my mind can't quite wrap itself around that impossibility.

In a land of two seasons, hot-and-dry or hot-and-raining, holidays catch me off guard because I don't have the normal weather indicators to prompt my memory. "My brother's birthday is when it's starting to be cold" doesn't work here. Instead, I mark time by watching the rice grow in the padi next to our playground. First come the brilliant green sprouts, in rows dented by water-filled footprints. Then the slender stalks grow waist-high until finally the rice-heavy heads are ready to harvest. It always reminds me of the



line from “America the Beautiful,” which I never could relate to as an Alaska child: “for amber waves of grain.” “For berry-laden bushes,” made more sense then, but now I’ve seen waves of grain. They just happen to be rice instead of wheat.

Despite all the differences, there have been some surprising points of commonality as well. The dry cabin experiences of my Fairbanks childhood result in points of affinity which people in the rural islands never expect. They’re shocked to learn that the fishing nets they repair aren’t too different from the





nets I mended during my two summers as a commercial salmon fisherman. I can talk about the tides in beachside villages because I spent six years living on Cook Inlet.

I've been asked dozens of times if I moved to escape the cold. I haven't. I moved to follow my passions. Growing up, I always wanted to live in another country but assumed it wasn't possible. Partway through my studies of education and history at UAF, I realized that I was acquiring skills that opened the world to me — there are children everywhere, and English is a

highly sought-after skill. Indonesia is where I landed, teaching at a small Christian school, which allows me to do what I love — teach and travel. I'll never fully fit in here, but discovering the differences and similarities between my two homes is endlessly entertaining! 🇮🇩

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Clockwise from top left:
Kids from the Riau Islands swim near homes set on pilings.
Fishing boats dot a bay on Lombok, the next major Indonesian island east of Bali.
A woman works in a tea field on Java.
The author visits with local girls in the Riau Islands.
Two boys fly kites on Java.
Ribbens' students explore new classroom technology.



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The aurora shimmers above Wood Center, in foreground, and the Fairbanks campus on Nov. 20, 2017. University Relations student photographer Zayn Roohi '18 took the picture from the Gruening Building's roof. For more of Roohi's work documenting life at UAF, watch the video, "Life in Sub-Arctic Alaska," at <http://bit.ly/Aurora-video>.

